

# Series 45 Catalogue

www.eao.com



# Expert manufacturers.

# EAO creates possibilities. Since 1947.



Founding year: 1947
Number of employees: 600
Headquarters: Olten, Switzerland
Manufacturing Companies: Switzerland,
Germany, North America, China

Sales Companies: 11 Distribution countries: 50

Core markets: Transportation, Automotive, Heavy Duty & Special Vehicles, Machinery EAO AG, a Swiss, family-owned company founded in 1947, has developed into one of the world's leading manufacturers of high-quality industrial switches, complete custom HMI panels and interface systems, and specialised automotive switch systems.

Efficient and modern development processes, effective global supply chains and skilled project and consultation management represent additional services that we offer our customers and business partners around the world.

### Your solution-focused expert and partner

We do much more than just manufacture individual control elements. As a solution-focused partner, we provide the option of technically and mechanically customizing existing HMI Components in line with our customers' individual requirements. From simple control elements through to sophisticated HMI Systems, from serial production through to installation – we offer the entire range of HMI services and inspire the confidence of our customers.

# Customer-oriented.

# More than an expert, a partner.







Being close to customers and able to offer a comprehensive range of services are fundamental to our success and at the core of our corporate policy.

EAO's production sites in Switzerland, Germany, North America and China combine volume production, development, research, and logistics. In addition to these centres of competence, EAO has 11 sales companies around the world at its disposal.

Thanks to this comprehensive network and our 50 distribution companies in the major industrialized countries, EAO is represented wherever interactions between humans and machines play key roles.

# Control.

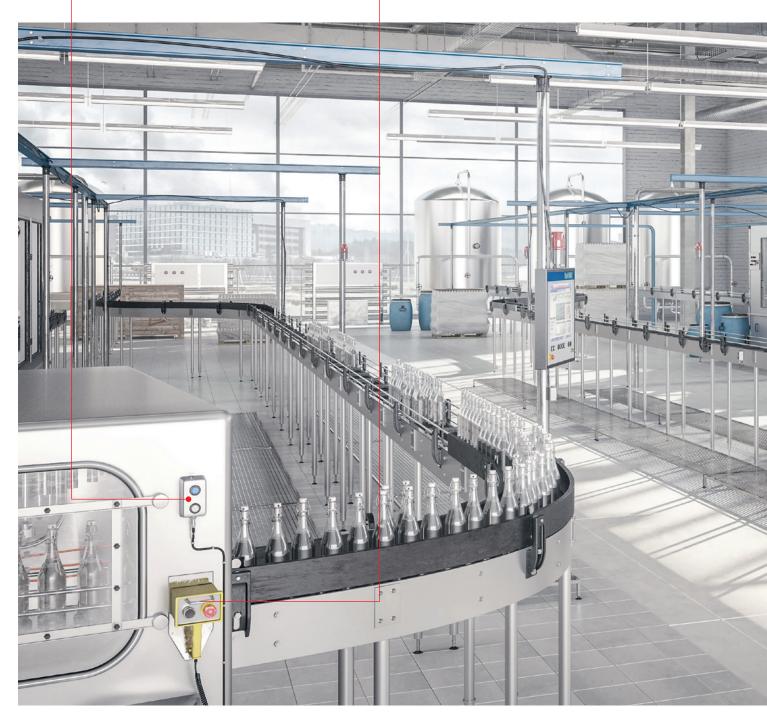
# For every application.

### Operator Device

Actuators and indicators for controlling specific and basic machine functions.

### Handheld Control Unit

 $HMI\ solutions\ for\ mobile\ control\ units.$ 



Regardless of the industrial demands placed on our HMI Components and Systems, reliability, longevity, intuitive operation and safety are always at the heart of our products and solutions. Our aim is to provide control over these processes and to afford machine operators the greatest possible level of protection at all times.

### Main Operator Panel

HMI Components and Systems for main control units for the overall control of machinery.



# Series 45.

# Modular, aesthetic and robust in use.



# Innovative and comprehensive

Series 45

EAO's Series 45 unites an extremely broad range of machine operating functions with outstanding technical properties. Penetration by dust and liquids is prevented even under the most adverse conditions.

### Robust industrial control system

Resistant to aggressive cleaning agents, oils, dyes and other chemical substances, the actuators and indicators of the new Series 45 work perfectly each and every time. Our HMIs literally keep their cool in the face of high humidity and extreme fluctuations in temperature. Functionality is preserved even when the control units are subjected to dust or water at high pressures (IP69K). Series 45 is ideal for use in the most adverse conditions.

### High level of modularity

Their modular construction ensures that our HMI Components all operate smoothly with each other. They are straightforward to install and can also be integrated easily into decentralised systems.

### Full functionality

Every conceivable HMI function can be performed by products from Series 45. Pushbuttons, illuminated pushbuttons, indicators, selector switches, keylock switches, toggle sticks and emergency stop switches are capable of handling all major functions.

### Major benefits

- Comprehensive Series
- Easy to use, modular construction and rapid assembly without special tools
- Rugged in use; IP69K front protection and metal models
- Modern design thanks to flush mounting, attractive illumination and metallic or plastic appearance
- Low energy consumption thanks to LEDs
- Long service life (up to 10 million switching cycles)

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# 45 Numbering structure

## Indicator

	45 -	2	T	XX	. X	X	X	0	. 0	0	0
Actuator		_	_		_	- —	_	_			_
T = Indicator											
Function		- —	—			- —	—	—	_	- —	
00 = Full face illumination			_					_			
07 = Front illumination											
Material		_	_			_	_	_			_
1 = Plastic											
2 = Metal									••••		
3 = Metal/plastic					•••••						
4 = Metal/matt									•••••		
Shape of handle or front ring		- —				-					
F = flush		_						_			
0 = raised											
Colour		- —				- —	_		_		
E = red transparent			_			_		_			
F = amber transparent					• • • • • • • • • • • • • • • • • • • •		•••••	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		
G = yellow transparent				••••••			• • • • • • • • • • • • • • • • • • • •				
H = green transparent											
J = blue transparent			•				•••••	•••••	• • • • • • • • • • • • • • • • • • • •		
K = colourless transparent				•••••••	• • • • • • • • • • • • • • • • • • • •		••••••	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		•••••
N = white transparent					• • • • • • • • • • • • • • • • • • • •		•••••	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		

### Pushbutton

	45 -	2	1	XX	X	X	Х	0	0	0 0
Actuator			_		_			_	_	
1 = Pushbutton										
Function			_			_		_	_	
31 = 2 positions, momentary										
34 = 2 positions, maintain, push to release										
Material		- —	_					_	_	
1 = Plastic										
2 = Metal										
3 = Metal/plastic										
4 = Metal/matt								·····		
Shape of handle or front ring			—		_	-		_	-	
1 = raised/lens level with front ring										
2 = raised/lens raised above front ring										
3 = raised/lens lower than front ring										
4 = raised/lens lower than front ring, with castallations								·····		
F = flush										
Colour			—			· —		_	_	
1 = black										
2 = red					******					
4 = yellow					******					
5 = green					******					
6 = blue					******					
8 = grey					******				••••••	
9 = white					******				*******	
K = clear transparent					******					

# 45 Numbering structure

### **Double pushbutton, Double pushbutton illuminated**

	45 -	2	X	ХХ		Х	X	0		0	0	0
Actuator		_	_		-					_	_	_
J = Double pushbutton					_				•			
K = Double pushbutton illuminated												
Function			—		-					_		—
31 = 2 positions, momentary												
Material		_	_		-					_	_	_
1 = Plastic												
2 = Metal												
3 = Metal/plastic												
Shape of handle		—	—		-				-			—
5 = 2 lenses level with front ring												
6 = lens level with front ring/ lens level raised above front ring												
Colour		_	_	_	-					_	_	_
T = green/red					_				-			
V = white/black												

### Illuminated pushbutton

	45 -	2	2	XX	. X	X	X	0		0 (	0	0
Actuator			_		_		_	_	-			_
2 = Illuminated pushbutton												
Function			_		_		_	—	-			_
31 = 2 positions, momentary									_			_
34 = 2 positions, maintain, push to release												
Material			_				_	_	-			_
1 = Plastic									_			_
2 = Metal												
3 = Metal/plastic												
4 = Metal/matt												
Shape of handle or front ring			_		_		_	—	-			_
1 = raised/lens level with front ring								_	_			_
2 = raised/lens raised above front ring									•••			
4 = raised/lens lower than front ring, with castallations		• • • • • • • • • • • • • • • • • • • •		•••••••								
F = flush												
Colour			_	—	_		—	_	-			_
E = red transparent			_		_			_	-			_
F = amber transparent												
G = yellow transparent								•				
H = green transparent				•••••••••••	*****			•••••				
J = blue transparent												
K = colourless transparent							••••••					
N = white transparent							••••••					
				•••••••	*****		• • • • • • • • • • • • • • • • • • • •	*******	***			

# 45 Numbering structure

## **Emergency stop switch**

	45 -	2	X	XX	. 2	X	X	0		0	0	0
Actuator		_	_		-				-	_	_	_
C = Emergency stop switch					_				_			
D = Emergency stop switch, illuminated												
Function		_	_	—	-				-	—	_	—
35 = Key to release									_			
36 = Twist to release												
37 = Pull to release												
Material		_			-				-	—		—
1 = Plastic									-			
Shape of handle or front ring			_		-				-			
8 = Diameter 30 mm		_	_		_		Г		-			
9 = Diameter 40 mm					•••							
A = Diameter 60 mm												
Colour			_		-				-	—	_	
2 = red		_	_		_				-			

## Stop switch

	45 -	2	7	XX	. X	X	X	0	0	0	0
Actuator			_		_	_	_	_	_	_	_
7 = Stop switch											
		_			_		_		_	_	_
Function											
36 = Twist to release											
Material			_		_	_	_	_	_	_	_
1 = Plastic											
Shape of handle or front ring			—		_	_	_	—	_	—	—
9 = Diameter 40 mm											
					_		_		_		
Colour											
1 = black					_	_			_	_	_

# 45 Numbering structure

### Mushroom-head pushbutton

	45 -	2	Χ	XX	. X	X	Х	0	. 0	0	0
Actuator		_	_		_		_	_		_	_
5 = Mushroom-head pushbutton											
6 = Mushroom-head pushbutton, illuminated											
Function		- —					- —	—	-	-	
30 = 2 positions, maintain, pull release											
31 = 2 positions, momentary									•••••		
32 = 3 positions, maintain/momentary, pull release											
Material		- —	_	—			- —	—		-	_
1 = Plastic											
2 = Metal					•····				•••••		
3 = Metal/plastic									•••••		
Shape of handle or front ring		- —	_		_		- —	_	_		_
8 = Diameter 30mm		_					_			_	
9 = Diameter 40 mm									•••••		• • • • • • • • • • • • • • • • • • • •
A = Diameter 60 mm											
Colour			_				- —	_			_
1 = black		_	_					_		_	_
2 = red											
4 = yellow											
5 = green			•••••		• • • • • • • • • • • • • • • • • • • •				•••••		

## Keylock switch

	45 -	2 9	XX	. X X	0 0	. X X X
Actuator						
9 = Keylock switch						
Function						
0C = 3 positions, maintain, key remove L/R						
0D = 3 positions, maintain, key remove L	•••••••••••••••••••••••••••••••••••••••					
0F = 3 positions, maintain, key remove L/C/R						
0G = 3 positions, maintain, key remove L/C						
0H = 2 positions, maintain, key remove L/R						
0J = 2 positions, maintain, key remove L						
0K = 2 positions, maintain, key remove L	•••••••••••••••••••••••••••••••••••••••			*******		
0Z = 3 positions, maintain, key remove C						
11 = 3 positions, momentary/maintain, key remove C						******
17 = 3 positions, maintain, key remove R				*******	***************************************	***************************************
22 = 3 positions, maintain/momentary, key remove C				*******		
24 = 3 positions, maintain, key remove C				*******		
25 = 2 positions, maintain, key remove R		····· <b>·</b> •·····				
Material						
1 = Plastic						
2 = Metal						
3 = Metal/plastic		·····				
4 = Metal/matt		·····				
						*******
Shape of handle or front ring						
F = flush						
0 = raised						
	······					
Lock System						
1 = RONIS						
Key						
1 = T254						
Angle						
1 = 90° (V-Pos)						
3 = 2x45° (V-Pos)		·····				
6 = 45° (0-Pos.12 oʻclock)				*******		
,						

# 45 Numbering structure

### Selector switch

	45 -	2	8	хх	. X	X	X 0		0	0 X
Actuator			_		_	_				
8 = Selector switch								-		
Function		_	_			_				
0S = 3 positions, momentary										
0X = 3 positions, momentary L, maintain R										
16 = 3 positions, momentary R, maintain L										
19 = 3 positions, maintain										
28 = 2 positions, maintain			•							
44 = 2 positions, momentary			•••••							
45 = 4 positions, Maintain, (0-Position 15h/18h/21h/12h										
Material			_			_				
1 = Plastic			_			_				
2 = Metal					******					
3 = Metal/plastic			•••••		******	********		-		
4 = Metal/matt			•		******			-		
			•					-		
Shape of handle or front ring		_	_		_	_		-		
C = short lever		_	_		_					
D = long lever			•		• · · · · · ·			-		
E = round lever								-		
			•					-		
Colour		_	_		_	_		-		
2 = red		_	_		_	_		-		
4 = yellow								-		
5 = green			•	•••••••				-		
6 = blue			•		• • • • • • • • • • • • • • • • • • • •			-		
9 = white			•		• • • • • • • • • • • • • • • • • • • •	•••••		-		
0 - Willio										
Angle		_	_			_		-		
1 = 90° (V-Pos)										
2 = 4x90°			*******	••••••••	*******					
3 = 2x45° (V-Pos)						•••••				
6 = 45° (0-Pos.12 oʻclock)										
			•		• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	-		

### Potentiometer

	45 -	2	Р	XX	. X	X	X	0	. 0	0	0
Actuator		_	_		_		_	_	_		
P = Potentiometer											
Function						- —	_	_			
01 = 100 kOhm											
02 = 10 kOhm											
03 = 1 kOhm					••••				••••		
04 = 4.7 kOhm		•••••									
05 = 470 kOhm	······································	•••••			•						
06 = 47 kOhm											
Material			_		_	- —	_	—	_		_
1 = Plastic											
2 = Metal											
Shape of handle or front ring				—	_	- —	_	—	_		- —
E = round lever											
Colour			_			- —	—	—	_		
1 = black											

# 45 Numbering structure

# Toggle stick

45 -	2	F	XX	. X	X	X	0	. 0	0	0
Actuator	_	_		_	_	_	_	_	_	_
F = Toggle stick										
Function				_	-	—	_			
0T = 2 positions, momentary, L/R										
0V = 4 positions, momentary, L/R/U/D				•••••				••••		
13 = 2 positions, momentary, L/R, lockable C				•••••				••••		
14 = 4 positions, momentary, L/R/U/D, lockable C								•••••		
20 = 2 positions, maintain, L/R	********	*********		******				******		
21 = 4 positions, maintain, L/R/U/D				******				•••••		
26 = 2 positions, maintain, L/R, lockable C				******				•••••		
27 = 4 positions, maintain, L/R/U/D, lockable C			•••••	•••••						
38 = 2 positions, momentary U/D			•••••	•••••						
40 = 2 positions, momentary, U/D, lockable C				•••••				•••••		
41 = 2 positions, maintain, U/D				******						
43 = 2 positions, maintain, U/D, lockable										
	•									
Material	_					_	_			
1 = Plastic	_				_		_			
2 = Metal				******		• • • • • • • • • • • • • • • • • • • •		•••••		
3 = Metal/plastic	•••••			******		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	•••••		
			***********							
Colour	_	_		_		_	_	_		
1 = black	_			-			_			

# Toggle switch

45 -	2	N	XX	Χ	0	1	0	0	0	0
Actuator	_	_		_	_	—			_	_
N = Toggle switch										
Funktion	_	_			_		—		_	_
39 = 2 positions, momentary				_		_	_			
42 = 2 positions, maintain										
Material	_	_		_	_	_	_		_	—
1 = Plastic										
2 = Metal	•••••	••••••								
3 = Metal/plastic										

### Indicator, IP66, IP67, IP69K



Product can differ from the current configuration.

# 35.3 31.2 4.2 31.2

Dimensions [mm]

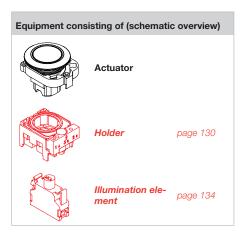
## Mounting depth incl. front plate, see chapter «drawings»

**Additional Information** 

• Front panel thickness 1 ... 6 mm

# 

Mounting cut-outs [mm]

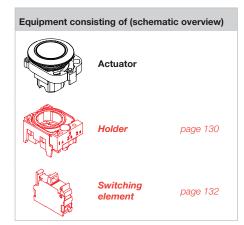


Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

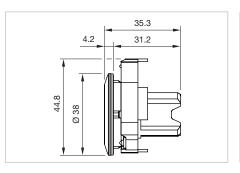
LED colour	Front ring	Lens cap	Part No.	Weight
	Indicator actuator, Front dimension Ø 38	3 mm		
red	Metal sandgrey	Plastic red transparent	45-2T07.4FE0.000	0.048 kg
	Indicator actuator, Front dimension Ø 38	3 mm		
yellow	Metal sandgrey	Plastic yellow transparent	45-2T07.4FG0.000	0.048 kg
Vika				
	Indicator actuator, Front dimension Ø 38	3 mm		
green	Indicator actuator, Front dimension Ø 38  Metal sandgrey	3 mm Plastic green transparent	45-2T07.4FH0.000	0.048 kg
green		Plastic green transparent	45-2T07.4FH0.000	0.048 kg
green	Metal sandgrey	Plastic green transparent	45-2T07.4FH0.000 45-2T07.4FJ0.000	0.048 kg
	Metal sandgrey  Indicator actuator, Front dimension Ø 38	Plastic green transparent  B mm  Plastic blue transparent		

### Pushbutton, IP66, IP67, IP69K



Each Part Number listed below includes all the black components shown in the 3D-drawing.

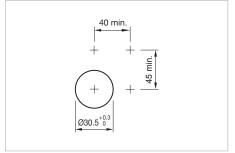
To obtain a complete unit, please select the red components from the pages shown.



Dimensions [mm]



Product can differ from the current configuration.



Mounting cut-outs [mm]

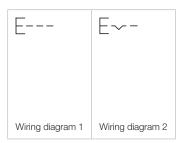
### **Additional Information**

- Mounting depth incl. front plate, see chapter «drawings»
- Front panel thickness 1 ... 6 mm

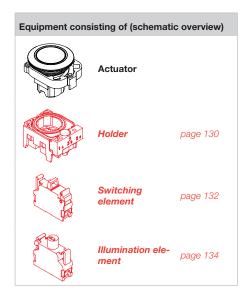
Front ring		Lens	Switching action	Part No.	Wiring dia- gram	Weight
	Pushbutton ad	ctuator, Momentary, Fi	ront dimension Ø 38 mm			
Metal sandgrey		Plastic black	В	45-2131.4F10.000	1	0.048 kg
	Pushbutton ac		ront dimension Ø 38 mm			
Metal sandgrey						
ivietai sai iugrey		Plastic red	В	45-2131.4F20.000	1	0.048 kg
Metal salidgrey	Pushbutton ad		ront dimension Ø 38 mm	45-2131.4F20.000	1	0.048 kg
Metal sandgrey	Pushbutton ac			45-2131.4F20.000 45-2131.4F40.000	1	0.048 kg
		ctuator, Momentary, Fi	ront dimension Ø 38 mm			Ü
		ctuator, Momentary, Fi	ront dimension Ø 38 mm			Ü
Metal sandgrey	Pushbutton ad	Plastic yellow  ctuator, Momentary, Fi	ront dimension Ø 38 mm  B ront dimension Ø 38 mm	45-2131.4F40.000	1	0.048 kg

Front ring	Lens	Switching action	Part No.	Wiring dia- gram	Weight
	hbutton actuator, Momentary, I		, action	F - 21	, morgine
Metal sandgrey	Plastic white	В	45-2131.4F90.000	1	0.048 kg
Pus	hbutton actuator, Maintain, Fro	nt dimension Ø 38 mm			
Metal sandgrey	Plastic black	С	45-2134.4F10.000	2	0.048 kg
Pus Metal sandgrey	hbutton actuator, Maintain, Fro	nt dimension Ø 38 mm	45-2134.4F40.000	2	0.048 kg
Pus	hbutton actuator, Maintain, Fro	nt dimension Ø 38 mm			l
Metal sandgrey	Plastic green	С	45-2134.4F50.000	2	0.048 kg
	hbutton actuator, Maintain, Fro			1.	
Metal sandgrey	Plastic blue	C	45-2134.4F60.000	2	0.048 kg
Pus	hbutton actuator, Maintain, Fro	nt dimension Ø 38 mm			
Metal sandgrey	Plastic white	C	45-2134.4F90.000	2	0.048 kg

Switching action: B = Momentary, C = Maintain

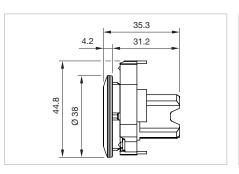


### Illuminated pushbutton, IP66, IP67, IP69K



Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

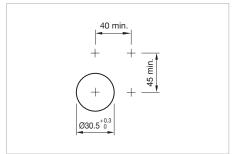


Dimensions [mm]

Mounting cut-outs [mm]



Product can differ from the current configuration.



Additional Information

- Mounting depth incl. front plate, see chapter «drawings»
- Front panel thickness 1 ... 6 mm

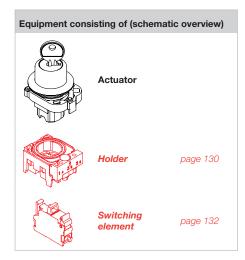
LED colour	Front ring	Lens	Switching action	Part No.	Wiring dia- gram	Weight
	Illuminated pushbutton a	actuator, Momentary, Front (	dimension Ø 38 mm			
red	Metal sandgrey	Plastic red transparent	В	45-2231.4FE0.000	1	0.048 kg
yellow	Illuminated pushbutton a	Plastic yellow transparent	dimension Ø 38 mm	45-2231.4FG0.000	1	0.048 kg
	Illuminated pushbutton a	actuator, Momentary, Front (	dimension Ø 38 mm			
green	Metal sandgrey	Plastic green transparent	В	45-2231.4FH0.000	1	0.048 kg
	Illuminated pushbutton a	actuator, Momentary, Front (	dimension Ø 38 mm			
blue	Metal sandgrey	Plastic blue transparent	В	45-2231.4FJ0.000	1	0.048 kg
	Illuminated pushbutton a	actuator, Momentary, Front (	dimension Ø 38 mm			
white	Metal sandgrey	Plastic colourless transparent	В	45-2231.4FK0.000	1	0.048 kg

LED colour	Front ring	Lens	Switching action	Part No.	Wiring dia- gram	Weight
	Illuminated pushbutton	actuator, Maintain, Front din	nension Ø 38 mm			
red	Metal sandgrey	Plastic red transparent	С	45-2234.4FE0.000	2	0.048 kg
yellow	Illuminated pushbutton  Metal sandgrey	actuator, Maintain, Front din Plastic yellow transparent	nension Ø 38 mm	45-2234.4FG0.000	2	0.048 kg
44						
	Illuminated pushbutton	actuator, Maintain, Front din	nension Ø 38 mm			
green	Illuminated pushbutton  Metal sandgrey	actuator, Maintain, Front din	nension Ø 38 mm	45-2234.4FH0.000	2	0.048 kg
green	Metal sandgrey		С	45-2234.4FH0.000	2	0.048 kg
green	Metal sandgrey	Plastic green transparent	С	45-2234.4FH0.000 45-2234.4FJ0.000	2	0.048 kg
	Metal sandgrey  Illuminated pushbutton  Metal sandgrey	Plastic green transparent actuator, Maintain, Front din	nension Ø 38 mm			

Switching action: B = Momentary, C = Maintain

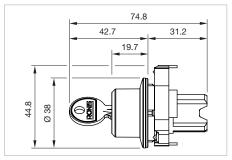
E	E~-
Wiring diagram 1	Wiring diagram 2

### Keylock switch 2 and 3 positions, IP66, IP67, IP69K



Each Part Number listed below includes all the black components shown in the 3D-drawing.

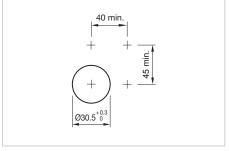
To obtain a complete unit, please select the red components from the pages shown.



Dimensions [mm]



Product can differ from the current configuration.



Mounting cut-outs [mm]

### **Additional Information**

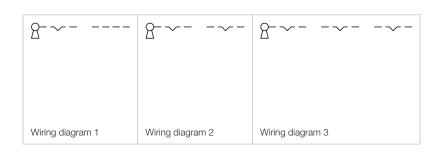
- Mounting depth incl. front plate, see chapter «drawings»
- Front panel thickness 1 ... 6 mm
- The standard lock: RONIS, T254
- Two keys are supplied with each key lock switch

A B A C C A

Switching positions (A = Rest, B = Momentary, C = Maintained)

Front ring	Switching action	Switching angle	Key remove	Part No.	Wiring dia- gram	Weight
A PARTIES AND A	Keylock switch 2 position	•				
Metal sandgrey	A - B	B = 45°	A	45-290J.4F00.116	1	0.090 kg
Metal sandgrey	A - B A - C	B = 45° C = 90°	A + C	45-290J.4F00.116 45-290H.4F00.111	2	0.090 kg
Metal sandgrey			A + C	45-290H.4F00.111		0.090
		C = 90°	A + C A		2 2	

Switching action: A = Rest, B = Momentary, C = Maintain



### Selector switch actuator 2 positions short lever, IP66, IP67, IP69K

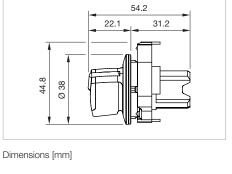


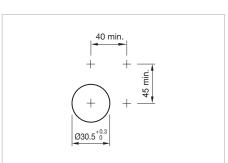
Product can differ from the current configuration.

It is advisable to choose a white illumination Mounting depth incl. front plate, see chapter

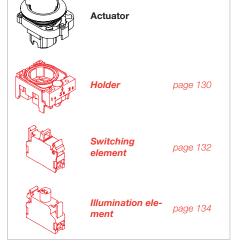
Front panel thickness 1 ... 6 mm Illumination elements are optional

# 22.1 31.2 44.8





Mounting cut-outs [mm]



Equipment consisting of (schematic overview)

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.





**Additional Information** 

«drawings»

Switching positions (A = Rest, B = Momentary, C = Maintained)

Lever	Front ring	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
	Selector switch actuator	· 2 positions, short lever,	Front dimension Ø 38	mm		
Plastic red	Metal sandgrey	A - B	B = 45°	45-2844.4C20.006	1	0.055 kg
•	selector switch actuator					
1	Selector switch actuator	2 nositions short lever	Front dimension @ 39			
Plastic green	Metal sandgrey	A - B	B = 45°	45-2844.4C50.006	1	0.055 kg
Plastic green		A - B	B = 45°	45-2844.4C50.006	1	0.055 kg
Plastic green  Plastic white	Metal sandgrey	A - B	B = 45°	45-2844.4C50.006	1	0.055 kg
	Metal sandgrey  Selector switch actuator	A - B  2 positions, short lever,  A - B	B = 45°  Front dimension Ø 38  B = 45°	45-2844.4C50.006 mm 45-2844.4C90.006	1	

Lever	Front ring	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
Plastic green	Selector switch actuator  Metal sandgrey	2 positions, short lever,	Front dimension Ø	38 mm 45-2828.4C50.001	2	0.055 kg
	Selector switch actuator	· · · · · · · · · · · · · · · · · · ·				
Plastic white	Metal sandgrey	A - C	C = 90°	45-2828.4C90.001	2	0.055 kg

Switching action: A = Rest, B = Momentary, C = Maintain

F~	F~~-
Wiring diagram 1	Wiring diagram 2

### Selector switch 2 positions long lever, IP66, IP67, IP69K



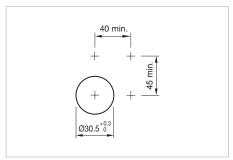
Product can differ from the current configuration.

# 22.1 31.2 44.8

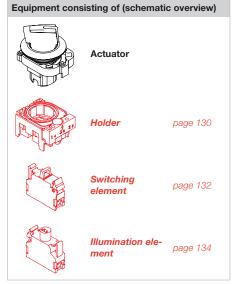
Dimensions [mm]

# **Additional Information**

- It is advisable to choose a white illumination
- Mounting depth incl. front plate, see chapter «drawings»
- Front panel thickness 1 ... 6 mm
- Illumination elements are optional



Mounting cut-outs [mm]



Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.





Switching positions (A = Rest, B = Momentary, C = Maintained)

Lever	Front ring	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
	Selector switch actuator	2 positions, long lever, I	Front dimension Ø 38	mm		
Plastic red	Metal sandgrey	A - B	B = 45°	45-2844.4D20.006	1	0.055 kg
1						
Plastic green	Metal sandgrey	A - B	Front dimension Ø 38	mm 45-2844.4D50.006	1	0.055 kg
Plastic green		A - B	B = 45°	45-2844.4D50.006	1	0.055 kg
Plastic green  Plastic white	Metal sandgrey	A - B	B = 45°	45-2844.4D50.006	1	0.055 kg
	Metal sandgrey  Selector switch actuator	A - B  2 positions, long lever, I  A - B	B = 45°  Front dimension Ø 38  B = 45°	45-2844.4D50.006  mm  45-2844.4D90.006	1	

Lever	Front ring Selector switch actuator	Switching action  2 positions, long lever, F	Switching angle	Part No.	Wiring dia- gram	Weight
Plastic green	Metal sandgrey	A - C	C = 90°	45-2828.4D50.001	2	0.055 kg
	Selector switch actuator	· · · · · · · · · · · · · · · · · · ·				
Plastic white	Metal sandgrey	A - C	C = 90°	45-2828.4D90.001	2	0.055 kg

Switching action: A = Rest, B = Momentary, C = Maintain

F~	F~~-
Wiring diagram 1	Wiring diagram 2

### Selector switch 3 positions short lever, IP66, IP67, IP69K



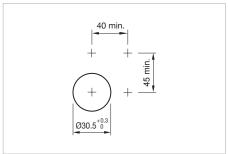
Product can differ from the current configuration.

# 54.2

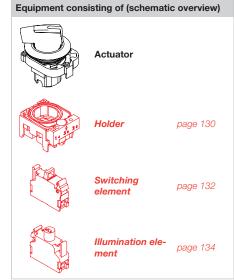
Dimensions [mm]

# Additional Information

- It is advisable to choose a white illumination
- Mounting depth incl. front plate, see chapter «drawings»
- Front panel thickness 1 ... 6 mm
- Illumination elements are optional



Mounting cut-outs [mm]



Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



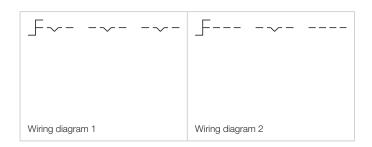


Switching positions (A = Rest, B = Momentary, C = Maintained)

Lever	Front ring	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
	Selector switch actuator	3 positions, short lever,	Front dimension Ø 38	s mm		
Plastic red	Metal sandgrey	C - A - C	C = 45°	45-2819.4C20.003	1	0.055 kg
•	Selector switch actuator					
	Selector switch actuator	3 positions, short lever.	Front dimension Ø 38	mm		
Plastic green	Metal sandgrey	C-A-C	C = 45°	45-2819.4C50.003	1	0.055 kg
	Metal sandgrey  Selector switch actuator	C-A-C 3 positions, short lever,	C = 45°  Front dimension Ø 38	45-2819.4C50.003	1	
Plastic green  Plastic white	Metal sandgrey	C - A - C	C = 45°	45-2819.4C50.003	1	0.055 kg
	Metal sandgrey  Selector switch actuator	C - A - C  3 positions, short lever,	C = 45°  Front dimension Ø 38  C = 45°	45-2819.4C50.003 5 mm 45-2819.4C90.003	1	

Lever	Front ring	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
	Selector switch actuato	r 3 positions, short lever,	Front dimension Ø 3	8 mm		
Plastic green	Metal sandgrey	B - A - B	B = 45°	45-280S.4C50.003	2	0.055 kg
	Selector switch actuato	r 3 positions, short lever,	Front dimension Ø 3	8 mm		

Switching action: A = Rest, B = Momentary, C = Maintain



### Selector switch 3 positions long lever, IP66, IP67, IP69K



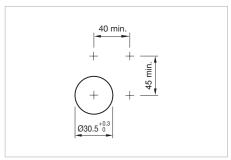
Product can differ from the current configuration.

# 22.1 31.2 44.8

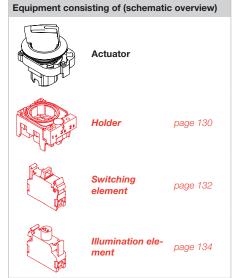
Dimensions [mm]

# **Additional Information**

- It is advisable to choose a white illumination
- Mounting depth incl. front plate, see chapter «drawings»
- Front panel thickness 1 ... 6 mm
- Illumination elements are optional



Mounting cut-outs [mm]



Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

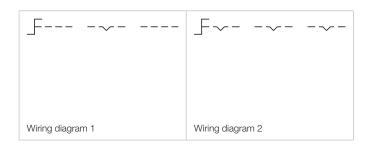


Switching positions (A = Rest, B = Momentary, C = Maintained)

Lever	Front ring	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
	Selector switch actuator	· 3 positions, long lever, l	Front dimension Ø 38	mm		
Plastic red	Metal sandgrey	C - A - C	C = 45°	45-2819.4D20.003	1	0.055 kg
10.11		0 '''				
Plastic green	Metal sandgrey	C - A - C	C = 45°	mm 45-2819.4D50.003	1	0.055 kg
Plastic green	Metal sandgrey  Selector switch actuator	C-A-C	C = 45°  Front dimension Ø 38	45-2819.4D50.003	1	
	Metal sandgrey	C - A - C	C = 45°	45-2819.4D50.003	1	0.055 kg
Plastic green  Plastic white	Metal sandgrey  Selector switch actuator	C - A - C  3 positions, long lever, I	C = 45°  Front dimension Ø 38  C = 45°	45-2819.4D50.003 mm 45-2819.4D90.003	1	

Lever	Front ring  Selector switch actuator	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
Plastic green	Metal sandgrey	B - A - B	B = 45°	45-280S.4D50.003	2	0.055 kg
	Selector switch actuator	_ ·				
Plastic white	Metal sandgrey	B - A - B	B = 45°	45-280S.4D90.003	2	0.055 kg

Switching action: A = Rest, B = Momentary, C = Maintain



# 45 Raised design

### Indicator full face illumination, IP66, IP67, IP69K



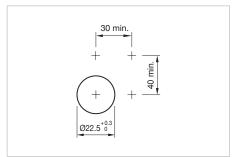
Product can differ from the current configuration.

# 36.2

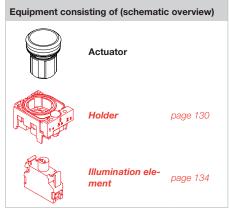
Dimensions [mm]

# Mounting depth incl. f

 Mounting depth incl. front plate, see chapter «drawings»



Mounting cut-outs [mm]



Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

LED colour	Housing material	Lens cap	Part No.	Weight
Inc	dicator actuator, Front dimension Ø 29	9.45 mm		
amber	Plastic	Plastic amber transparency	45-2T00.10F0.000	0.001 kg
	dicator actuator, Front dimension Ø 29			
red	Plastic	Plastic red transparent	45-2T00.10E0.000	0.001 kg
Inc	dicator actuator, Front dimension Ø 29	9.45 mm		
yellow	Plastic	Plastic yellow transparent	45-2T00.10G0.000	0.001 kg
Inc	dicator actuator, Front dimension Ø 29	9.45 mm		
green	Plastic	Plastic green transparent	45-2T00.10H0.000	0.001 kg
				1
In	dicator actuator, Front dimension Ø 29	9.45 mm		
Inc	dicator actuator, Front dimension Ø 29	9.45 mm  Plastic blue transparent	45-2T00.10J0.000	0.001

LED colour		Housing material	Lens cap	Part No.	Weight
-			<u> </u>		
	Indicator actuat	or, Front dimension Ø 29.45 m	nm		
white	maioator aotaat	Plastic	Plastic white transparent	45-2T00.10N0.000	0.001 kg
	Indicator actuat	or, Front dimension Ø 29.45 m	ım		
colourless	illuicator actuat	Plastic	Plastic colourless transparent	45-2T00.10K0.000	0.001 kg
			<u> </u>		
3	Indicator catuat	or Front dimension (\$ 20.45 m	200		
amber	indicator actual	or, Front dimension Ø 29.45 m	Plastic amber transparency	45-2T00.20F0.000	0.010 kg
4.1.201		- Nota	r ladic arribor danoparonoy	10 2100120101000	0.0.0.0
	Indicator actuat	or, Front dimension Ø 29.45 m		45.0700.0050.000	0.0401
red		Metal	Plastic red transparent	45-2T00.20E0.000	0.010 kç
1	Indicator actuat	or, Front dimension Ø 29.45 m	nm		
yellow	Indicator actuat	or, Front dimension Ø 29.45 m	Plastic yellow transparent	45-2T00.20G0.000	0.010 kį
yellow	Indicator actuat			45-2T00.20G0.000	0.010 kg
yellow	Indicator actuat			45-2T00.20G0.000	0.010 kç
yellow		Metal	Plastic yellow transparent	45-2T00.20G0.000	0.010 kg
yellow			Plastic yellow transparent	45-2T00.20G0.000 45-2T00.20H0.000	
		Metal cor, Front dimension Ø 29.45 m	Plastic yellow transparent		
		Metal cor, Front dimension Ø 29.45 m	Plastic yellow transparent		
	Indicator actuat	Metal cor, Front dimension Ø 29.45 m Metal	Plastic yellow transparent  Plastic green transparent		
	Indicator actuat	Metal cor, Front dimension Ø 29.45 m	Plastic yellow transparent  Plastic green transparent		0.010 kg
green	Indicator actuat	Metal  or, Front dimension Ø 29.45 m  Metal  or, Front dimension Ø 29.45 m	Plastic yellow transparent  Plastic green transparent  nm	45-2T00.20H0.000	0.010 kg
green	Indicator actuat	Metal  or, Front dimension Ø 29.45 m  Metal  or, Front dimension Ø 29.45 m	Plastic yellow transparent  Plastic green transparent  nm	45-2T00.20H0.000	0.010 kg
green	Indicator actuat	Metal  cor, Front dimension Ø 29.45 m  Metal  cor, Front dimension Ø 29.45 m  Metal	Plastic yellow transparent  Plastic green transparent  Plastic blue transparent	45-2T00.20H0.000	0.010 kg
green	Indicator actuat	Metal  cor, Front dimension Ø 29.45 m  Metal  cor, Front dimension Ø 29.45 m  Metal	Plastic yellow transparent  Plastic green transparent  Plastic blue transparent  Plastic blue transparent	45-2T00.20H0.000 45-2T00.20J0.000	0.010 kg
green	Indicator actuat	Metal  cor, Front dimension Ø 29.45 m  Metal  cor, Front dimension Ø 29.45 m  Metal	Plastic yellow transparent  Plastic green transparent  Plastic blue transparent	45-2T00.20H0.000	0.010 kg
green	Indicator actuat	Metal  cor, Front dimension Ø 29.45 m  Metal  cor, Front dimension Ø 29.45 m  Metal	Plastic yellow transparent  Plastic green transparent  Plastic blue transparent  Plastic blue transparent	45-2T00.20H0.000 45-2T00.20J0.000	0.010 kg
green	Indicator actuat	Metal  cor, Front dimension Ø 29.45 m  Metal  cor, Front dimension Ø 29.45 m  Metal	Plastic yellow transparent  Plastic green transparent  Plastic blue transparent  Plastic blue transparent	45-2T00.20H0.000 45-2T00.20J0.000	0.010 kg
green	Indicator actuat Indicator actuat	Metal  cor, Front dimension Ø 29.45 m  Metal  cor, Front dimension Ø 29.45 m  Metal	Plastic yellow transparent  Plastic green transparent  Plastic blue transparent  Plastic blue transparent  Plastic white transparent	45-2T00.20H0.000 45-2T00.20J0.000	0.010 kg

# 45 Raised design

### Indicator front illumination, IP66, IP67, IP69K



Product can differ from the current configuration.

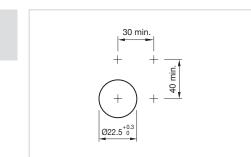
Mounting depth incl. front plate, see chapter

**Additional Information** 

«drawings»

# 35.3

Dimensions [mm]



Mounting cut-outs [mm]

# Actuator Holder page 130 Illumination element page 134

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

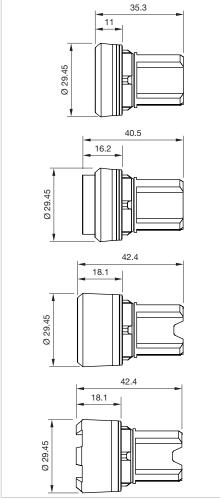
LED colour	Fuent vine	Lana	Haveing material	Part No.	Wainlah
LED colour	Front ring	Lens	Housing material	Part No.	Weight
	Indicator actuator, Front	dimension Ø 29.45 mm			
red	Plastic black	Plastic red transparent	Plastic	45-2T07.10E0.000	0.011 kg
	Indicator actuator, Front		Disakia	45 0707 4000 000	0.0441
yellow	Plastic black	Plastic yellow transparent	Plastic	45-2T07.10G0.000	0.011 kg
green	Indicator actuator, Front Plastic black	dimension Ø 29.45 mm  Plastic green transparent	Plastic	45-2T07.10H0.000	0.011 kg
	Indicator actuator, Front	dimension Ø 29.45 mm			
blue	Plastic black	Plastic blue transparent	Plastic	45-2T07.10J0.000	0.011 kg
	Indicator actuator, Front	dimension Ø 29.45 mm			
colourless	Plastic black	Plastic colourless transparent	Plastic	45-2T07.10K0.000	0.011 kg
					1

LED colour	Front ring	Lens	Housing material	Part No.	Weight
	-	·			
	Indicator actuator, Front of				
red	Metal sandgrey	Plastic red transparent	Plastic	45-2T07.30E0.000	0.020 kg
	Indicator actuator, Front o				
yellow	Metal sandgrey	Plastic yellow transparent	Plastic	45-2T07.30G0.000	0.020 kg
	Indicator actuator, Front of				
green	Metal sandgrey	Plastic green transparent	Plastic	45-2T07.30H0.000	0.020 kg
	Indicator actuator, Front of	limancian Ø 20 45 mm			
blue	Metal sandgrey	Plastic blue transparent	Plastic	45-2T07.30J0.000	0.020 kg
- Dide	Wetai sandgrey	Tiastic blue transparent	1 lastic	43-2107.3000.000	0.020 Kg
	Indicator actuator, Front of	limension Ø 29.45 mm			
	·				
colourless	Metal sandgrey	Plastic colourless transparent	Plastic	45-2T07.30K0.000	0.020 kg

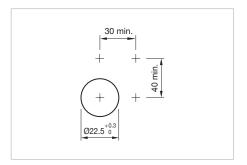
#### Pushbutton, IP66, IP67, IP69K



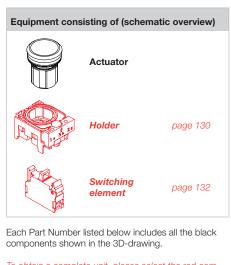
Product can differ from the current configuration.



Dimensions [mm]



Mounting cut-outs [mm]



To obtain a complete unit, please select the red components from the pages shown.

#### **Additional Information**

 Mounting depth incl. front plate, see chapter «drawings»

Product attribute	Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
~	, c. c	1	,		1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		1111311
Pu	shbutton actuator,	Momentary, Front	dimension Ø 29.45	mm			
Lens level with front ring	Plastic black	Plastic black	Plastic	В	45-2131.1110.000	1	0.013
Pu	shbutton actuator,	Momentary, Front	dimension Ø 29.45	mm			
_ens level with front ring	Plastic black	Plastic red	Plastic	В	45-2131.1120.000	1	0.013
Pu	shbutton actuator,	Momentary, Front	dimension Ø 29.45	mm			
_ens level with front ring	Plastic black	Plastic yellow	Plastic	В	45-2131.1140.000	1	0.0131
	shbutton actuator,  Plastic black	Momentary, Front Plastic green	dimension Ø 29.45	<b>mm</b>	45-2131.1150.000	1	0.013
Lens level with front ring	Plastic black	Plastic green		В	45-2131.1150.000	1	0.013
ens level with front ring	Plastic black	Plastic green	Plastic	В	45-2131.1150.000 45-2131.1160.000	1	
Pusens level with front ring	shbutton actuator,  Plastic black	Plastic green  Momentary, Front  Plastic blue	Plastic  dimension Ø 29.45	mm B	45-2131.1160.000		
Purens level with front ring	shbutton actuator,  Plastic black	Plastic green  Momentary, Front  Plastic blue	Plastic  dimension Ø 29.45  Plastic	<b>mm</b> B			0.013
Pu: Lens level with front ring  Pu: Lens level with front ring	shbutton actuator, Plastic black  shbutton actuator, Plastic black	Momentary, Front Plastic blue  Momentary, Front Plastic grey	dimension Ø 29.45  Plastic  dimension Ø 29.45	<b>mm</b> В	45-2131.1160.000	1	0.0131
Pusterns level with front ring  Pusterns level with front ring  Pusterns level with front ring  Pusterns level with front ring	shbutton actuator, Plastic black  shbutton actuator, Plastic black	Momentary, Front Plastic blue  Momentary, Front Plastic grey	dimension Ø 29.45 Plastic  dimension Ø 29.45 Plastic	<b>mm</b> В	45-2131.1160.000	1	0.013
Purens level with front ring	shbutton actuator, Plastic black  shbutton actuator, Plastic black  shbutton actuator, Plastic black	Momentary, Front Plastic blue  Momentary, Front Plastic grey  Momentary, Front Plastic white	dimension Ø 29.45 Plastic  dimension Ø 29.45 Plastic  dimension Ø 29.45 Plastic	<b>mm</b> В <b>mm</b> В	45-2131.1160.000 45-2131.1180.000	1	0.0131
Pu: Lens level with front ring  Pu: Lens level with front ring  Pu: Lens level with front ring  Pu: Lens level with front ring	shbutton actuator, Plastic black  shbutton actuator, Plastic black  shbutton actuator, Plastic black	Momentary, Front Plastic blue  Momentary, Front Plastic grey  Momentary, Front Plastic white	dimension Ø 29.45  Plastic  dimension Ø 29.45  Plastic  dimension Ø 29.45	<b>mm</b> В <b>mm</b> В	45-2131.1160.000 45-2131.1180.000	1	0.013 k
Pus Lens level with front ring  Pus Lens level with front ring  Pus Lens level with front ring  Pus Lens level with front ring	shbutton actuator, Plastic black  shbutton actuator, Plastic black  shbutton actuator, Plastic black  shbutton actuator, Plastic black	Momentary, Front Plastic blue  Momentary, Front Plastic grey  Momentary, Front Plastic white  Momentary, Front Plastic colourless	dimension Ø 29.45  Plastic  dimension Ø 29.45  Plastic  dimension Ø 29.45  Plastic  dimension Ø 29.45  Plastic	мт В мт В	45-2131.1160.000 45-2131.1180.000 45-2131.1190.000	1	0.013
Pus Lens level with front ring  Pus Lens level with front ring  Pus Lens level with front ring  Pus Lens level with front ring	shbutton actuator, Plastic black  shbutton actuator, Plastic black  shbutton actuator, Plastic black  shbutton actuator, Plastic black	Momentary, Front Plastic blue  Momentary, Front Plastic grey  Momentary, Front Plastic white  Momentary, Front Plastic colourless	dimension Ø 29.45   Plastic     Plastic	мт В мт В	45-2131.1160.000 45-2131.1180.000 45-2131.1190.000	1	0.013

	J						
						/iring dia- ram	Weight
Product attribute	Front ring	Lens	Housing material	Switching action	Part No.	≥ 5	Weight
Pus	shbutton actuator. I	Maintain. Front d	limension Ø 29.45 m	ım			
Lens level with front ring	Plastic black	Plastic red	Plastic		45-2134.1120.000	2	0.013 kg
•	shbutton actuator, I	Maintain, Front d	limension Ø 29.45 m				
Lens level with front ring	Plastic black	Plastic yellow	Plastic	С	45-2134.1140.000	2	0.013 kg
Pus	shbutton actuator, I	Maintain, Front d	limension Ø 29.45 m				
Lens level with front ring	Plastic black	Plastic green	Plastic	С	45-2134.1150.000	2	0.013 kg
Lens level with front ring	Plastic black shbutton actuator, I	Plastic blue  Maintain, Front d	Plastic  limension Ø 29.45 m	C	45-2134.1160.000	2	0.013 kg
Lens level with front ring	Plastic black	Plastic white	Plastic	С	45-2134.1190.000	2	0.013 kg
Pus	shbutton actuator, I	Momentary, Fron	nt dimension Ø 29.45				
Lens level with front ring	Metal sandgrey	Plastic black	Plastic	В	45-2131.3110.000	1	0.021 kg
Pus	shbutton actuator, I	Momentary, Fror	nt dimension Ø 29.45	5 mm			
Lens level with front ring	Metal sandgrey	Plastic red	Plastic	В	45-2131.3120.000	1	0.021 kg
Pus	shbutton actuator. I	Momentary. Fron	nt dimension Ø 29.45	5 mm			
Lens level with front ring	Metal sandgrey	Plastic yellow	Plastic	В	45-2131.3140.000	1	0.021 kg
		7	nt dimension Ø 29.45		3 2.501181880	<u> </u>	5.521 119
Lens level with front ring	Metal sandgrey	Plastic green	Plastic	В	45-2131.3150.000	1	0.021 kg
LOTIO IEVEL WITH HOUTE HING	Ivictal Sallugley	i iasiic green	i idolic		-0-2101.0100.000	'	0.021 Kg

						'iring dia- ram	Weight
Product attribute	Front ring	Lens	Housing material	Switching action	Part No.	≥ 5	Weigh
Pu	shbutton actuator, M	Momentary, Front	t dimension Ø 29.45				
Lens level with front ring	Metal sandgrey	Plastic blue	Plastic	В	45-2131.3160.000	1	0.021 k
Pu	shbutton actuator, N	Momentary, Front	t dimension Ø 29.45	mm			
Lens level with front ring	Metal sandgrey	Plastic grey	Plastic	В	45-2131.3180.000	1	0.021 k
	shbutton actuator, N						T
_ens level with front ring	Metal sandgrey	Plastic white	Plastic	В	45-2131.3190.000	1	0.021
_	alala						
	shbutton actuator, Metal sandgrey	Momentary, Front Plastic colourless	t dimension Ø 29.45	mm B	45-2131.31K0.000	1	0.021
Lens level with front ring	Metal sandgrey	Plastic colourless	Plastic	В	45-2131.31K0.000	1	0.0211
Lens level with front ring		Plastic colourless	Plastic	В	45-2131.31K0.000 45-2134.3110.000	1	
Pu Lens level with front ring	Metal sandgrey	Plastic colourless  Maintain, Front di  Plastic black	Plastic  mension Ø 29.45 m	<b>т</b>			
Pu Lens level with front ring Pu Pu Pu Pu	Metal sandgrey  shbutton actuator, Metal sandgrey	Plastic colourless  Maintain, Front di  Plastic black	Plastic  mension Ø 29.45 m	<b>т</b>			0.0211
Pu Lens level with front ring  Pu Lens level with front ring  Pu Lens level with front ring	shbutton actuator, Metal sandgrey  Metal sandgrey	Maintain, Front di Plastic black  Maintain, Front di Plastic black	mension Ø 29.45 m Plastic  mension Ø 29.45 m Plastic	т С	45-2134.3110.000	2	0.021 k
Pu Lens level with front ring  Pu Lens level with front ring  Pu Lens level with front ring  Pu	shbutton actuator, Metal sandgrey  Metal sandgrey  shbutton actuator, Metal sandgrey	Maintain, Front di Plastic black  Maintain, Front di Plastic black	mension Ø 29.45 m Plastic  mension Ø 29.45 m Plastic	т С	45-2134.3110.000	2	0.0211
Pu Lens level with front ring	shbutton actuator, Metal sandgrey  shbutton actuator, Metal sandgrey  Metal sandgrey  shbutton actuator, Metal sandgrey  Metal sandgrey	Maintain, Front di Plastic black  Maintain, Front di Plastic red  Maintain, Front di Plastic red	mension Ø 29.45 m  Plastic  mension Ø 29.45 m  Plastic  mension Ø 29.45 m  Plastic	т С	45-2134.3110.000 45-2134.3120.000	2	0.021 F
Pu Lens level with front ring  Pu Lens level with front ring	shbutton actuator, Metal sandgrey  Shbutton actuator, Metal sandgrey  Shbutton actuator, Metal sandgrey	Maintain, Front di Plastic black  Maintain, Front di Plastic red  Maintain, Front di Plastic red	mension Ø 29.45 m  Plastic  mension Ø 29.45 m  Plastic  mension Ø 29.45 m  Plastic	т С	45-2134.3110.000 45-2134.3120.000	2	0.021 k 0.021 k 0.021 k
Pu Lens level with front ring  Pu Lens level with front ring	shbutton actuator, Metal sandgrey  shbutton actuator, Metal sandgrey	Maintain, Front di Plastic black  Maintain, Front di Plastic red  Maintain, Front di Plastic yellow  Maintain, Front di Plastic yellow	mension Ø 29.45 m  Plastic  mension Ø 29.45 m  Plastic  mension Ø 29.45 m  Plastic  mension Ø 29.45 m  Plastic	m C  m C  m C	45-2134.3110.000 45-2134.3120.000 45-2134.3140.000	2	0.021 k
Pu Lens level with front ring  Pu Lens level with front ring	shbutton actuator, Metal sandgrey  shbutton actuator, Metal sandgrey  shbutton actuator, Metal sandgrey  shbutton actuator, Metal sandgrey	Maintain, Front di Plastic black  Maintain, Front di Plastic red  Maintain, Front di Plastic yellow  Maintain, Front di Plastic yellow	mension Ø 29.45 m  Plastic  mension Ø 29.45 m  Plastic  mension Ø 29.45 m  Plastic  mension Ø 29.45 m  Plastic	m C  m C  m C	45-2134.3110.000 45-2134.3120.000 45-2134.3140.000	2	0.021 F

	•						
						/iring dia- ram	Weight
Product attribute	Front ring	Lens	Housing material	Switching action	Part No.	<b>≥</b> ₪	Weight
Pus	hbutton actuator. I	Maintain. Front d	limension Ø 29.45 m	nm			
ens level with front ring	Metal sandgrey	Plastic white	Plastic	С	45-2134.3190.000	2	0.021 kg
			nt dimension Ø 29.4				
_ens level with front ring	Metal silver	Plastic black	Metal	В	45-2131.2110.000	1	0.048 kg
Pus	hbutton actuator, I	Momentary, Fror	nt dimension Ø 29.4	5 mm			
ens level with front ring	Metal silver	Plastic red	Metal	В	45-2131.2120.000	1	0.048 kg
Lens level with front ring	Metal silver	Plastic yellow	Metal Metal	В	45-2131.2140.000	1	0.048 kg
Lens level with front ring	Metal silver	Plastic green	nt dimension Ø 29.4	B mm	45-2131.2150.000	1	0.048 kg
Pus	hbutton actuator, I	Momentary, Fror	nt dimension Ø 29.4	5 mm			
ens level with front ring	Metal silver	Plastic blue	Metal	В	45-2131.2160.000	1	0.048 kg
Pus	hbutton actuator, I	Momentary, Fror	nt dimension Ø 29.4	5 mm			
ens level with front ring	Metal silver	Plastic grey	Metal	В	45-2131.2180.000	1	0.048 kg
Pus	hbutton actuator, I	Momentary, Fror	nt dimension Ø 29.4	5 mm			
ens level with front ring	Metal silver	Plastic white	Metal	В	45-2131.2190.000	1	0.048 kg
			nt dimension Ø 29.4			<u> </u>	1.3.3.6
	Metal silver	Plastic colourless	Metal	В	45-2131.21K0.000	1	0 048 1/2
Lens level with front ring	ivietai Siivel	riastic colouriess	INIERGI	D	70-2131.21KU.UUU	<u> </u>	0.048 kg

Product attribute	Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
Pue	shbutton actuator	Maintain Front d	limension Ø 29.45 m				
Lens level with front ring	Metal silver	Plastic black	Metal	C	45-2134.2110.000	2	0.048
					10 = 10 1 = 10 000		0.0.0
Lens level with front ring	Metal silver	Plastic red	limension Ø 29.45 m	C	45-2134.2120.000	2	0.048 k
			limension Ø 29.45 m				
Lens level with front ring	Metal silver	Plastic yellow	Metal	С	45-2134.2140.000	2	0.048 k
Pus	hbutton actuator	Maintain, Front d	imension Ø 29.45 m	n			
	Metal silver	Plastic green	Metal	С	45-2134.2150.000	2	0.048
Lens level with front ring	Metal silver	Plastic green		n	45-2134.2150.000	2	0.048
Lens level with front ring	Metal silver	Plastic green	Metal		45-2134.2150.000 45-2134.2160.000	2	
Pus Lens level with front ring	Metal silver  shbutton actuator,  Metal silver	Plastic green  Maintain, Front d  Plastic blue	Metal	<b>m</b>			
Pus Lens level with front ring  Pus Lens level with front ring	Metal silver  shbutton actuator,  Metal silver	Plastic green  Maintain, Front d  Plastic blue	Metal  limension Ø 29.45 m  Metal	<b>m</b>			0.0481
Pus Lens level with front ring  Pus Lens level with front ring  Pus Lens level with front ring  Pus	Metal silver  Shbutton actuator,  Metal silver  Shbutton actuator,  Metal silver	Maintain, Front d Plastic blue  Maintain, Front d Plastic blue	Metal  Imension Ø 29.45 m  Metal  Imension Ø 29.45 m	m C	45-2134.2160.000	2	0.048
Pus Lens level with front ring  Pus Lens level with front ring  Pus Lens level with front ring  Pus Lens raised above bezel	Metal silver  Shbutton actuator,  Metal silver  Shbutton actuator,  Metal silver  Shbutton actuator,  Plastic black	Maintain, Front d Plastic blue  Maintain, Front d Plastic white  Momentary, Front	Metal  Imension Ø 29.45 m  Metal  Imension Ø 29.45 m  Metal	m	45-2134.2160.000 45-2134.2190.000	2	0.048
Pus Lens level with front ring  Pus Lens level with front ring  Pus Lens raised above bezel  Pus	Metal silver  Shbutton actuator,  Metal silver  Shbutton actuator,  Metal silver  Shbutton actuator,  Plastic black	Maintain, Front d Plastic blue  Maintain, Front d Plastic white  Momentary, Front	Metal  Imension Ø 29.45 m  Metal  Imension Ø 29.45 m  Metal  At dimension Ø 29.45	m	45-2134.2160.000 45-2134.2190.000	2	0.048
Pus Lens level with front ring  Pus Lens level with front ring  Pus Lens raised above bezel  Pus Lens raised above bezel	Shbutton actuator,  Metal silver  Shbutton actuator,  Metal silver  Shbutton actuator,  Plastic black  Shbutton actuator,  Plastic black	Maintain, Front d Plastic blue  Maintain, Front d Plastic white  Momentary, Front Plastic black  Momentary, Front Plastic black	Metal  Metal	m	45-2134.2160.000 45-2134.2190.000 45-2131.1210.000	2	0.048 F
Pus Lens level with front ring  Pus Lens level with front ring  Pus Lens raised above bezel  Pus Lens raised above bezel	Shbutton actuator,  Metal silver  Shbutton actuator,  Metal silver  Shbutton actuator,  Plastic black  Shbutton actuator,  Plastic black	Maintain, Front d Plastic blue  Maintain, Front d Plastic white  Momentary, Front Plastic black  Momentary, Front Plastic black	Metal  Imension Ø 29.45 m  Metal  Imension Ø 29.45 m  Metal  At dimension Ø 29.45  Plastic	m	45-2134.2160.000 45-2134.2190.000 45-2131.1210.000	2	0.048 F

Dwa di cat attichi da	Frank visa	Lama	Haveing material	Cuitabina astion	Doub No.	Wiring dia- gram	Mainle
Product attribute	Front ring	Lens	Housing material	Switching action	Part No.	> 50	Weight
			t dimension Ø 29.45		T		
ens raised above bezel	Plastic black	Plastic green	Plastic	В	45-2131.1250.000	1	0.013 k
Puel	hbutton actuator N	Momentary Fron	nt dimension Ø 29.45	imm			
ens raised above bezel	Plastic black	Plastic blue	Plastic	В	45-2131.1260.000	1	0.013 k
ens raised above bezei	Plastic black	Plastic blue	Plastic	Б	45-2131.1200.000		0.013 K
Pusl ens raised above bezel	hbutton actuator, N	Momentary, Fron	nt dimension Ø 29.45	<b>5 mm</b>	45-2131.1290.000	1	0.013 k
Pusl	hbutton actuator, N	Momentary, Fron	nt dimension Ø 29.45	5 mm			
ens raised above bezel	Metal sandgrey	Plastic black	Plastic	В	45-2131.3210.000	1	0.021 k
En la faised above bezer							
Pusl			at dimension Ø 29.45	5 <b>mm</b>	45-2131.3220.000	1	0.021 k
Pusi ens raised above bezel	hbutton actuator, N  Metal sandgrey	Momentary, Fron	nt dimension Ø 29.45	В		1	0.021 k
Pusi Lens raised above bezel	hbutton actuator, N  Metal sandgrey	Momentary, Fron	nt dimension Ø 29.45	В		1	
Pusi Lens raised above bezel  Pusi Lens raised above bezel	hbutton actuator, N  Metal sandgrey  hbutton actuator, N  Metal sandgrey	Momentary, From Plastic red  Momentary, From Plastic yellow	Plastic  Plastic  At dimension Ø 29.45  Plastic	6 <b>mm</b>	45-2131.3220.000		
Pusi ens raised above bezel  Pusi ens raised above bezel  Pusi	hbutton actuator, N  Metal sandgrey  hbutton actuator, N  Metal sandgrey	Momentary, From Plastic red  Momentary, From Plastic yellow	Plastic  Plastic  at dimension Ø 29.45	6 <b>mm</b>	45-2131.3220.000		0.021 k
Pusi Lens raised above bezel  Pusi Lens raised above bezel  Pusi Lens raised above bezel  Pusi Lens raised above bezel	hbutton actuator, N  Metal sandgrey  hbutton actuator, N  Metal sandgrey  hbutton actuator, N  Metal sandgrey	Momentary, From Plastic red  Momentary, From Plastic yellow  Momentary, From Plastic green	Plastic  Plastic  Plastic  At dimension Ø 29.45  Plastic  Plastic	6 mm  6 mm  8	45-2131.3220.000 45-2131.3240.000	1	0.021 k
Pusi Lens raised above bezel  Pusi Lens raised above bezel  Pusi Lens raised above bezel  Pusi Lens raised above bezel	hbutton actuator, Metal sandgrey  hbutton actuator, Metal sandgrey  hbutton actuator, Metal sandgrey  hbutton actuator, Metal sandgrey  hbutton actuator, Metal sandgrey	Momentary, From Plastic red  Momentary, From Plastic yellow  Momentary, From Plastic green  Momentary, From Plastic blue	nt dimension Ø 29.45  Plastic  nt dimension Ø 29.45  Plastic  nt dimension Ø 29.45  Plastic  nt dimension Ø 29.45  Plastic	6 mm  B  6 mm  B	45-2131.3220.000 45-2131.3240.000	1	0.021 k
Pusi Lens raised above bezel  Pusi Lens raised above bezel  Pusi Lens raised above bezel  Pusi Lens raised above bezel	hbutton actuator, Metal sandgrey  hbutton actuator, Metal sandgrey  hbutton actuator, Metal sandgrey  hbutton actuator, Metal sandgrey  hbutton actuator, Metal sandgrey	Momentary, From Plastic red  Momentary, From Plastic yellow  Momentary, From Plastic green  Momentary, From Plastic blue	Plastic  Plastic  At dimension Ø 29.45  At dimension Ø 29.45  Plastic  At dimension Ø 29.45  At dimension Ø 29.45	6 mm  B  6 mm  B	45-2131.3220.000 45-2131.3240.000	1	0.021 k

Product attribute	Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
			nt dimension Ø 29.45		, rait noi		, word
Lens raised above bezel	Metal silver	Plastic black	Metal	В	45-2131.2210.000	1	0.021 k
			nt dimension Ø 29.45		45 0404 0000 000		0.0401
ens raised above bezel	Metal silver	Plastic red	Metal	В	45-2131.2220.000	1	0.048
Pusl Lens raised above bezel	hbutton actuator,  Metal silver	Momentary, From	nt dimension Ø 29.45	<b>5 mm</b> B	45-2131.2240.000	1	0.048 F
Pus	hbutton actuator,	Momentary, Fron	nt dimension Ø 29.45	i mm			
Lens raised above bezel	Metal silver	Plastic green	Metal	В	45-2131.2250.000	1	0.048 k
Pusl			Metal  Metal  Metal		45-2131.2250.000 45-2131.2260.000	1	
Pusl Lens raised above bezel	hbutton actuator,  Metal silver	Momentary, From	nt dimension Ø 29.45	<b>5 mm</b> B			
Pusl	hbutton actuator,  Metal silver	Momentary, From	nt dimension Ø 29.45	<b>5 mm</b> B			0.048 k
Pusi Lens raised above bezel  Pusi Lens raised above bezel	hbutton actuator,  Metal silver  hbutton actuator,  Metal silver	Momentary, From Plastic blue  Momentary, From Plastic white	nt dimension Ø 29.45  Metal  nt dimension Ø 29.45	5 mm   B 5 mm   B	45-2131.2260.000	1	0.048 k
Pusl ens raised above bezel  Pusl ens raised above bezel  Pusl	hbutton actuator,  Metal silver  hbutton actuator,  Metal silver	Momentary, From Plastic blue  Momentary, From Plastic white	nt dimension Ø 29.45  Metal  nt dimension Ø 29.45  Metal	5 mm   B 5 mm   B	45-2131.2260.000	1	0.048 F
Pusi Lens raised above bezel  Pusi Lens raised above bezel  Pusi Lens raised above bezel	hbutton actuator,  Metal silver  hbutton actuator,  Metal silver  hbutton actuator,  Metal silver	Momentary, From Plastic blue  Momentary, From Plastic white  Maintain, Front de Plastic red	nt dimension Ø 29.45  Metal  At dimension Ø 29.45  Metal	5 mm  6 mm  8 mm  C	45-2131.2260.000 45-2131.2290.000	1	0.048
Pusi Lens raised above bezel  Pusi Lens raised above bezel  Pusi Lens raised above bezel  Pusi Lens raised above bezel	hbutton actuator,  Metal silver  hbutton actuator,  Metal silver  hbutton actuator,  Metal silver	Momentary, From Plastic blue  Momentary, From Plastic white  Maintain, Front de Plastic red	nt dimension Ø 29.45  Metal  nt dimension Ø 29.45  Metal  limension Ø 29.45 m  Metal	5 mm  6 mm  8 mm  C	45-2131.2260.000 45-2131.2290.000	1	0.048 k
Pusi Lens raised above bezel  Pusi Lens raised above bezel  Pusi Lens raised above bezel  Pusi Lens raised above bezel	hbutton actuator,  Metal silver  hbutton actuator,  Metal silver  hbutton actuator,  Metal silver  hbutton actuator,  Plastic black	Momentary, From Plastic blue  Momentary, From Plastic white  Maintain, Front de Plastic red  Momentary, From Plastic black	nt dimension Ø 29.45  Metal  Metal  Metal  Metal  Metal  Metal	6 mm  6 mm  C  6 mm  B	45-2131.2260.000 45-2131.2290.000	1 1 2	0.048 k  0.048 k  0.048 k

	ront ring on actuator, Mo	Lens	Housing material	Switching action		ring dia- am	Weight
		Lens	Housing material	Switching action		= 2	
	on actuator, Mo			3 404.011	Part No.	≥ 5	Weight
Pushbutte	on actuator, me	mentary Front d	imension Ø 29 45 n	nm			
	Plastic black	Plastic yellow	Plastic	В	45-2131.1340.000	1	0.013 kg
	isotio sidori	Tieste yellow	TROGO		10 2101110 101000	·	0.010119
		-	imension Ø 29.45 n				I
ens lower than front ring	Plastic black	Plastic green	Plastic	В	45-2131.1350.000	1	0.013 kg
Pushbutte	on actuator, Mo	mentary, Front d	imension Ø 29.45 n	nm			
Lens lower than front ring	Plastic black	Plastic blue	Plastic	В	45-2131.1360.000	1	0.013 kg
	on actuator, Mo	Plastic white	Plastic imension Ø 29.45 n	nm	45-2131.1390.000	1	0.013 kg
Lens lower than front ring N	Metal sandgrey	Plastic black	Plastic	В	45-2131.3310.000	1	0.021 kg
Pushbutto	on actuator, Mo	mentary, Front d	imension Ø 29.45 n	nm			
Lens lower than front ring	Metal sandgrey	Plastic red	Plastic	В	45-2131.3320.000	1	0.021 kg
Pushbutto	on actuator, Mo	mentary, Front d	imension Ø 29.45 n	nm			
ens lower than front ring N	Metal sandgrey	Plastic yellow	Plastic	В	45-2131.3340.000	1	0.021 kg
Pushbutto	on actuator, Mo	mentary, Front d	imension Ø 29.45 n	nm			
	Metal sandgrey	Plastic green	Plastic	В	45-2131.3350.000	1	0.021 kg
		-	imension Ø 29.45 n				
	Metal sandgrey	Plastic blue	Plastic	В	45-2131.3360.000	1	0.021 kg
Lens lower trainifolithing IV	netai sailugiey	า เลอแบ มเนษ	1 145110	ט	<del>7</del> J-∠1J1.JJU.UUU	1	U.U∠T Kg

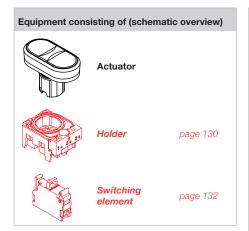
Product attribute	Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
Pushl	button actuator, N	Momentary, Fron	t dimension Ø 29.45	mm			
Lens lower than front ring	Metal sandgrey	Plastic white	Plastic	В	45-2131.3390.000	1	0.021
Pushl	button actuator, N	Momentary, Fron	nt dimension Ø 29.45	mm			
Lens lower than front ring	Metal silver	Plastic black	Metal	В	45-2131.2310.000	1	0.048 k
Pushl	button actuator, N	Momentary, Fron	it dimension Ø 29.45	mm			
Lens lower than front ring	Metal silver	Plastic red	Metal	В	45-2131.2320.000	1	0.048 k
Pushi	button actuator N	Momentary Fron	rt dimension Ø 29.45	mm			
i usiii	button actuator, r	violiteitaly, i foli	it difficition & 23.43				
	Metal silver	Plastic yellow	Metal	В	45-2131.2340.000	1	0.048 k
Lens lower than front ring  Pushl	Metal silver	Plastic yellow  Momentary, Fron	Metal	mm			
Lens lower than front ring  Pushl	Metal silver	Plastic yellow	Metal	В	45-2131.2340.000 45-2131.2350.000	1	
Pushl Lens lower than front ring	Metal silver  button actuator, N  Metal silver	Plastic yellow  Momentary, Fron  Plastic green	Metal	<b>mm</b> B			
Pushl	Metal silver  button actuator, N  Metal silver	Plastic yellow  Momentary, Fron  Plastic green	Metal  It dimension Ø 29.45  Metal	<b>mm</b> B			0.0481
Pushl Lens lower than front ring  Pushl Lens lower than front ring	Metal silver  button actuator, N  Metal silver  button actuator, N  Metal silver	Momentary, Fron Plastic green  Momentary, Fron Plastic blue	Metal  At dimension Ø 29.45  Metal  At dimension Ø 29.45  Metal	<b>тт</b> В	45-2131.2350.000	1	0.048 k
Pushl Lens lower than front ring  Pushl Lens lower than front ring  Pushl Lens lower than front ring  Pushl	Metal silver  button actuator, N  Metal silver  button actuator, N  Metal silver	Momentary, Fron Plastic green  Momentary, Fron Plastic blue	Metal  At dimension Ø 29.45  At dimension Ø 29.45  Metal	<b>тт</b> В	45-2131.2350.000 45-2131.2360.000	1	0.048 F
Pushl Lens lower than front ring  Pushl Lens lower than front ring  Pushl Lens lower than front ring  Pushl	Metal silver  button actuator, N  Metal silver  button actuator, N  Metal silver	Momentary, From Plastic green  Momentary, From Plastic blue	Metal  At dimension Ø 29.45  Metal  At dimension Ø 29.45  Metal	<b>тт</b> В <b>тт</b> В	45-2131.2350.000	1	0.048 F
Pushl Lens lower than front ring	Metal silver  button actuator, N  Metal silver  button actuator, N  Metal silver  button actuator, N  Metal silver	Momentary, From Plastic green  Momentary, From Plastic blue  Momentary, From Plastic blue	Metal  At dimension Ø 29.45  At dimension Ø 29.45  Metal	<b>тт</b> В <b>тт</b> В	45-2131.2350.000 45-2131.2360.000	1	0.048
Pushl Lens lower than front ring  Pushl Lens lower than front ring, with	Metal silver  button actuator, N  Metal silver  button actuator, N  Metal silver  button actuator, N  Metal silver	Momentary, From Plastic green  Momentary, From Plastic blue  Momentary, From Plastic blue	Metal  At dimension Ø 29.45  At dimension Ø 29.45  Metal  At dimension Ø 29.45  Metal	<b>тт</b> В <b>тт</b> В	45-2131.2350.000 45-2131.2360.000	1	0.048 F
Pushl Lens lower than front ring  Pushl Lens lover than front ring, with castellation	button actuator, Metal silver  button actuator, Metal silver  button actuator, Metal silver  button actuator, Metal silver  button actuator, Metal silver	Momentary, From Plastic green  Momentary, From Plastic blue  Momentary, From Plastic white  Momentary, From Plastic white	Metal  Metal  Metal  Metal  At dimension Ø 29.45  Metal  Metal  Metal  At dimension Ø 29.45  Metal  Metal	мм В  мм В  мм В  мм В  мм В  мм В  мм В	45-2131.2350.000 45-2131.2360.000 45-2131.2390.000	1	0.048 F 0.048 F 0.048 F
Pushl Lens lower than front ring  Pushl Lens lover than front ring, with castellation	button actuator, Metal silver  button actuator, Metal silver  button actuator, Metal silver  button actuator, Metal silver  button actuator, Metal silver	Momentary, From Plastic green  Momentary, From Plastic blue  Momentary, From Plastic white  Momentary, From Plastic white	Metal  At dimension Ø 29.45  At dimension Ø 29.45  Metal  At dimension Ø 29.45  Metal	мм В  мм В  мм В  мм В  мм В  мм В  мм В	45-2131.2350.000 45-2131.2360.000 45-2131.2390.000	1	0.048

Product attribute	Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
Pushb		Momentary, Fron	nt dimension Ø 29.45				
Lens lover than front ring, with castellation	Plastic black	Plastic yellow	Plastic	В	45-2131.1440.000	1	0.013 kg
Lens lover than front ring, with castellation	Plastic black	Plastic green	Plastic	В	45-2131.1450.000	1	0.013 kg
	Plastic black	Plastic green	Plastic	В	45-2131.1450.000	1	0.013 kg
Pushb	utton actuator, N	∕lomentary, Fron	it dimension Ø 29.45	i mm			
Lens lover than front ring, with castellation	Plastic black	Plastic blue	Plastic	В	45-2131.1460.000	1	0.013 kg
Pushb	utton actuator, N	√lomentary, Fron	nt dimension Ø 29.45	i mm	ı		ı
Lens lover than front ring, with castellation	Plastic black	Plastic white	Plastic	В	45-2131.1490.000	1	0.013 kg

Switching action: B = Momentary, C = Maintain

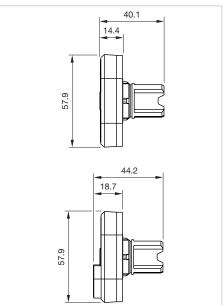
E	E~-
Wiring diagram 1	Wiring diagram 2

#### Double pushbutton, IP66, IP67, IP69K



Each Part Number listed below includes all the black components shown in the 3D-drawing.

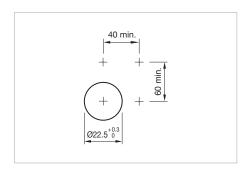
To obtain a complete unit, please select the red components from the pages shown.





Product can differ from the current configuration.

Dimensions [mm]



Mounting cut-outs [mm]

#### Additional Information

 Mounting depth incl. front plate, see chapter «drawings»

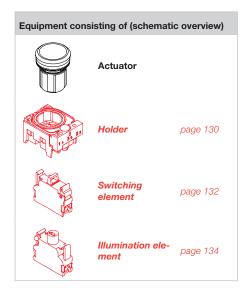
Product attribute	Front ring	Lens	Switching action	Part No.	Wiring dia- gram	Weight
Double pushb	utton actuator, mom	entary, Front dimens	sion 57.7 x 29.8 mm			
2 lenses, level with front ring	Plastic black	Plastic green-red	В	45-2J31.16T0.000	1	0.026 kg
•	utton actuator, mome			45-2.I31 16V0 000	1	0 026 kg
•	utton actuator, mome	entary, Front dimens   Plastic white-black	sion 57.7 x 29.8 mm	45-2J31.16V0.000	1	0.026 kç
2 lenses, level with front ring	•	Plastic white-black	В	45-2J31.16V0.000	1	0.026 kç

Product attribute	Front ring	Lone	Switching action	Part No.	Wiring dia- yram	Weight
<b>P</b>	Front ring	Lens	Switching action		<b>  &gt; 0</b>	weight
Plenses, level with/raised above front ring		Plastic white-black	В	45-2J31.15V0.000	1	0.026 kg
Double push	button actuator, m	omentary, Front dime	ension 57.7 x 29.8 mi	n		
2 lenses, level with front ring	Metal sandgrey	Plastic green-red	В	45-2J31.36T0.000	1	0.043 kg
		omentary, Front dime				
! lenses, level with front ring	Metal sandgrey	Plastic white-black	В	45-2J31.36V0.000	1	0.043 kg
2 lenses, level with/raised above front ring	Metal sandgrey	Plastic green-red	В	45-2J31.35T0.000	1	0.043 kg
2 lenses, level with front ring	Metal silver	Plastic green-red	В	45-2J31.26T0.000	1	0.068 kg
Double push	button actuator, m	omentary, Front dime	ension 57.7 x 29.8 m	m		
2 lenses, level with front ring	Metal silver	Plastic white-black	В	45-2J31.26V0.000	1	0.068 kg
Double push	button actuator, m	omentary, Front dime	ension 57.7 x 29.8 mi	m		
Plenses, level with/raised above front ring	Metal silver	Plastic green-red	В	45-2J31.25T0.000	1	0.068 kg
Double push	button actuator m	omentary, Front dime	ension 57.7 x 29.8 m	n		
-		Plastic white-black	В	45-2J31.25V0.000	1	0.068 kg
2 lenses, level with/raised above front ring	IVIETAL SILVER					UUDAK

Switching action: B = Momentary

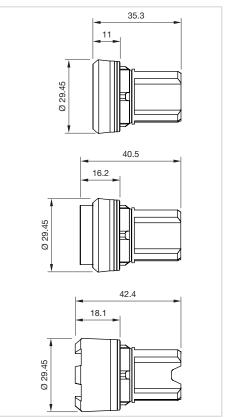
E--Wiring diagram 1

#### Illuminated pushbutton, IP66, IP67, IP69K



Each Part Number listed below includes all the black components shown in the 3D-drawing.

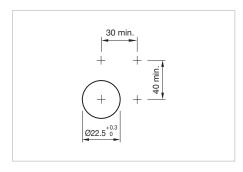
To obtain a complete unit, please select the red components from the pages shown.





Product can differ from the current configuration.

Dimensions [mm]



Mounting cut-outs [mm]

#### Additional Information

 Mounting depth incl. front plate, see chapter «drawings»

Product attribute	Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
		dan ashustan Mana	outous Frank discour	oion <i>(</i> 3 00 45 mm			
	luminated pushbut Plastic black	Plastic amber transpa- rency	Plastic	B 29.45 mm	45-2231.11F0.000	1	0.011 k
Lens level with front ring	Plastic black	Plastic amber transparency	-	В	45-2231.11F0.000	1	0.011 k

						Wiring dia- gram	
roduct attribute	Front ring	Lens	Housing material	Switching action	Part No.	≥ 5	Weight
	lluminated nushl	button actuator, Mome	ntary Front dime	ension Ø 29 45 mn	n		
ens level with front ring	Plastic black	Plastic yellow trans-	Plastic	B	45-2231.11G0.000	1	0.011 k
		parent					
		button actuator, Mome	,				
ens level with front ring	Plastic black	Plastic green transparent	Plastic	В	45-2231.11H0.000	1	0.011 k
	lluminated pushl	button actuator, Mome	entary, Front dime		n		
ens level with front ring	Plastic black	Plastic blue transparent	Plastic	В	45-2231.11J0.000	1	0.011 k
<b>F</b>	lluminated pushl	button actuator, Mome	entary. Front dime	ension Ø 29.45 mn	n		
				В	45-2231.11N0.000	1	0.011 k
ens level with front ring	Plastic black	Plastic white transparent	Plastic	B	45-2231.11110.000	<u>'</u>	0.0111
		button actuator, Mome  Plastic colourless transparent				1	
ens level with front ring	Iluminated pushl Plastic black	button actuator, Mome  Plastic colourless transparent	entary, Front dime	ension <b>Ø 29.45 m</b> n	n		
ens level with front ring	Iluminated pushl Plastic black	button actuator, Mome	entary, Front dime	ension <b>Ø 29.45 m</b> n	n		0.011 k
ens level with front ring ens level with front ring	Iluminated pushl Plastic black  Iluminated pushl Plastic black	button actuator, Mome Plastic colourless transparent	entary, Front dime	ension Ø 29.45 mn  B  ion Ø 29.45 mm	n 45-2231.11K0.000	1	0.011 k
ens level with front ring ens level with front ring	Iluminated pushl Plastic black  Iluminated pushl Plastic black	button actuator, Mome Plastic colourless transparent  button actuator, Mainta Plastic red transparent  button actuator, Mainta Plastic yellow trans-	entary, Front dime	ension Ø 29.45 mn  B  ion Ø 29.45 mm	n 45-2231.11K0.000	1	0.011
ens level with front ring ens level with front ring ens level with front ring	Illuminated pushl Plastic black  Illuminated pushl Plastic black  Illuminated pushl Plastic black	button actuator, Mome Plastic colourless transparent  button actuator, Mainta Plastic red transparent  button actuator, Mainta Plastic yellow transparent  button actuator, Mainta	entary, Front dimension, Front dimension	ension Ø 29.45 mm  ion Ø 29.45 mm  C  ion Ø 29.45 mm	45-2231.11K0.000 45-2234.11E0.000 45-2234.11G0.000	2	0.011 k
ens level with front ring  ens level with front ring  ens level with front ring	Iluminated pushl Plastic black  Iluminated pushl Plastic black  Iluminated pushl Plastic black	button actuator, Mome Plastic colourless transparent  button actuator, Mainta Plastic red transparent  button actuator, Mainta Plastic yellow transparent	entary, Front dimension, Front dimension	ension Ø 29.45 mm  ion Ø 29.45 mm  C	n 45-2231.11K0.000 45-2234.11E0.000	2	0.011 k
ens level with front ring	Illuminated pushl Plastic black  Illuminated pushl Plastic black  Illuminated pushl Plastic black	button actuator, Mome Plastic colourless transparent  button actuator, Mainta Plastic red transparent  button actuator, Mainta Plastic yellow transparent  button actuator, Mainta	entary, Front dimens Plastic  ain, Front dimens Plastic  ain, Front dimens Plastic	ion Ø 29.45 mm  C  ion Ø 29.45 mm  C	45-2231.11K0.000 45-2234.11E0.000 45-2234.11G0.000	2	0.011 k  0.011 k  0.011 k

						Wiring dia- gram	
Product attribute	Front ring	Lens	Housing material	Switching action	Part No.	≥ 5	Weigh
				~			
		tton actuator, Maint			45 0004 44N0 000	0	0.011
ens level with front ring	Plastic black	Plastic white transparent	Plastic	C	45-2234.11N0.000	2	0.011
			ata Farat diamant	C 00 45			
		tton actuator, Maint		1	45 0004 441/0 000		0 011
_ens level with front ring	Plastic black	Plastic colourless trans- parent	Plastic	C	45-2234.11K0.000	2	0.011
	lluminated pushbu	itton actuator, Mome	entary, Front dimer	sion Ø 29.45 mm	1		
ens level with front ring	Metal sandgrey	Plastic amber transpa- rency	Plastic	В	45-2231.31F0.000	1	0.020
	lluminated pushbu	itton actuator, Mome	ontony Front dimor	sion Ø 20 45 mm			
				B 29.45 IIIII		1	0.000
ens level with front ring	Metal sandgrey	Plastic red transparent	Plastic	В	45-2231.31E0.000	1	0.020
	Iluminated pushbu	Plastic yellow transparent	entary, Front dimer	sion Ø 29.45 mm	45-2231.31G0.000	1	0.020
Lens level with front ring	Metal sandgrey	Plastic yellow trans-	Plastic	В	45-2231.31G0.000	1	
Lens level with front ring	Metal sandgrey  Illuminated pushbu  Metal sandgrey  Illuminated pushbu	Plastic yellow transparent  atton actuator, Mome	entary, Front dimer	sion Ø 29.45 mm	45-2231.31G0.000	1	0.020
ens level with front ring	Metal sandgrey  Illuminated pushbu  Metal sandgrey	Plastic yellow transparent  atton actuator, Momentustic green transparent	Plastic  entary, Front dimer	sion <b>Ø 29.45 m</b> m	45-2231.31G0.000		0.020
Lens level with front ring  Lens level with front ring  Lens level with front ring	Metal sandgrey  Illuminated pushbu  Metal sandgrey  Illuminated pushbu  Metal sandgrey	Plastic yellow transparent  atton actuator, Mome	entary, Front dimer Plastic  entary, Front dimer	B 29.45 mm  B sion Ø 29.45 mm	45-2231.31G0.000  45-2231.31H0.000  45-2231.31J0.000	1	0.020
Lens level with front ring  Lens level with front ring  Lens level with front ring	Metal sandgrey  Illuminated pushbu  Metal sandgrey  Illuminated pushbu  Metal sandgrey	Plastic yellow transparent  Atton actuator, Momentus Plastic green transparent  Atton actuator, Momentus Plastic blue transparent	entary, Front dimer Plastic  entary, Front dimer Plastic  entary, Front dimer	B 29.45 mm  B sion Ø 29.45 mm	45-2231.31G0.000  45-2231.31H0.000  45-2231.31J0.000	1	0.020
Lens level with front ring  Lens level with front ring  Lens level with front ring  Lens level with front ring	Illuminated pushbu Metal sandgrey  Illuminated pushbu Metal sandgrey  Illuminated pushbu Metal sandgrey	Plastic yellow transparent  Atton actuator, Momentum Plastic green transparent  Atton actuator, Momentum Plastic blue transparent  Atton actuator, Momentum Plastic white transparent	entary, Front dimer Plastic  entary, Front dimer Plastic  entary, Front dimer	B Sion Ø 29.45 mm B Sion Ø 29.45 mm B B Sion Ø 29.45 mm	45-2231.31G0.000  45-2231.31H0.000  45-2231.31J0.000	1	0.020
Lens level with front ring  Lens level with front ring  Lens level with front ring  Lens level with front ring	Illuminated pushbu Metal sandgrey  Illuminated pushbu Metal sandgrey  Illuminated pushbu Metal sandgrey	Plastic yellow transparent  atton actuator, Momentum Plastic green transparent  atton actuator, Momentum Plastic blue transparent	entary, Front dimer Plastic  entary, Front dimer Plastic  entary, Front dimer	B Sion Ø 29.45 mm B Sion Ø 29.45 mm B B Sion Ø 29.45 mm	45-2231.31G0.000  45-2231.31H0.000  45-2231.31J0.000	1	0.020

Product attribute	Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
	-		· ·		Tartio.		Weight
		ton actuator, Mainta			45 0004 0450 000		0.0001
ens level with front ring	Metal sandgrey	Plastic red transparent	Plastic	C	45-2234.31E0.000	2	0.020 k
		<b>.</b>		Ø 00 45			
	-	ton actuator, Mainta					
ens level with front ring	Metal sandgrey	Plastic yellow trans- parent	Plastic	C	45-2234.31G0.000	2	0.020 k
Lens level with front ring	Iluminated pushbut  Metal sandgrey	ton actuator, Mainta		n <b>Ø 29.45 mm</b>	45-2234.31H0.000	2	0.020 k
Tello level with Hour Hild	ivietai sailugiey	i idolic green transpatent	i iastic		7J-22J4.3 I TU.UUU		0.020 K
T I	lluminated pushbut	ton actuator, Mainta	ain, Front dimensio	n Ø 29.45 mm			
ens level with front ring	Metal sandgrey	Plastic blue transparent	Plastic	С	45-2234.31J0.000	2	0.020 kg
			1				
	Iluminated pushbut  Metal sandgrey	ton actuator, Mainta		n <b>Ø 29.45 mm</b> C	45-2234.31N0.000	2	0.020 kį
Lens level with front ring	Metal sandgrey		Plastic	С	45-2234.31N0.000 45-2234.31K0.000	2	
Lens level with front ring	Metal sandgrey  Iluminated pushbut  Metal sandgrey	Plastic white transparent  ton actuator, Mainta  Plastic colourless transparent	Plastic  ain, Front dimensio  Plastic	n <b>Ø 29.45 mm</b>	45-2234.31K0.000		
ens level with front ring	Metal sandgrey  Iluminated pushbut  Metal sandgrey	Plastic white transparent  ton actuator, Mainta  Plastic colourless trans-	Plastic  ain, Front dimensio  Plastic	n <b>Ø 29.45 mm</b>	45-2234.31K0.000		
Lens level with front ring	Metal sandgrey  Iluminated pushbut  Metal sandgrey	Plastic white transparent  ton actuator, Mainta  Plastic colourless transparent	Plastic  ain, Front dimensio  Plastic	n <b>Ø 29.45 mm</b>	45-2234.31K0.000		0.020 kg
Lens level with front ring  Lens level with front ring  Lens level with front ring	Metal sandgrey  Illuminated pushbut  Metal sandgrey  Illuminated pushbut  Metal silver	Plastic white transparent  ton actuator, Mainta  Plastic colourless transparent  ton actuator, Mome	Plastic  ain, Front dimensio  Plastic  Phastic  Phastic  Metal	n Ø 29.45 mm C sion Ø 29.45 mm	45-2234.31K0.000	2	0.020 kį
Lens level with front ring  Lens level with front ring  Lens level with front ring	Metal sandgrey  Illuminated pushbut  Metal sandgrey  Illuminated pushbut  Metal silver	ton actuator, Maintal Plastic colourless transparent  ton actuator, Momental Plastic amber transparency	Plastic  ain, Front dimensio  Plastic  Phastic  Phastic  Metal	n Ø 29.45 mm C sion Ø 29.45 mm	45-2234.31K0.000	2	0.020 kç 0.020 kç 0.032 kç
Lens level with front ring  Lens level with front ring  Lens level with front ring	Metal sandgrey    Iluminated pushbut     Metal sandgrey     Iluminated pushbut     Metal silver     Iluminated pushbut     Metal silver	ton actuator, Maintal Plastic colourless transparent  ton actuator, Momentum actuator, Mo	Plastic  ain, Front dimensio  Plastic  Phastic  Phastic  Phastic  Phastic	n Ø 29.45 mm  C sion Ø 29.45 mm	45-2234.31K0.000	2	0.020 kg
Lens level with front ring  Lens level with front ring  Lens level with front ring  Lens level with front ring	Metal sandgrey  Illuminated pushbut  Metal sandgrey  Illuminated pushbut  Metal silver  Illuminated pushbut  Metal silver	ton actuator, Maintal Plastic colourless transparent  ton actuator, Mome Plastic amber transparency  ton actuator, Mome Plastic amber transparency	Plastic  pin, Front dimension  Plastic  Plastic  Phastic  Phastic  Phastic  Phastic  Phastic	n Ø 29.45 mm C sion Ø 29.45 mm B	45-2234.31K0.000 45-2231.21F0.000 45-2231.21E0.000	2	0.020 kg
Lens level with front ring  Lens level with front ring  Lens level with front ring  Lens level with front ring	Metal sandgrey  Illuminated pushbut  Metal sandgrey  Illuminated pushbut  Metal silver  Illuminated pushbut  Metal silver	ton actuator, Maintal Plastic colourless transparent  ton actuator, Momentum actuator, Mo	Plastic  pin, Front dimension  Plastic  Plastic  Phastic  Phastic  Phastic  Phastic  Phastic	n Ø 29.45 mm C sion Ø 29.45 mm B	45-2234.31K0.000 45-2231.21F0.000 45-2231.21E0.000	2	0.020 kg

Product attribute	Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- yram	Weight
		button actuator, Mome				<b>  &gt; 0</b> /	weigin
Lens level with front ring	Metal silver	Plastic green transparent		В	45-2231.21H0.000	1	0.032 k
	lluminated push	button actuator, Mome	antani Frant dima	ncion <i>(</i> i 20 45 mm			
ens level with front ring	Metal silver	Plastic blue transparent	Metal	В	45-2231.21J0.000	1	0.032
	lluminated push	button actuator, Mome	entary, Front dime	nsion Ø 29.45 mn	1		
_ens level with front ring	Metal silver	Plastic white transparent	-	В	45-2231.21N0.000	1	0.032 k
	lluminated push	button actuator, Mome	entary, Front dime	nsion Ø 29.45 mn	1		
ens level with front ring	Metal silver	Plastic colourless trans-	Metal	В	45-2231.21K0.000	1	0.032 k
Let is level with front fing	Ivietal Silver	parent				<u> </u>	
	lluminated push	parent button actuator, Maint	ain, Front dimens				
		parent	ain, Front dimens	ion <b>Ø 29.45 mm</b>	45-2234.21E0.000	2	0.032
Lens level with front ring	Iluminated push Metal silver	parent button actuator, Maint	Metal	С	45-2234.21E0.000		0.032 F
Lens level with front ring	Iluminated push Metal silver	button actuator, Maint  Plastic red transparent  button actuator, Maint  Plastic yellow trans-	Metal	С	45-2234.21E0.000 45-2234.21G0.000		0.032 k
Lens level with front ring  Lens level with front ring	Iluminated push Metal silver  Iluminated push	button actuator, Maint Plastic red transparent button actuator, Maint	Metal  ain, Front dimens  Metal	ion Ø 29.45 mm		2	
Lens level with front ring  Lens level with front ring	Iluminated push Metal silver  Iluminated push	button actuator, Maint Plastic red transparent  button actuator, Maint  Plastic yellow transparent	ain, Front dimens  Metal	ion Ø 29.45 mm		2	
Lens level with front ring  Lens level with front ring  Lens level with front ring	Iluminated push Metal silver  Iluminated push Metal silver	button actuator, Mainta Plastic red transparent  button actuator, Mainta Plastic yellow transparent  button actuator, Mainta parent	metal  ain, Front dimens  Metal  ain, Front dimens  Metal	ion Ø 29.45 mm  C ion Ø 29.45 mm	45-2234.21G0.000	2	0.032 k
Lens level with front ring  Lens level with front ring  Lens level with front ring	Iluminated push Metal silver  Iluminated push Metal silver	button actuator, Maint Plastic red transparent  button actuator, Maint Plastic yellow transparent  button actuator, Maint Plastic green transparent	metal  ain, Front dimens  Metal  ain, Front dimens  Metal	ion Ø 29.45 mm  C ion Ø 29.45 mm	45-2234.21G0.000	2	0.032 k
Lens level with front ring  Lens level with front ring  Lens level with front ring  Lens level with front ring	Illuminated push Metal silver  Illuminated push Metal silver  Illuminated push Metal silver	button actuator, Maint Plastic red transparent  button actuator, Maint Plastic yellow transparent  button actuator, Maint Plastic green transparent  button actuator, Maint Plastic blue transparent	metal  ain, Front dimens  Metal  ain, Front dimens  Metal  ain, Front dimens  Metal	ion Ø 29.45 mm  C ion Ø 29.45 mm  C	45-2234.21G0.000 45-2234.21H0.000	2 2	0.032 k
Lens level with front ring  Lens level with front ring  Lens level with front ring  Lens level with front ring	Illuminated push Metal silver  Illuminated push Metal silver  Illuminated push Metal silver	button actuator, Mainta Plastic red transparent  button actuator, Mainta Plastic yellow transparent  button actuator, Mainta Plastic green transparent  button actuator, Mainta Plastic green transparent	metal  ain, Front dimens  Metal  ain, Front dimens  Metal  ain, Front dimens  Metal	ion Ø 29.45 mm  C ion Ø 29.45 mm  C	45-2234.21G0.000 45-2234.21H0.000	2 2	0.032 F

						Viring dia- ram	Weight
Product attribute	Front ring	Lens  putton actuator, Mainta	Housing material	Switching action	Part No.	<b>&gt;</b>	Weight
ens level with front ring	Metal silver	Plastic colourless trans-	Metal	С	45-2234.21K0.000	2	0.032 kg
		parent					
		outton actuator, Mome					
ens raised above bezel	Plastic black	Plastic red transparent	Plastic	В	45-2231.12E0.000	1	0.011 k
ens raised above bezel	Iluminated pushb	putton actuator, Mome	entary, Front dime	ension <b>Ø 29.45 m</b> n	1 45-2231.12G0.000	1	0.011 k
		parent					
	lluminated pushb	outton actuator, Mome			n		
							0.0111
Lens raised above bezel	Plastic black	Plastic green transparent	Plastic	В	45-2231.12H0.000	1	0.011 kç
		Plastic green transparent  Dutton actuator, Mome				1	
ens raised above bezel	Iluminated pushk Plastic black	Plastic blue transparent	entary, Front dime	ension <b>Ø 29.45</b> mn	1 45-2231.12J0.000	1	0.011 kg
ens raised above bezel	Iluminated pushb Plastic black	putton actuator, Mome Plastic blue transparent	entary, Front dime	e <b>nsion Ø 29.45 mn</b>	1 45-2231.12J0.000		0.011 kg
ens raised above bezel  ens raised above bezel	Illuminated pushb Plastic black  Illuminated pushb Plastic black	Plastic blue transparent  Dutton actuator, Mome Plastic colourless transparent  Dutton actuator, Mome	entary, Front dime	ension Ø 29.45 mn  ension Ø 29.45 mn  B  ension Ø 29.45 mn	1 45-2231.12J0.000 1 45-2231.12K0.000	1	0.011 k
ens raised above bezel  ens raised above bezel	Iluminated pushb Plastic black  Iluminated pushb Plastic black	Plastic blue transparent  Dutton actuator, Mome  Plastic blue transparent  Dutton actuator, Mome  Plastic colourless transparent	entary, Front dime	ension Ø 29.45 mn	1 45-2231.12J0.000 1 45-2231.12K0.000	1	0.011 k
Lens raised above bezel  Lens raised above bezel  Lens raised above bezel  Lens raised above bezel	Illuminated pushb Plastic black  Illuminated pushb Plastic black  Illuminated pushb Metal sandgrey	Plastic blue transparent  Plastic blue transparent  Dutton actuator, Mome  Plastic colourless transparent  Dutton actuator, Mome  Plastic red transparent  Dutton actuator, Mome  Plastic yellow trans-	entary, Front dime	ension Ø 29.45 mn  ension Ø 29.45 mn  ension Ø 29.45 mn  B	1 45-2231.12J0.000 1 45-2231.12K0.000	1	0.011 k
Lens raised above bezel  Lens raised above bezel  Lens raised above bezel  Lens raised above bezel  Lens raised above bezel	Illuminated pushb Plastic black  Illuminated pushb Plastic black  Illuminated pushb Metal sandgrey  Illuminated pushb Metal sandgrey	Plastic blue transparent  Plastic blue transparent  Plastic colourless transparent  Plastic colourless transparent  Plastic red transparent  Plastic red transparent  Plastic red transparent  Plastic yellow transparent	entary, Front dime Plastic  entary, Front dime Plastic  entary, Front dime Plastic  entary, Front dime	ension Ø 29.45 mn  ension Ø 29.45 mn  ension Ø 29.45 mn  ension Ø 29.45 mn	1 45-2231.12J0.000 1 45-2231.12K0.000 1 45-2231.32E0.000	1	0.011 kg 0.011 kg 0.020 kg
Lens raised above bezel  Lens raised above bezel  Lens raised above bezel  Lens raised above bezel  Lens raised above bezel	Illuminated pushb Plastic black  Illuminated pushb Plastic black  Illuminated pushb Metal sandgrey  Illuminated pushb Metal sandgrey	Plastic blue transparent  Plastic blue transparent  Dutton actuator, Mome  Plastic colourless transparent  Dutton actuator, Mome  Plastic red transparent  Dutton actuator, Mome  Plastic yellow trans-	entary, Front dime Plastic  entary, Front dime Plastic  entary, Front dime Plastic  entary, Front dime Plastic	ension Ø 29.45 mn  ension Ø 29.45 mn  ension Ø 29.45 mn  ension Ø 29.45 mn	1 45-2231.12J0.000 1 45-2231.12K0.000 1 45-2231.32E0.000	1	0.011 k

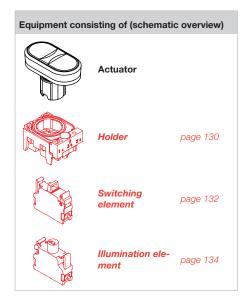
Product attribute	Eront ring	Lens	Housing material	Switching action	Part No.	Wiring dia- <sub>I</sub> ram	Weight
	Front ring		Housing material	Switching action		> 69	weight
_ens raised above bezel	Metal sandgrey	button actuator, Mome	Plastic	B 29.45 IIII	45-2231.32J0.000	1	0.020 k
Solid raided above bozer	Words our lagrey	Tradio Sido da Ispaiorit	T laddo		10 220 1102001000	<u> </u>	0.0201
		button actuator, Mome					
_ens raised above bezel	Metal sandgrey	Plastic colourless trans- parent	Plastic	В	45-2231.32K0.000	1	0.020 k
	lluminated push	button actuator, Mome	entary, Front dime	ension Ø 29.45 mm	1		
Lens raised above bezel	Metal silver	Plastic red transparent	Metal	В	45-2231.22E0.000	1	0.032 k
			N A - + - 1	В	45 0004 0000 000	- 4	0 000 1
Lens raised above bezel	Metal silver	Plastic amber transpa- rency	Metal	В	45-2231.22F0.000	1	0.032 r
		1				1	0.032 F
		rency				1	
Lens raised above bezel	Iluminated push Metal silver	button actuator, Mome	entary, Front dime	ension <b>Ø 29.45 m</b> n	1 45-2231.22G0.000		
Lens raised above bezel	Iluminated push Metal silver	button actuator, Mome  Plastic yellow transparent	entary, Front dime	ension <b>Ø 29.45 m</b> n	1 45-2231.22G0.000		0.032 k
Lens raised above bezel	Iluminated push Metal silver  Iluminated push Metal silver	button actuator, Mome Plastic yellow transparent button actuator, Mome	entary, Front dime Metal	ension Ø 29.45 mm	45-2231.22G0.000 45-2231.22H0.000	1	0.032 k
Lens raised above bezel	Iluminated push Metal silver  Iluminated push Metal silver	button actuator, Mome Plastic yellow transparent  button actuator, Mome Plastic green transparent	entary, Front dime Metal	ension Ø 29.45 mm	45-2231.22G0.000 45-2231.22H0.000	1	0.032 k
Lens raised above bezel  Lens raised above bezel  Lens raised above bezel  Lens raised above bezel	Illuminated push Metal silver  Illuminated push Metal silver  Illuminated push Metal silver	button actuator, Mome Plastic yellow transparent  button actuator, Mome Plastic green transparent  button actuator, Mome Plastic blue transparent	entary, Front dime	ension Ø 29.45 mm ension Ø 29.45 mm B	45-2231.22G0.000 45-2231.22H0.000 45-2231.22J0.000	1	0.032 k
Lens raised above bezel  Lens raised above bezel  Lens raised above bezel  Lens raised above bezel	Illuminated push Metal silver  Illuminated push Metal silver  Illuminated push Metal silver	button actuator, Mome Plastic yellow transparent  button actuator, Mome Plastic green transparent  button actuator, Mome	entary, Front dime	ension Ø 29.45 mm ension Ø 29.45 mm B	45-2231.22G0.000 45-2231.22H0.000 45-2231.22J0.000	1	0.032 F

Product attribute	Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
	luminated pushbut	on actuator, Mome	ntary, Front dimens	sion Ø 29.45 mm			
Lens raised above bezel	Metal silver	Plastic white transparent	Metal	В	45-2231.22N0.000	1	0.032 kg
	luminated pushbut	on actuator, Mome	ntary, Front dimens	sion Ø 29.45 mm			
Lens lover than front ring, with castellation	Plastic black	Plastic blue transparent	Plastic	В	45-2231.14J0.000	1	0.011 kg

Switching action: B = Momentary, C = Maintain

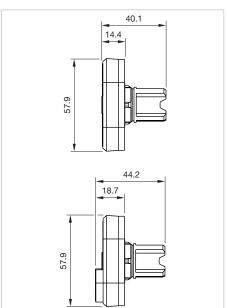
E	E~-
Wiring diagram 1	Wiring diagram 2

#### Illuminated double pushbutton, IP66, IP67, IP69K



Each Part Number listed below includes all the black components shown in the 3D-drawing.

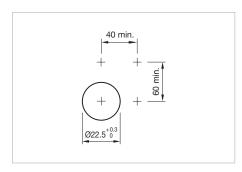
To obtain a complete unit, please select the red components from the pages shown.



Dimensions [mm]



Product can differ from the current configuration.



Mounting cut-outs [mm]

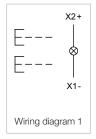
#### **Additional Information**

- Mounting depth incl. front plate, see chapter «drawings»
- With illuminative centre window

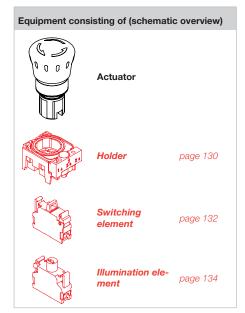
Product attribute	Front ring	Lens	Switching action	Part No.	Compo- nent layout	Wiring dia- gram	Weight
Illuminated do	uble pushbutton act	uator, Momentary, F	ront dimension	57.7 x 29.8 mm			
2 lenses, level with front ring	Plastic black	Plastic green-red	В	45-2K31.16T0.000	4	1	0.025 kç
Illuminated do	uble pushbutton act	uator, Momentary, F	ront dimension	57.7 x 29.8 mm			
Illuminated do 2 lenses, level with front ring	uble pushbutton act	uator, Momentary, F	ront dimension	57.7 x 29.8 mm 45-2K31.16V0.000	4	1	0.025 kg
2 lenses, level with front ring	•	Plastic white-black	В	45-2K31.16V0.000	4	1	0.025 kç

Product attribute	Front ring	Lens	Switching action	Part No.	Bauteile- Layout	Wiring dia- gram	Weight
Illuminated dou	uble pushbutton act	uator, Momentary, F	ront dimension	57.7 x 29.8 mm			
2 lenses, level with/raised above front ring	Plastic black	Plastic white-black	В	45-2K31.15V0.000	4	1	0.025 kg
Illuminated dou 2 lenses, level with front ring	uble pushbutton act	ruator, Momentary, F	ront dimension	57.7 x 29.8 mm 45-2K31.36T0.000	4	1	0.043 kg
Illuminated dou	uble pushbutton act	uator, Momentary, F	ront dimension	57.7 x 29.8 mm			
Illuminated dou 2 lenses, level with front ring	uble pushbutton act	ruator, Momentary, F	ront dimension	57.7 x 29.8 mm 45-2K31.36V0.000	4	1	0.043 kg
2 lenses, level with front ring	Metal sandgrey		В	45-2K31.36V0.000	4	1	0.043 kg
2 lenses, level with front ring  Illuminated dou	Metal sandgrey	Plastic white-black	В	45-2K31.36V0.000	4	1	0.043 kg
2 lenses, level with front ring  Illuminated dou 2 lenses, level with/raised above front ring	Metal sandgrey  uble pushbutton act  Metal sandgrey	Plastic white-black	ront dimension	45-2K31.36V0.000 57.7 x 29.8 mm 45-2K31.35T0.000			

Switching action: B = Momentary The component layouts you will find from page 144

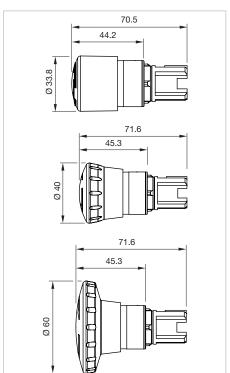


### Emergency-stop switch foolproof, EN IEC 60947-5-5, IP66, IP67, IP69K



Each Part Number listed below includes all the black components shown in the 3D-drawing.

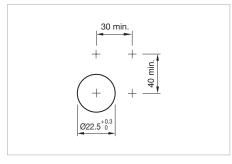
To obtain a complete unit, please select the red components from the pages shown.





Product can differ from the current configuration.

Dimensions [mm]



Mounting cut-outs [mm]

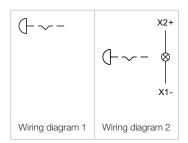
#### Additional Information

- Mounting depth incl. front plate, see chapter «drawings»
- The standard lock: RONIS, T254
- Two keys are supplied with each key lock switch

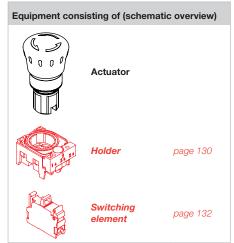
Product attribute	Front ring	Lens	Switching action	Part No.	Wiring dia- gram	Weight
Eme		· · · ·	I IEC 60947-5-5, Front dim	ension Ø 33.8 mm		
Eme twist to release	ergency-stop switch a	actuator, foolproof EN	I IEC 60947-5-5, Front dim	ension Ø 33.8 mm 45-2C36.1820.000	1	0.046 k
twist to release	Plastic black	Plastic red		45-2C36.1820.000	1	0.046 kg

Draduat attribute	Front vin -	Long	Suitabine astine	Dort No.	Viring dia- gram	Weight
Product attribute	Front ring	Lens	Switching action  I IEC 60947-5-5, Front din	Part No.	> 6)	weight
wist to release, illuminable	Metall silber	Plastic red	C	45-2D36.2820.000	2	0.046 kg
Eme	ergency-stop switc	n actuator, foolproof EN	I IEC 60947-5-5, Front din	nension Ø 40 mm		
wist to release	Plastic black	Plastic red	С	45-2C36.1920.000	1	0.046 kg
Eme	ergency-stop switc	n actuator, foolproof EN	I IEC 60947-5-5, Front din	nension Ø 40 mm		
	ergency-stop switch	h actuator, foolproof EN	I IEC 60947-5-5, Front din	nension Ø 40 mm 45-2D36.1920.000	2	0.046 k
wist to release, illuminable	Plastic black	Plastic red	•	45-2D36.1920.000	2	
wist to release, illuminable  Eme	Plastic black  Pregency-stop switch  Plastic black	Plastic red  h actuator, foolproof EN  Plastic red	C I IEC 60947-5-5, Front din	45-2D36.1920.000  nension Ø 60 mm  45-2C36.1A20.000		
Eme	Plastic black  Pregency-stop switch  Plastic black	Plastic red  h actuator, foolproof EN  Plastic red	C   IEC 60947-5-5, Front din   C	45-2D36.1920.000  nension Ø 60 mm  45-2C36.1A20.000		0.056 kg
Emetwist to release, illuminable  Emetwist to release  Emetwist to release, illuminable	Plastic black  Plastic black  Plastic black  Property-stop switch  Plastic black	Plastic red  Plastic red  Plastic red  Plastic red  Plastic red	IEC 60947-5-5, Front din	45-2D36.1920.000  nension Ø 60 mm  45-2C36.1A20.000  nension Ø 60 mm  45-2D36.1A20.000	1	0.046 kg

Switching action: C = Maintain

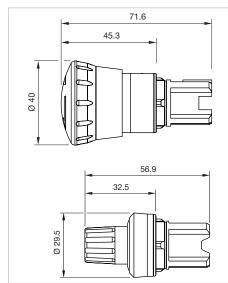


### Stop switch actuator, foolproof, IP66, IP67, IP69K



Each Part Number listed below includes all the black components shown in the 3D-drawing.

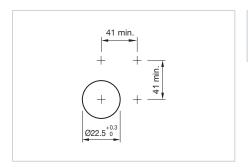
To obtain a complete unit, please select the red components from the pages shown.



Dimensions [mm]



Product can differ from the current configuration.



Mounting cut-outs [mm]

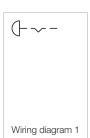
#### Additional Information

 Mounting depth incl. front plate, see chapter «drawings»

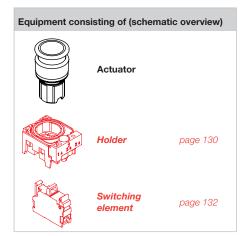
Product attribute	Front ring	Lens	Switching action	Lever	Part No.	Wiring dia- gram	Weight
	Stop switch actu	ator, foolproof, Fro	ont dimension Ø 40 mn	1			
twist to release	Plastic black	Plastic black	С	_	45-2736.1910.000	1	0.036 kg
	Stop switch actu	ator, foolproof, Fro	ont dimension Ø 40 mn	1			

Product attribute	Front ring	Lens	Switching action	Lever	Part No.	Wiring dia- gram	Weight
Stop switch	h actuator, fool	proof, Front dim	nension Ø 29.5 m	m			
twist to release, can be latched after pressing by rotating to the right	Plastic black	_	С	Plastic black	45-2729.1010.000	1	0.018 kg
Stop switch	h actuator, fool	proof, Front din	nension Ø 29.5 m	m			
twist to release, can be latched after pressing by rotating to the right	Plastic black	-	С	Plastic red	45-2729.1020.000	1	0.018 kg

Switching action: C = Maintain

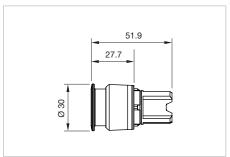


### Mushroom-head pushbutton Ø 30 mm, IP66, IP67, IP69K



Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

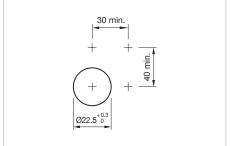


Dimensions [mm]

Mounting cut-outs [mm]



Product can differ from the current configuration.



#### **Additional Information**

Mounting depth incl. front plate, see chapter «drawings»

Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
	Mushroom-head pushb	outton actuator, Maintain,	Front dimension Ø 30 r	mm		
Plastic black	Plastic black	Plastic	С	45-2530.1810.000	2	0.020 kg
Plastic black	Mushroom-head pushb	putton actuator, Maintain,	Front dimension Ø 30 r	mm 45-2530.1820.000	2	0.020 kạ
	Mushroom-head pushb	outton actuator, Maintain,	Front dimension Ø 30 r	mm		
Plastic black	Mushroom-head pushb	outton actuator, Maintain,	Front dimension Ø 30 r	mm 45-2530.1840.000	2	0.020 kg
Plastic black	Plastic yellow		С	45-2530.1840.000 80 mm	2	0.020 kį
	Plastic yellow	Plastic	С	45-2530.1840.000	2	0.020 kg
Plastic black  Plastic black	Plastic yellow  Mushroom-head pushb  Plastic black	Plastic	ry, Front dimension Ø 3	45-2530.1840.000 80 mm 45-2531.1810.000		

	9					
					liring dia- ram	Weight
Front ring	Lens	Housing material	Switching action	Part No.	≥ 5	Weight
	Mushroom hood pushh	outton actuator, Momentar	a. Front dimension (6.3	0 mm		
Plantin blank	-		-		4	0.000 140
Plastic black	Plastic yellow	Plastic	В	45-2531.1840.000	1	0.020 kg
	Mushroom-head pushb	outton actuator, Momentar	y, Front dimension Ø 3	0 mm		
Plastic black	Plastic green	Plastic	В	45-2531.1850.000	1	0.020 kç
	Mushroom-head pushb	outton actuator, Maintain, I	Front dimension Ø 30 r	nm		
Metal sandgrey	Plastic black	Plastic	С	45-2530.3810.000	2	0.034 kg
Metal sandgrey	Mushroom-head pushb	outton actuator, Maintain, I	Front dimension Ø 30 r	nm 45-2530.3820.000	2	0.034 kg
	Mushroom-head pushb	utton actuator, Momentar	y, Front dimension Ø 3	0 mm		
Metal sandgrey	Plastic black	Plastic	В	45-2531.3810.000	1	0.034 kg
	Mushroom-head pushb	outton actuator, Momentar	y, Front dimension Ø 3	0 mm		
Metal sandgrey	Plastic red	Plastic	В	45-2531.3820.000	1	0.034 kg
	Mushroom-head pushb	outton actuator, Momentar	y, Front dimension Ø 3	0 mm		
Metal sandgrey	Plastic yellow	Plastic	В	45-2531.3840.000	1	0.034 kg
	Mushroom-head pushb	outton actuator, Momentar	y, Front dimension Ø 3	0 mm		
Metal sandgrey	Plastic green	Plastic	В	45-2531.3850.000	1	0.034 kg
	, v					
		outton actuator, Maintain, I			0	0.0501
Metal silver	Plastic black	Metal	С	45-2530.2810.000	2	0.052 kg

Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
	Mushroom-head pushb	utton actuator, Maintain, I	Front dimension Ø 30 r	nm		
Metal silver	Plastic red	Metal	С	45-2530.2820.000	2	0.052 kg
Metal silver	Plastic black	Metal	В	45-2531.2810.000	1	0.052 kg
Metal silver	Plastic black	Metal	В	45-2531.2810.000	1	0.052 kg
		outton actuator, Momentar	-			T
Metal silver	Plastic red	Metal	В	45-2531.2820.000	1	0.052 kg
	Mushroom-head pushb	utton actuator, Momentar	y, Front dimension Ø 3	0 mm		
Metal silver	Plastic yellow	Metal	В	45-2531.2840.000	1	0.052 kg
	Mushroom-head pushb	utton actuator, Momentar	y, Front dimension Ø 3	0 mm		
Metal silver	Plastic green	Metal	В	45-2531.2850.000	1	0.052 kg

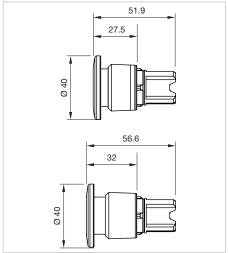
Switching action: B = Momentary, C = Maintain

E	E~-
Wiring diagram 1	Wiring diagram 2

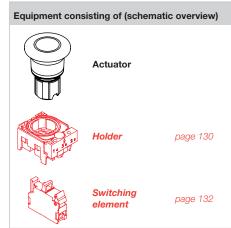
### Mushroom-head pushbutton Ø 40 mm, IP66, IP67, IP69K



Product can differ from the current configuration.



Dimensions [mm]

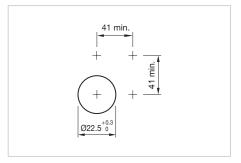


Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

#### **Additional Information**

 Mounting depth incl. front plate, see chapter «drawings»



Mounting cut-outs [mm]

Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
	Mushroom-head pushb	utton actuator, Maintain, I	Front dimension Ø 40 r	nm		
Plastic black	Plastic black	Plastic	С	45-2530.1910.000	2	0.022 kg
Plastic black	Plastic red	Plastic	С	45-2530.1920.000	2	0.020 kg
Plastic black		utton actuator, Maintain, F			2	0.020 kg
	Mushroom-head pushb	utton actuator, Maintain, I	Front dimension Ø 40 r	nm		
Plastic black	Mushroom-head pushb	utton actuator, Maintain, I	Front dimension Ø 40 r	nm 45-2530.1940.000	2	0.020 kg
Plastic black	Plastic yellow	· · · · · · · · · · · · · · · · · · ·	С	45-2530.1940.000	2	0.020 kg

Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
TO THE STATE OF TH		outton actuator, Momentar			2 0/	Weight
Plastic black	Plastic black	Plastic	В	45-2531.1910.000	1	0.020 kg
	Mushroom-head pushk	outton actuator, Momentar	y, Front dimension Ø 4	10 mm		
Plastic black	Plastic red	Plastic	В	45-2531.1920.000	1	0.020 kg
Plastic black	Mushroom-head pushb Plastic yellow	putton actuator, Momentar Plastic	ry, Front dimension Ø 4	45-2531.1940.000	1	0.020 k
	Mushroom-head pushb	outton actuator, Momentar	y, Front dimension Ø 4	10 mm		
Plastic black	Plastic green	Plastic	В	45-2531.1950.000	1	0.020 k
Metal sandgrey	Mushroom-head pushb	putton actuator, Maintain, l	Front dimension Ø 40 ı	mm 45-2530.3910.000	2	0.034 kg
						0.00+10
	Mushroom-head pushb	outton actuator, Maintain, l	Front dimension Ø 40 ı	mm		0.504 K
Metal sandgrey	Mushroom-head pushb	outton actuator, Maintain, l	Front dimension Ø 40 ı	mm 45-2530.3920.000	2	
	Plastic red  Mushroom-head pushb	Plastic	y, Front dimension Ø 4	45-2530.3920.000		0.034 kį
	Plastic red	Plastic	С	45-2530.3920.000	2	0.034 k
	Mushroom-head pushb Plastic black  Mushroom-head pushb	Plastic  Putton actuator, Momentar  Plastic	y, Front dimension Ø 4	45-2530.3920.000  40 mm  45-2531.3910.000		0.034 kg
Metal sandgrey  Metal sandgrey  Metal sandgrey	Plastic red  Mushroom-head pushb  Plastic black	Plastic  Putton actuator, Momentar  Plastic	y, Front dimension Ø 4	45-2530.3920.000 40 mm 45-2531.3910.000		0.034 k
Metal sandgrey	Mushroom-head pushb Plastic black  Mushroom-head pushb Plastic red	Plastic  Putton actuator, Momentar  Plastic	y, Front dimension Ø 4	45-2530.3920.000  40 mm  45-2531.3910.000  45-2531.3920.000	1	0.034 kg

					Wiring dia- gram	
ront ring	Lens	Housing material	Switching action	Part No.	Wiring	Weight
	Mushroom-head pushb	utton actuator, Momentar	y, Front dimension Ø 4	0 mm		
Metal sandgrey	Plastic green	Plastic	В	45-2531.3950.000	1	0.034 kg
OFF	Marshara and based acceptable					
		utton actuator, Maintain, I				
Metal silver	Plastic black	Metal	С	45-2530.2910.000	2	0.052 kg
	Mushroom-head pushb	utton actuator, Maintain, I	Front dimension Ø 40 r	nm		
Metal silver	Plastic red	Metal	С	45-2530.2920.000	2	0.052 kg
	Mushroom-head pushb	utton actuator, Maintain, I	Front dimension Ø 40 r	nm		
Metal silver	Plastic yellow	Metal	С	45-2530.2940.000	2	0.052 kg
Matal ailyar		utton actuator, Momentar			4	0.052 kg
Metal silver	Mushroom-head pushb	utton actuator, Momentar  Metal	y, Front dimension Ø 4	0 mm 45-2531.2910.000	1	0.052 kg
Metal silver	Plastic black  Mushroom-head pushb		В	45-2531.2910.000	1	0.052 kg
Metal silver  Metal silver	Plastic black	Metal	В	45-2531.2910.000	1	0.052 kg
	Mushroom-head pushbounded Plastic red	Metal utton actuator, Momentar	y, Front dimension Ø 4	45-2531.2910.000  0 mm  45-2531.2920.000		
Metal silver	Mushroom-head pushbounded Plastic red	Metal  utton actuator, Momentar  Metal	y, Front dimension Ø 4	45-2531.2910.000  0 mm  45-2531.2920.000		0.052 kg
Metal silver	Mushroom-head pushb Plastic red  Mushroom-head pushb Plastic yellow	Metal  utton actuator, Momentar  Metal  utton actuator, Momentar  Metal	y, Front dimension Ø 4  B  y, Front dimension Ø 4	0 mm 45-2531.2910.000 0 mm 45-2531.2920.000 45-2531.2940.000	1	0.052 kg
Metal silver  Metal silver	Mushroom-head pushbound Plastic red  Mushroom-head pushbound Plastic yellow  Mushroom-head pushbound pushb	Metal  utton actuator, Momentar  Metal  utton actuator, Momentar  Metal	y, Front dimension Ø 4  y, Front dimension Ø 4  B  y, Front dimension Ø 4	45-2531.2910.000  0 mm  45-2531.2920.000  0 mm  45-2531.2940.000	1	0.052 kg
	Mushroom-head pushb Plastic red  Mushroom-head pushb Plastic yellow	Metal  utton actuator, Momentar  Metal  utton actuator, Momentar  Metal	y, Front dimension Ø 4  B  y, Front dimension Ø 4	0 mm 45-2531.2910.000 0 mm 45-2531.2920.000 45-2531.2940.000	1	0.052 kg
Metal silver  Metal silver	Mushroom-head pushbout Plastic red  Mushroom-head pushbout Plastic yellow  Mushroom-head pushbout Plastic green	Metal  utton actuator, Momentar  Metal  utton actuator, Momentar  Metal	y, Front dimension Ø 4  y, Front dimension Ø 4  B  y, Front dimension Ø 4	0 mm 45-2531.2910.000 0 mm 45-2531.2940.000 0 mm 45-2531.2950.000	1	0.052 kg

Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
	Mushroom-head push	button actuator, momentar	y/maintain, Front dir	mension Ø 40 mm		
Metal silver	Plastic red	Metal	B/C	45-2532.2920.000	3	0.052 kg
	Mushroom-head push	button actuator, momentar	y/momentary, Front	dimension Ø 40 mm		
Metal silver	Plastic black	Metal	B/B	45-2533.2910.000	4	0.052 kg
	Mushroom-head push	button actuator, momentar	y/momentary, Front	dimension Ø 40 mm		
Metal silver	Plastic red	Metal	B/B	45-2533.2920.000	4	0.052 kg

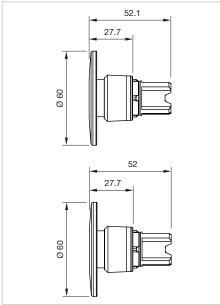
 $Switching \ action: \ B = Momentary, \ C = Maintain, \ B/B = Momentary/Momentary, \ B/C = Momentary/Maintain$ 

E	E~-	<del>E</del>	<del>-</del> E~-		
Wiring diagram 1	Wiring diagram 2	Wiring diagram 3	Wiring diagram 4		

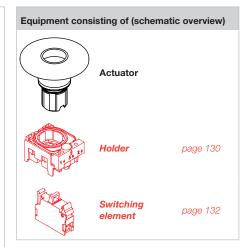
### Mushroom-head pushbutton Ø 60 mm, IP66, IP67, IP69K



Product can differ from the current configuration.





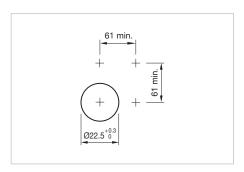


Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

#### **Additional Information**

 Mounting depth incl. front plate, see chapter «drawings»



Mounting cut-outs [mm]

Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
	Mushroom-head pushb	outton actuator, Maintain, F	Front dimension Ø 60 n	nm		
Plastic black	Plastic black	Plastic	С	45-2530.1A10.000	2	0.022 kg
Plastic black	Plastic red	Plastic	С	45-2530.1A20.000	2	0.020 kg
	Mushroom-head pushb	outton actuator, Momentar	y, Front dimension Ø 6	0 mm		
Plastic black	Mushroom-head pushb	putton actuator, Momentar	y, Front dimension Ø 6	0 mm 45-2531.1A10.000	1	0.020 kg
Plastic black	Plastic black		В	45-2531.1A10.000	1	0.020 kç

Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
Profit filing		putton actuator, Momentar			<b>7</b> 6,	weight
Plastic black	Plastic yellow	Plastic	В	45-2531.1A40.000	1	0.020 kç
	Mushroom-head pushb	outton actuator, Momentar	y, Front dimension Ø 6	60 mm		1
Plastic black	Plastic green	Plastic	В	45-2531.1A50.000	1	0.020 k
Matal silver		outton actuator, Maintain, I			2	0.052
Metal silver	Plastic black	Metal	С	45-2530.2A10.000	2	0.052 kç
		outton actuator, Maintain, I			1.	
Metal silver	Plastic red	Metal	С	45-2530.2A20.000	2	0.052 kç
Metal silver  Metal silver	Plastic red		С	45-2530.2A20.000	2	
	Plastic red  Mushroom-head pushb  Plastic black	Metal  Dutton actuator, Momentar	y, Front dimension Ø 6	45-2530.2A20.000 60 mm 45-2531.2A10.000		0.052 kç
Metal silver	Mushroom-head pushb Plastic black  Mushroom-head pushb Plastic red	Metal  Putton actuator, Momentar  Metal  Dutton actuator, Momentar	y, Front dimension Ø 6	60 mm 45-2531.2A10.000 60 mm 45-2531.2A20.000	1	0.052 kç
Metal silver	Mushroom-head pushb Plastic black  Mushroom-head pushb Plastic red	Metal  Putton actuator, Momentar  Metal  Putton actuator, Momentar  Metal	y, Front dimension Ø 6	60 mm 45-2531.2A10.000 60 mm 45-2531.2A20.000	1	0.052 kg
Metal silver  Metal silver	Mushroom-head pushb Plastic black  Mushroom-head pushb Plastic red  Mushroom-head pushb Plastic yellow	Metal  Dutton actuator, Momentar  Metal  Dutton actuator, Momentar  Metal  Dutton actuator, Momentar	y, Front dimension Ø 6  y, Front dimension Ø 6  B  y, Front dimension Ø 6	60 mm 45-2531.2A10.000 60 mm 45-2531.2A20.000 60 mm 45-2531.2A40.000	1	0.052 kg 0.052 kg 0.052 kg
Metal silver  Metal silver	Mushroom-head pushb Plastic black  Mushroom-head pushb Plastic red  Mushroom-head pushb Plastic yellow	Metal  Putton actuator, Momentar  Metal  Dutton actuator, Momentar  Metal  Dutton actuator, Momentar  Metal	y, Front dimension Ø 6  y, Front dimension Ø 6  B  y, Front dimension Ø 6	60 mm 45-2531.2A10.000 60 mm 45-2531.2A20.000 60 mm 45-2531.2A40.000	1	0.052 kg

E--- E ← 
Wiring diagram 1 Wiring diagram 2

#### Mushroom-head pushbutton Ø 30 mm, illuminated, IP66, IP67, IP69K



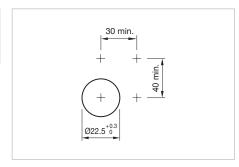
Product can differ from the current configuration.

## 51.9

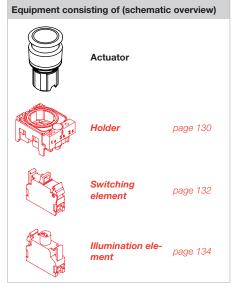
Dimensions [mm]

#### **Additional Information**

 Mounting depth incl. front plate, see chapter «drawings»



Mounting cut-outs [mm]



Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

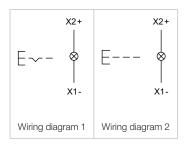
Mushroom-head pushbutton actuator, Maintain, Front dimension Ø 30 mm  Plastic black Plastic red transparent Plastic C 45-26			
Plastic black Plastic red transparent Plastic C 45-26			
	2630.18E0.000	1	0.027 kg
Mushroom-head pushbutton actuator, Maintain, Front dimension Ø 30 mm			
Plastic black Plastic yellow transparent Plastic C 45-26	2630.18G0.000	1	0.027 kg
Mushroom-head pushbutton actuator, Maintain, Front dimension Ø 30 mm  Plastic black Plastic green transparent Plastic C 45-26	2630.18H0.000	1	0.027 kg
Mushroom-head pushbutton actuator, Maintain, Front dimension Ø 30 mm			
Plastic black Plastic blue transparent Plastic C 45-26	2630.18J0.000	1	0.027 kg
Mushroom-head pushbutton actuator, Maintain, Front dimension Ø 30 mm			

Frank vin a	Lane	Haveing makerial	Suitabing asting	Dovt No.	Wiring dia- gram	Weight
Front ring	Lens  Mushroom-head pushbutton	Housing material  actuator. Momentary	Switching action	Part No.	> 6)	weight
Plastic black	Plastic red transparent	Plastic	В	45-2631.18E0.000	2	0.033 k
	Mushroom-head pushbutton	actuator, Momentary	, Front dimension Ø 3	30 mm		
Plastic black	Plastic yellow transparent	Plastic	В	45-2631.18G0.000	2	0.033 k
Plastic black	Mushroom-head pushbutton  Plastic green transparent	Plastic	В	45-2631.18H0.000	2	0.033 k
Plastic black	Mushroom-head pushbutton  Plastic blue transparent	Plastic	, Front dimension Ø 3	45-2631.18J0.000	2	0.033 k
Plastic black	Mushroom-head pushbutton  Plastic colourless transparent	actuator, Momentary   Plastic	, Front dimension Ø 3	80 mm 45-2631.18K0.000	2	0.033 k
Plastic black	Plastic colourless transparent	Plastic	В	45-2631.18K0.000	2	0.033 k
0		Plastic	В	45-2631.18K0.000	2	0.033 kq
Plastic black  Plastic black	Mushroom-head pushbutton Plastic white transparent  Mushroom-head pushbutton	actuator, Momentary Plastic  actuator, Maintain, Fr	B  Front dimension Ø 3	45-2631.18K0.000  80 mm  45-2631.18N0.000	2	0.033 k
Plastic black	Plastic colourless transparent  Mushroom-head pushbutton  Plastic white transparent	Plastic  actuator, Momentary  Plastic	, Front dimension Ø 3	45-2631.18K0.000 80 mm 45-2631.18N0.000		0.033 k
Plastic black  Metal sandgrey	Mushroom-head pushbutton Plastic white transparent  Mushroom-head pushbutton  Plastic red transparent  Mushroom-head pushbutton	actuator, Momentary Plastic  actuator, Maintain, Fi Plastic  actuator, Maintain, Fi	Front dimension Ø 30 ront dimension Ø 30 ront dimension Ø 30 r	45-2631.18K0.000  80 mm  45-2631.18N0.000  mm  45-2630.38E0.000	1	0.033 kg
0	Mushroom-head pushbutton Plastic white transparent  Mushroom-head pushbutton  Plastic red transparent	actuator, Momentary Plastic  actuator, Maintain, Fi	Front dimension Ø 3	45-2631.18K0.000  80 mm  45-2631.18N0.000	2	0.033 k
Plastic black  Metal sandgrey	Mushroom-head pushbutton Plastic white transparent  Mushroom-head pushbutton  Plastic red transparent  Mushroom-head pushbutton	actuator, Momentary Plastic  actuator, Maintain, Fi Plastic  actuator, Maintain, Fi Plastic	Front dimension Ø 30 ront dimension Ø 30 ront dimension Ø 30 r	45-2631.18K0.000  80 mm  45-2631.18N0.000  mm  45-2630.38E0.000	1	0.033 k

	G					
					Wiring dia- gram	Weight
Front ring	Lens	Housing material	Switching action	Part No.	≥ p	Weight
	Mushroom-head pushbutton	actuator Momentary	Front dimension Ø 3	0 mm		
Metal sandgrey	Plastic red transparent	Plastic	В	45-2631.38H0.000	2	0.026 kg
ivietai sariugrey	Flastic red transparent	Flastic	Ь	43-2031.30110.000		0.020 kg
M	Mushroom-head pushbutton	actuator, Momentary	, Front dimension Ø 3	0 mm		
Metal sandgrey	Plastic colourless transparent	Plastic	В	45-2631.38K0.000	2	0.026 kg
	Mushroom-head pushbutton	_				T
Metal sandgrey	Plastic white transparent	Plastic	В	45-2631.38N0.000	2	0.026 kg
Metal silver	Mushroom-head pushbutton Plastic amber transparency	actuator, Maintain, F	ront dimension Ø 30 m	45-2630.28F0.000	1	0.052 kg
	Mushroom-head pushbutton	actuator. Maintain. F	ront dimension Ø 30 n	nm		
Metal silver	Plastic red transparent	Metal	C	45-2630.28E0.000	1	0.052 kg
	Mushroom-head pushbutton	actuator Maintain E	rant dimension Ø 30 m	am.		_
Metal silver	Plastic yellow transparent	Metal	C	45-2630.28G0.000	1	0.052 kg
ivietal silver	Mushroom-head pushbutton				1	0.032 kg
Metal silver	Plastic green transparent	Metal	С	45-2630.28H0.000	1	0.052 kg
	Mushroom-head pushbutton	actuator, Maintain, F	ront dimension Ø 30 n	nm		
Metal silver	Plastic blue transparent	Metal	С	45-2630.28J0.000	1	0.052 kg
					<u> </u>	9
	Mushroom-head pushbutton					0.0501
Metal silver	Plastic colourless transparent	Metal	С	45-2630.28K0.000	1	0.052 kg

Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
OF STREET	Mushroom-head pushbutto	n actuator, Momentary	√, Front dimension Ø 3	0 mm		
Metal silver	Plastic yellow transparent	Metal	В	45-2631.28G0.000	2	0.041 kg
	Mushroom-head pushbutto	n actuator, Momentary	y, Front dimension Ø 3	0 mm		
Metal silver	Plastic green transparent	Metal	В	45-2631.28H0.000	2	0.041 kg
OFF	Mushroom-head pushbutto	n actuator, Momentary	, Front dimension Ø 3	0 mm	1	

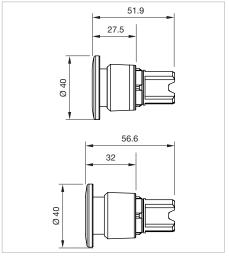
Switching action: B = Momentary, C = Maintain



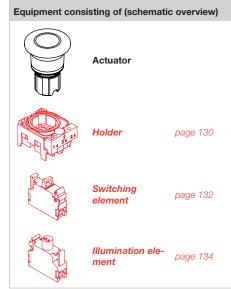
#### Mushroom-head pushbutton Ø 40 mm, illuminated, IP66, IP67, IP69K



Product can differ from the current configuration.



Dimensions [mm]



Each Part Number listed below includes all the black

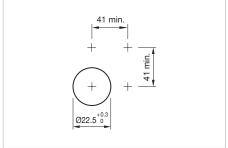
ponents from the pages shown.

components shown in the 3D-drawing.

To obtain a complete unit, please select the red com-

#### **Additional Information**

 Mounting depth incl. front plate, see chapter «drawings»



Mounting cut-outs [mm]

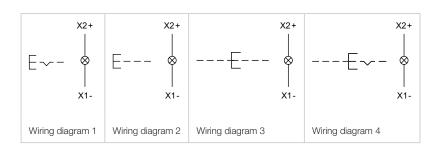
Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
	Mushroom-head pushbutto	n actuator, Maintain, I	Front dimension Ø 40 r	mm		
Plastic black	Plastic red transparent	Plastic	С	45-2630.19E0.000	1	0.028 kg
Plantia black	Mushroom-head pushbutto				1	0.000 1/0
Plastic black	Mushroom-head pushbutto Plastic yellow transparent	n actuator, Maintain, I Plastic	Front dimension Ø 40 r	45-2630.19G0.000	1	0.028 kg
	Plastic yellow transparent  Mushroom-head pushbutto	Plastic n actuator, Maintain, I	C Front dimension Ø 40 r	45-2630.19G0.000		
	Plastic yellow transparent	Plastic	С	45-2630.19G0.000	1	0.028 kg
Plastic black  Plastic black	Plastic yellow transparent  Mushroom-head pushbutto	Plastic  n actuator, Maintain, I  Plastic	C Front dimension Ø 40 r □	45-2630.19G0.000 mm 45-2630.19H0.000		

Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
	Mushroom-head pushbutton					Tiolgin
Plastic black	Plastic colourless transparent	Plastic	С	45-2630.19K0.000	1	0.028 k
	Mushroom-head pushbutton	actuator, Momentary	r, Front dimension Ø ₄	40 mm		
Plastic black	Plastic yellow transparent	Plastic	В	45-2631.19G0.000	2	0.019 k
Plastic black	Mushroom-head pushbutton Plastic green transparent	Plastic	В	45-2631.19H0.000	2	0.019 k
	Mushroom-head pushbutton	· · · · · ·				
Plastic black	Plastic colourless transparent	Plastic	В	45-2631.19K0.000	2	0.019 kç
	Mushroom-head pushbutton	actuator, Momentary	, Front dimension Ø 4	40 mm		
	Mushroom-head pushbutton  Plastic white transparent	actuator, Momentary Plastic	<b>7, Front dimension Ø</b> 4	40 mm 45-2631.19N0.000	2	
Plastic black	Mushroom-head pushbutton	actuator, Momentary Plastic	<b>7, Front dimension Ø</b> 4	40 mm 45-2631.19N0.000		0.019 k
Plastic black  Metal sandgrey	Mushroom-head pushbutton Plastic white transparent  Mushroom-head pushbutton Plastic red transparent  Mushroom-head pushbutton	actuator, Momentary Plastic  actuator, Maintain, F  Plastic  actuator, Maintain, F	ront dimension Ø 40 ront d	40 mm 45-2631.19N0.000 mm 45-2630.39E0.000	2	0.019 kg
Plastic black  Metal sandgrey	Mushroom-head pushbutton  Plastic white transparent  Mushroom-head pushbutton  Plastic red transparent	actuator, Momentary Plastic  actuator, Maintain, F	ront dimension Ø 40	40 mm 45-2631.19N0.000 mm 45-2630.39E0.000	2	0.019 k
Plastic black  Metal sandgrey	Mushroom-head pushbutton Plastic white transparent  Mushroom-head pushbutton Plastic red transparent  Mushroom-head pushbutton	actuator, Momentary Plastic  actuator, Maintain, F Plastic  actuator, Maintain, F Plastic	ront dimension Ø 40 c	40 mm 45-2631.19N0.000 mm 45-2630.39E0.000	2	0.019 kg
Plastic black	Mushroom-head pushbutton  Plastic white transparent  Mushroom-head pushbutton  Plastic red transparent  Mushroom-head pushbutton  Plastic yellow transparent	actuator, Momentary Plastic  actuator, Maintain, F Plastic  actuator, Maintain, F Plastic	ront dimension Ø 40 c	40 mm 45-2631.19N0.000 mm 45-2630.39E0.000	2	0.019 k
Plastic black  Metal sandgrey  Metal sandgrey	Mushroom-head pushbutton  Plastic white transparent  Mushroom-head pushbutton  Plastic red transparent  Mushroom-head pushbutton  Plastic yellow transparent  Mushroom-head pushbutton	actuator, Momentary Plastic  actuator, Maintain, F Plastic  actuator, Maintain, F  Plastic  actuator, Momentary Plastic	ront dimension Ø 40 pront dime	40 mm  45-2631.19N0.000  mm  45-2630.39E0.000  45-2630.39G0.000  40 mm  45-2631.39G0.000	1	0.019 k

					Wiring dia- gram	Weight
Front ring	Lens	Housing material	Switching action	Part No.	≥ ₽	Weight
OF	Mushroom-head pushbutton	actuator, Momentary	. Front dimension Ø 4	0 mm		
Metal sandgrey	Plastic colourless transparent	Plastic	В	45-2631.39K0.000	2	0.028 kg
Thoras can ogrey	Mushroom-head pushbutton					0.020 Ng
Metal sandgrey	Plastic white transparent	Plastic	В	45-2631.39N0.000	2	0.028 kg
	Mushroom-head pushbutton	actuator, Maintain, F		nm		
Metal silver	Plastic red transparent	Metal	С	45-2630.29E0.000	1	0.035 kg
Metal silver	Mushroom-head pushbutton  Plastic amber transparency	actuator, Maintain, F	ront dimension Ø 40 n	nm 45-2630.29F0.000	1	0.053 kg
	Mushroom-head pushbutton	actuator, Maintain, F	ront dimension Ø 40 n	nm		
Metal silver	-					
	Plastic yellow transparent	Metal	C	45-2630.29G0.000	1	0.053 kg
					1	0.053 kg
Metal silver	Mushroom-head pushbutton  Plastic green transparent				1	0.053 kg
Metal silver	Mushroom-head pushbutton	actuator, Maintain, F	ront dimension Ø 40 n	nm 45-2630.29H0.000	1	
	Mushroom-head pushbutton  Plastic green transparent	actuator, Maintain, F	ront dimension Ø 40 n	nm 45-2630.29H0.000	1 1	
	Mushroom-head pushbutton  Plastic green transparent  Mushroom-head pushbutton  Plastic blue transparent	actuator, Maintain, Franction Metal	ront dimension Ø 40 n  C  ront dimension Ø 40 n	hm 45-2630.29H0.000 hm 45-2630.29J0.000		0.053 kg
Metal silver	Mushroom-head pushbutton Plastic green transparent  Mushroom-head pushbutton Plastic blue transparent  Mushroom-head pushbutton	actuator, Maintain, Find Metal  actuator, Maintain, Find Metal  actuator, Maintain, Find Metal	ront dimension Ø 40 n  ront dimension Ø 40 n  C	nm 45-2630.29H0.000	1	0.053 kg
	Mushroom-head pushbutton  Plastic green transparent  Mushroom-head pushbutton  Plastic blue transparent	actuator, Maintain, France Metal  actuator, Maintain, France Metal	ront dimension Ø 40 n  C  ront dimension Ø 40 n	hm 45-2630.29H0.000 hm 45-2630.29J0.000		0.053 kg
Metal silver	Mushroom-head pushbutton Plastic green transparent  Mushroom-head pushbutton Plastic blue transparent  Mushroom-head pushbutton	actuator, Maintain, Find Metal  actuator, Maintain, Find Metal  actuator, Maintain, Find Metal	ront dimension Ø 40 n  cont dimension Ø 40 n  cont dimension Ø 40 n  c	1 45-2630.29H0.000 1 45-2630.29J0.000 1 45-2630.29K0.000	1	0.053 kg

Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
	Mushroom-head pushbutto	n actuator, Momenta	ry, Front dimension Ø 4	10 mm	1	
Metal silver	Plastic yellow transparent	Metal	В	45-2631.29G0.000	2	0.042 kg
	Mushroom-head pushbutto	n actuator, Momenta	ry, Front dimension Ø 4	10 mm		
Metal silver	Plastic green transparent	Metal	В	45-2631.29H0.000	2	0.042 kg
Metal silver	Mushroom-head pushbutto  Plastic white transparent	n actuator, Momental	ry, Front dimension Ø 4	45-2631.29N0.000	2	0.042 kg
	Mushroom-head pushbutto	n actuator, momenta	ry/maintain, Front dime	ension Ø 40 mm		
Metal silver	Plastic red transparent	Metal	B/C	45-2632.29E0.000	3	0.051 kg
	Mushroom-head pushbutto	n actuator, momenta	ry/maintain, Front dime	ension Ø 40 mm		
Metal silver	Plastic green transparent	Metal	B/C	45-2632.29H0.000	3	0.051 kg
	Mushroom-head pushbutto	n actuator, momental	ry/momentary, Front di	mension Ø 40 mm		
Metal silver	Plastic red transparent	Metal	B/B	45-2633.29E0.000	4	0.051 kg
	Mushroom-head pushbutto	n actuator, momenta	rv/momentary. Front di	mension Ø 40 mm		
Metal silver	Plastic white transparent	Metal	B/B	45-2633.29N0.000	4	0.051 kg
	·					

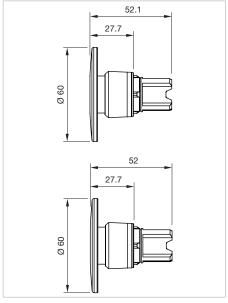
 $Switching\ action:\ B=Momentary,\ C=Maintain,\ B/B=Momentary/Momentary,\ B/C=Momentary/Maintain$ 



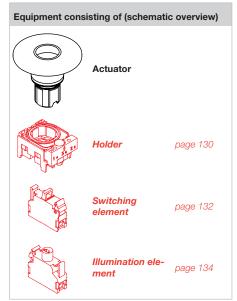
#### Mushroom-head pushbutton Ø 60 mm, illuminated, IP66, IP67, IP69K



Product can differ from the current configuration.



Dimensions [mm]



Each Part Number listed below includes all the black components shown in the 3D-drawing.

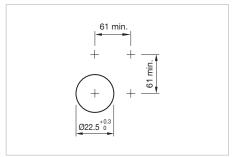
components shown in the 3D-drawing.

To obtain a complete unit, please select the red com-

ponents from the pages shown.

#### **Additional Information**

 Mounting depth incl. front plate, see chapter «drawings»

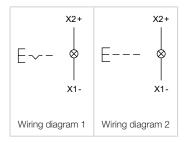


Mounting cut-outs [mm]

Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
	Mushroom-head pushbuttor					
Metal silver	Plastic red transparent	Metal	C	45-2630.2AE0.000	1	0.057 kg
	Mushroom-head pushbuttor	n actuator, Maintain, Fro	ont dimension Ø 60 m	m		
Metal silver	Mushroom-head pushbuttor  Plastic yellow transparent	n actuator, Maintain, Fro	ont dimension Ø 60 m	m 45-2630.2AG0.000	1	0.057 kg
Metal silver	-	Metal	С	45-2630.2AG0.000	1	0.057 kg

Front ring	Lens	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
	Mushroom-head pushbutton	actuator, Maintain, I	Front dimension Ø 60 n	nm		
Metal silver	Plastic blue transparent	Metal	С	45-2630.2AJ0.000	1	0.057 kg
	Mushroom-head pushbutton	actuator, Maintain, I	Front dimension Ø 60 n	nm		
Metal silver	Plastic colourless transparent	Metal	С	45-2630.2AK0.000	1	0.057 kg
				45-2631.2AF0.000	2	0.045 kg
OFF			. Fund dimension 60		2	0.045 kg
Metal silver	Mushroom-head pushbutton		•	0 mm		0.045 kg
Metal silver	Mushroom-head pushbutton  Plastic yellow transparent  Mushroom-head pushbutton	Metal	В	0 mm 45-2631.2AG0.000	2	
Metal silver  Metal silver	Plastic yellow transparent	Metal	В	0 mm 45-2631.2AG0.000		0.045 kg
	Plastic yellow transparent  Mushroom-head pushbutton	Metal  actuator, Momentar  Metal	y, Front dimension Ø 6	0 mm 45-2631.2AG0.000 0 mm 45-2631.2AH0.000	2	0.045 kç

Switching action: B = Momentary, C = Maintain



#### Keylock switch 2 positions, IP66, IP67, IP69K



Product can differ from the current configuration.

## 74.8 49.4 26.4

Dimensions [mm]

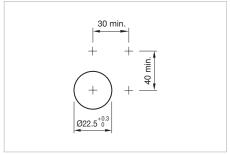
# Actuator Holder page 130 Switching element page 132

Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

#### **Additional Information**

- Mounting depth incl. front plate, see chapter «drawings»
- The standard lock: RONIS, T254
- Two keys are supplied with each key lock switch



Mounting cut-outs [mm]



Front ring	Housing material	Switching action	Switching angle	Key remove	Part No.	Wiring dia- gram	Weight
		tuator 2 positions,					1
Plastic black	Plastic	A - B	B = 45°	А	45-290K.1000.116	1	0.046 kg
		A - C	C = 90°	A	45-290J.1000.111	2	0.046 k
		A - C	C = 90°	A + C	45-290H.1000.111	2	0.046 k
		A - C	C = 90°	А	45-2925.1000.111	2	0.046 k
	Kaylock switch as	A - C			45-2925.1000.111	2	0.046
					45 0001/ 0000 440		0.0011
Metal sandgrey	Plastic	A - B	B = 45°	А	45-290K.3000.116	1	0.061 k
		A - C	C = 90°	A	45-290J.3000.111	2	0.061 k
		A - C	C = 90°	A + C	45-290H.3000.111	2	0.061 k
		A - C	C = 90°	Α	45-2925,3000,111	2	0.061 k

Front ring	Housing material	Switching action	Switching angle	Key remove	Part No.	Wiring dia- gram	Weight
	Keylock switch a	ctuator 2 positions,	Front dimension Ø	29.45 mm			
Metal silver	Keylock switch ad	etuator 2 positions,	Front dimension Ø	<b>29.45 mm</b>	45-290K.2000.116	1	0.080 kg
	-	-			45-290K.2000.116 45-290J.2000.111	1 2	0.080 kg
	-	A - B	B = 45°	А		1 2 2	

8-~	8-~~-
Wiring diagram 1	Wiring diagram 2

#### Keylock switch 3 positions, IP66, IP67, IP69K



Product can differ from the current configuration.

## 74.8 49.4 26.4

Dimensions [mm]

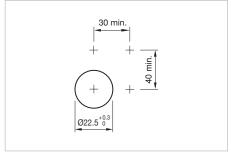
#### Equipment consisting of (schematic overview) Actuator Holder page 130 Switching page 132 element

Each Part Number listed below includes all the black components shown in the 3D-drawing.

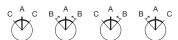
To obtain a complete unit, please select the red components from the pages shown.

#### **Additional Information**

- Mounting depth incl. front plate, see chapter «drawings»
- The standard lock: RONIS, T254
- Two keys are supplied with each key lock switch



Mounting cut-outs [mm]



Front ring	Switching action	Switching angle	Key remove	Part No.	Wiring dia- gram	Weight
	Keylock switch actuator	3 positions, Front dime	nsion Ø 29.45 mm			
Plastic black	C - A - C	C = 45°	А	45-2924.1000.113	1	0.060 kg
		C = 45°	C + A + C	45-290F.1000.113	1	0.060 k
		C = 45°	C	45-290D.1000.113	1	0.060 k
		C = 45°	C	45-2917.1000.113	1	0.060 k
		C = 45°	C+C	45-290C.1000.113	1	0.060 k
		C = 45°	C + A	45-290G.1000.113	1	0.060 k
	B - A - B	B = 45°	A	45-290Z.1000.113	2	0.060 kg
	C - A - B	C = 45°, B = 45°	A	45-2922.1000.113	3	0.060 k
		C = 45°, B = 45°	С	45-290A.1000.113	3	0.060 k
		C = 45°, B = 45°	C + A	45-290E.1000.113	3	0.060 k
	B - A - C	B = 45°, C = 45°	A	45-2911.1000.113	4	0.060 k
		B = 45°, C = 45°	С	45-290W.1000.113	4	0.060 k

Front ring	Switching action	Switching angle	Key remove	Part No.	Wiring dia- gram	Weight
	Keylock switch actuator	3 positions, Front dimer	nsion Ø 29.45 mm	, ,	J	
Metal sandgrey	C - A - C	C = 45°	A	45-2924.3000.113	1	0.061 k
		C = 45°	C + A + C	45-290F.3000.113	1	0.061 I
		C = 45°	C	45-290D.3000.113	1	0.061 k
		C = 45°	C	45-2917.3000.113	1	0.061
		C = 45°	C+C	45-290C.3000.113	1	0.061
		C = 45°	C + A	45-290G.3000.113	1	0.061
	B - A - B	B = 45°	А	45-290Z.3000.113	2	0.061
	C - A - B	C = 45°, B = 45°	А	45-2922.3000.113	3	0.061
	B - A - C	B = 45°, C = 45°	А	45-2911.3000.113	4	0.061
Metal silver	Keylock switch actuator	3 positions, Front dimer	nsion Ø 29.45 mm	45-2924.2000.113	1	0.080
		C = 45°	C + A + C	45-290F.2000.113	1	0.080 l
		C = 45°	C	45-290D.2000.113	1	0.080 l
		C = 45°	C	45-2917.2000.113	1	0.080 I
		C = 45°	C + C	45-290C.2000.113	1	0.080 I
		C = 45°	C + A	45-290G.2000.113	1	0.080 I
	B - A - B	B = 45°	А	45-290Z.2000.113	2	0.080 I
	C - A - B	C = 45°, B = 45°	А	45-2922.2000.113	3	0.080 I
		C = 45°, B = 45°	С	45-290A.2000.113	3	0.080 l
		C = 45°, B = 45°	C + A	45-290E.2000.113	3	0.080 l
	B - A - C	B = 45°, C = 45°	A	45-2911.2000.113	4	0.080 k
		B = 45°, C = 45°	A + C	45-2910.2000.113	4	0.080 l

8	8	8	8
Wiring diagram 1	Wiring diagram 2	Wiring diagram 3	Wiring diagram 4

#### Selector switch actuator 2 positions round lever, IP66, IP67, IP69K



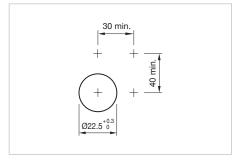
Product can differ from the current configuration.

## 28.8

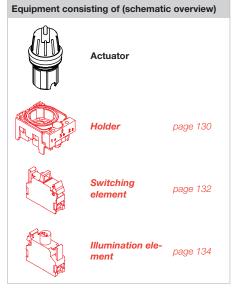
Dimensions [mm]

#### Additional Information

 Mounting depth incl. front plate, see chapter «drawings»



Mounting cut-outs [mm]



Each Part Number listed below includes all the black components shown in the 3D-drawing.

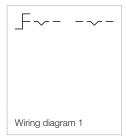
To obtain a complete unit, please select the red components from the pages shown.



Switching positions (A = Rest, B = Momentary, C = Maintained)

Lever	Front ring	Housing material	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
	Selector switch a	actuator 2 positions, l	round lever, Front (	dimension Ø 29.4	5 mm		
Plastic red	Plastic black	Plastic	A - C	C = 90°	45-2828.1E20.001	1	0.023 kg
Plastic white	Plastic black	Plastic	A - C	C = 90°	45-2828.1E90.001	1	0.023 kg
	Selector switch a	actuator 2 positions,	round lever, Front (	dimension Ø 29.4	5 mm		
Plastic red	Metal sandgrey	Plastic	A - C	C = 90°	45-2828.3E20.001	1	0.023 kg
	Selector switch a	actuator 2 positions,	round lever. Front (	dimension Ø 29.4	5 mm		
Plastic white	Metal sandgrey	Plastic	A - C	C = 90°	45-2828.3E90.001	1	0.023 kg

Switching action: A = Rest, C = Maintain



#### Selector switch actuator 2 positions short lever, IP66, IP67, IP69K



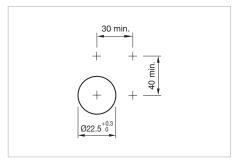
Product can differ from the current configuration.

## 54.2

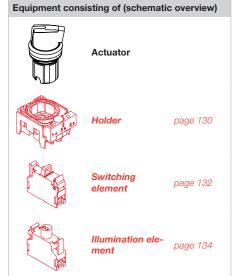
Dimensions [mm]

## Additional Information Mounting depth incl. fr «drawings»

- Mounting depth incl. front plate, see chapter «drawings»
- External diameter of the short lever 32.3 mm



Mounting cut-outs [mm]



Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



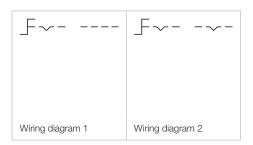


Lever	Front ring	Housing material	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
	Selector switch	actuator 2 positions,	short lever, Front d	imension Ø 29.45	i mm		
Plastic red	Plastic black	Plastic	A - B	B = 45°	45-2844.1C20.006	1	0.022 kg
		actuator 2 positions,	short lever, Front d	imension Ø 29.45	mm		
Plastic yellow	Selector switch  Plastic black	actuator 2 positions,  Plastic	A - B	B = 45°	5 mm 45-2844.1C40.006	1	0.022 kg
Plastic yellow	Plastic black		A - B	B = 45°	45-2844.1C40.006	1	0.022 kg
Plastic yellow  Plastic green	Plastic black	Plastic	A - B	B = 45°	45-2844.1C40.006	1	
	Plastic black  Selector switch  Plastic black	Plastic actuator 2 positions,	short lever, Front d	B = 45°  limension Ø 29.45  B = 45°	45-2844.1C40.006 5 mm 45-2844.1C50.006		0.022 kg

						firing dia- ram	Weight
Lever	Front ring	Housing material	Switching action	Switching angle	Part No.	≥ 5	Weight
<b>M</b>	Selector switch a	ctuator 2 positions,	short lever Front o	limension Ø 29 45	imm		
Plastic white	Plastic black	Plastic	A - B	B = 45°	45-2844.1C90.006	1	0.022 k
	Solostov switch a	etueter 2 positions	abort lover. Front o	limonoion (č. 20. 45	·		
Plastic red	Metal sandgrey	ctuator 2 positions,	A-B	B = 45°	45-2844.3C20.006	1	0.029 k
	Selector switch a	ctuator 2 positions,	short lever, Front c	limension Ø 29.45	i mm		
Plastic yellow	Metal sandgrey	Plastic	A - B	B = 45°	45-2844.3C40.006	1	0.029 k
	Selector switch a	ctuator 2 positions,	short lever, Front of	imension Ø 29.45	mm		
	Metal sandgrey  Selector switch a	Plastic ctuator 2 positions,	A-B	B = 45°	45-2844.3C50.006	1	
	Metal sandgrey  Selector switch ac  Metal sandgrey	ctuator 2 positions,	short lever, Front o	B = 45°  limension Ø 29.45  B = 45°	45-2844.3C50.006 5 mm 45-2844.3C60.006	1	
Plastic blue	Metal sandgrey  Selector switch ac  Metal sandgrey	Plastic ctuator 2 positions,	short lever, Front o	B = 45°  limension Ø 29.45  B = 45°	45-2844.3C50.006 5 mm 45-2844.3C60.006		0.029 k
Plastic green  Plastic blue  Plastic white  Plastic red	Selector switch and Metal sandgrey  Selector switch and Metal sandgrey  Metal sandgrey	ctuator 2 positions, Plastic	short lever, Front c A - B  short lever, Front c	B = 45°	45-2844.3C50.006  6 mm  45-2844.3C60.006  6 mm  45-2844.3C90.006	1	0.029 k 0.029 k 0.029 k
Plastic blue  Plastic white	Selector switch and Metal sandgrey  Selector switch and Metal sandgrey  Selector switch and Metal sandgrey  Selector switch and Metal silver	ctuator 2 positions,  Plastic  ctuator 2 positions,  Plastic  ctuator 2 positions,	short lever, Front of A - B  short lever, Front of A - B  short lever, Front of A - B	B = 45°	45-2844.3C50.006  5 mm  45-2844.3C60.006  6 mm  45-2844.3C90.006	1	0.029 k
Plastic blue  Plastic white	Selector switch and Metal sandgrey  Selector switch and Metal sandgrey  Selector switch and Metal sandgrey  Selector switch and Metal silver	ctuator 2 positions, Plastic  ctuator 2 positions, Plastic  ctuator 2 positions, Metal	short lever, Front of A - B  short lever, Front of A - B  short lever, Front of A - B	B = 45°	45-2844.3C50.006  5 mm  45-2844.3C60.006  6 mm  45-2844.3C90.006	1	0.029 k
Plastic blue  Plastic white  Plastic red	Selector switch and Metal sandgrey  Selector switch and Metal sandgrey  Selector switch and Metal silver  Selector switch and Metal silver	ctuator 2 positions, Plastic  ctuator 2 positions, Plastic  ctuator 2 positions, Metal	short lever, Front of A - B  short lever, Front of A - B  short lever, Front of A - B  short lever, Front of A - B	B = 45°	45-2844.3C50.006  5 mm  45-2844.3C90.006  6 mm  45-2844.2C20.006  6 mm  45-2844.2C40.006	1	0.029 k

Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plestic white Metal sherr Metal A - B B = 45° 45-2844,2090.006 1 0.04  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plestic black Plestic A - C C = 90° 45-2828.1020.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plestic yellow Plestic black Plestic A - C C = 90° 45-2828.1040.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plestic green Plestic black Plestic A - C C = 90° 45-2828.1050.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plestic black Plestic A - C C = 90° 45-2828.1050.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plestic black Plestic A - C C = 90° 45-2828.1050.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plestic white Plestic black Plestic A - C C = 90° 45-2828.1050.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plestic red Metal sandgrey Plestic A - C C = 90° 45-2828.1050.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm		•						
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm   Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm   Pleatic white							/iring dia- ram	
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm	.ever	Front ring	Housing material	Switching action	Switching angle	Part No.	≥ ₪	Weight
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm								
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic red Plastic black Plastic A - C C = 90° 45-2828.1C20.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic green Plastic black Plastic A - C C = 90° 45-2828.1C40.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic green Plastic black Plastic A - C C = 90° 45-2828.1C50.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic blue Plastic black Plastic A - C C = 90° 45-2828.1C50.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm			-					
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm	Plastic blue	Metal silver	Metal	A - B	B = 45°	45-2844.2C60.006	1	0.044 kg
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm		Selector switch a	actuator 2 positions,	short lever, Front o	limension Ø 29.45	i mm		
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic plack Plastic black Plastic A - C C = 90° 45-2828.1C40.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic blue Plastic black Plastic A - C C = 90° 45-2828.1C60.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm	Plastic white		-				1	0.044 kg
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic yellow Plastic black Plastic A - C C = 90° 45-2828.1C40.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic green Plastic black Plastic A - C C = 90° 45-2828.1C50.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic black Plastic A - C C = 90° 45-2828.1C60.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic white Plastic black Plastic A - C C = 90° 45-2828.1C60.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm		Selector switch a	actuator 2 positions,	short lever, Front o	limension Ø 29.45	i mm		
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic black Plastic Dack Plastic A - C C = 90° 45-2828.1C50.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic blue Plastic black Plastic A - C C = 90° 45-2828.1C50.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic blue Plastic black Plastic A - C C = 90° 45-2828.1C60.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic white Plastic black Plastic A - C C = 90° 45-2828.1C90.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic red Metal sandgrey Plastic A - C C = 90° 45-2828.3C20.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm	Plastic red	Plastic black	Plastic	A - C	C = 90°	45-2828.1C20.001	2	0.022 kg
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic black Plastic	Plastic yellow	Plastic black	Plastic	A - C	C = 90°	45-2828.1C40.001	2	0.022 kg
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic blue Plastic black Plastic A - C C = 90° 45-2828.1C60.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic white Plastic black Plastic A - C C = 90° 45-2828.1C90.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic red Metal sandgrey Plastic A - C C = 90° 45-2828.3C20.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm	Dia atia awa an		-				0	0.0001
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic black Plastic A - C C = 90° 45-2828.1C60.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic red Metal sandgrey Plastic A - C C = 90° 45-2828.3C20.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm	Plastic green	Plastic black	Plastic	A - C	C = 90°	45-2828.1C50.001	2	0.022 kg
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic white Plastic black Plastic A - C C = 90° 45-2828.1C90.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic red Metal sandgrey Plastic A - C C = 90° 45-2828.3C20.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm			actuator 2 positions,		limension Ø 29.45	5 mm		
Plastic white Plastic black Plastic A - C C = 90° 45-2828.1C90.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic red Metal sandgrey Plastic A - C C = 90° 45-2828.3C20.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm	Plastic blue	Plastic black	Plastic	A - C	C = 90°	45-2828.1C60.001	2	0.022 kg
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm  Plastic red Metal sandgrey Plastic A - C C = 90° 45-2828.3C20.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm		Selector switch a	actuator 2 positions,	short lever, Front c	limension Ø 29.45	5 mm		
Plastic red Metal sandgrey Plastic A - C C = 90° 45-2828.3C20.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm	Plastic white	Plastic black	Plastic	A - C	C = 90°	45-2828.1C90.001	2	0.022 kg
Plastic red Metal sandgrey Plastic A - C C = 90° 45-2828.3C20.001 2 0.02  Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm		Selector switch a	actuator 2 positions,	short lever, Front o	limension Ø 29.45	5 mm		
Selector switch actuator 2 positions, short lever, Front dimension Ø 29.45 mm	Plastic red						2	0.029 kg
								1.0
Plastic yellow Metal sandgrey Plastic $A - C$ $C = 90^{\circ}$ 45-2828.3C40.001 2 0.02	DI "						0	0.0001
	Plastic yellow	Metal sandgrey	Plastic	A - C	C = 90°	45-2828.3C40.001	2	0.029 kg

						dia-	
.ever	Front ring	Housing material	Switching action	Switching angle	Part No.	Wiring c	Weight
	Selector switch a	actuator 2 positions,	short lever, Front o	limension Ø 29.45	mm		
Plastic green	Metal sandgrey	Plastic	A - C	C = 90°	45-2828.3C50.001	2	0.029 k
	Selector switch a	actuator 2 positions,	short lever, Front o	limension Ø 29.45	i mm		
Plastic blue	Metal sandgrey	Plastic	A - C	C = 90°	45-2828.3C60.001	2	0.029 k
	Salactor switch	actuator 2 positions,	short lover Front s	limension Ø 20 45	imm		
Plastic red	Metal silver	Metal	A - C	C = 90°	45-2828.2C20.001	2	0.044 k
	Selector switch a	actuator 2 positions,	short lever, Front c	limension Ø 29.45	i mm		1
Plastic ambergris	Metal silver	Metal	A - C	C = 90°	45-2828.2C30.001	2	0.044 k
	Selector switch a	actuator 2 positions,	short lever, Front c	limension Ø 29.45	i mm		
Plastic green	Metal silver	Metal	A - C	C = 90°	45-2828.2C50.001	2	0.044 k
	Selector switch a	actuator 2 positions,	short lever, Front c	limension Ø 29.45	i mm		
Plastic white	Metal silver	Metal	A - C	C = 90°	45-2828.2C90.001	2	0.044 k

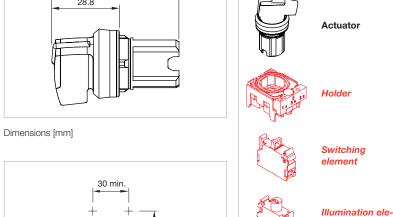


#### Selector switch 2 positions long lever, IP66, IP67, IP69K



Product can differ from the current configuration.

## 54.2 28.8



Each Part Number listed below includes all the black components shown in the 3D-drawing.

Equipment consisting of (schematic overview)

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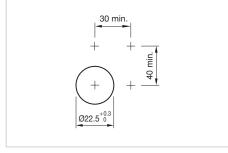
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page 134

To obtain a complete unit, please select the red components from the pages shown.

#### **Additional Information**

- Mounting depth incl. front plate, see chapter «drawings»
- External diameter of the long lever 44.8 mm

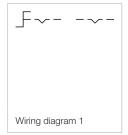


Mounting cut-outs [mm]

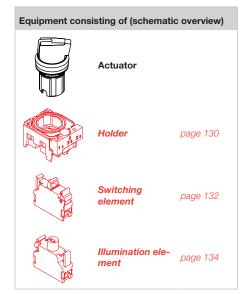


Lever	Front ring	Housing material	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
	Selector switch a	actuator 2 positions,	long lever, Front di	mension Ø 29.45	mm		
Plastic red	Plastic black	Plastic	A - C	C = 90°	45-2828.1D20.001	1	0.022 kg
1		actuator 2 positions,					
Plastic white	Selector switch a	actuator 2 positions,	long lever, Front di	mension Ø 29.45	mm 45-2828.1D90.001	1	0.022 kg
Plastic white	Plastic black	-	A - C	C = 90°	45-2828.1D90.001	1	0.022 kg
	Plastic black	Plastic	A - C	C = 90°	45-2828.1D90.001	1	
Plastic white  Plastic red	Plastic black  Selector switch a  Metal sandgrey	Plastic	A - C  long lever, Front di  A - C	C = 90°  mension Ø 29.45  C = 90°	45-2828.1D90.001  mm  45-2828.3D20.001	1	0.022 kg

Lever	Front ring	Housing material	Switching action	Switching angle	Part No.	Wirir	Weight
.ever	Frontring	nousing material	Switching action	Switching angle	Part No.	<b>  &gt; 0</b>	weight
	Selector switch	actuator 2 positions,	long lever, Front dim	ension Ø 29.45	mm		
Plastic red	Metal silver	Metal	A - C	C = 90°	45-2828.2D20.001	1	0.022 kç
	Selector switch	actuator 2 positions,	long lever, Front dim	nension Ø 29.45	mm		
Plastic yellow	Metal silver	Metal	A - C	C = 90°	45-2828.2D40.001	1	0.052 kg
	Selector switch	actuator 2 positions,	long lever, Front dim	nension Ø 29.45	mm		
Plastic green	Metal silver	Metal	A - C	C = 90°	45-2828.2D50.001	1	0.052 kg
							0.0001
Plastic blue	Metal silver	Metal	A-C	C = 90°	45-2828.2D60.001	1	0.052 kg
P		actuator 2 positions,  Metal		1		1	
P	Selector switch  Metal silver	actuator 2 positions,	long lever, Front dim	nension Ø 29.45	mm 45-2828.2D90.001		
Plastic white	Selector switch  Metal silver	actuator 2 positions,  Metal	long lever, Front dim	nension Ø 29.45	mm 45-2828.2D90.001		0.052 kç
Plastic white	Selector switch  Metal silver  Selector switch  Metal silver	actuator 2 positions,  Metal  actuator 2 positions,	long lever, Front dim A - C  long lever, Front dim A - B	nension Ø 29.45  C = 90°  nension Ø 29.45  B = 45°	mm 45-2828.2D90.001	1	0.052 kg
Plastic white  Plastic yellow	Selector switch  Metal silver  Selector switch  Metal silver	actuator 2 positions,  Metal  actuator 2 positions,  Metal	long lever, Front dim A - C  long lever, Front dim A - B	nension Ø 29.45  C = 90°  nension Ø 29.45  B = 45°	mm 45-2828.2D90.001	1	0.052 kg
Plastic white  Plastic yellow	Selector switch  Metal silver  Selector switch  Metal silver  Selector switch  Metal silver	actuator 2 positions,  Metal  actuator 2 positions,  Metal  actuator 2 positions,  Metal	long lever, Front dim A - C  long lever, Front dim A - B  long lever, Front dim A - B	nension Ø 29.45  C = 90°  nension Ø 29.45  B = 45°  nension Ø 29.45  B = 45°	mm 45-2828.2D90.001 mm 45-2844.2D40.006 mm 45-2844.2D50.006	2	0.052 kç
Plastic white  Plastic yellow  Plastic green	Selector switch  Metal silver  Selector switch  Metal silver  Selector switch  Metal silver	actuator 2 positions,  Metal  actuator 2 positions,  Metal  actuator 2 positions,	long lever, Front dim A - C  long lever, Front dim A - B  long lever, Front dim A - B	nension Ø 29.45  C = 90°  nension Ø 29.45  B = 45°  nension Ø 29.45  B = 45°	mm 45-2828.2D90.001 mm 45-2844.2D40.006 mm 45-2844.2D50.006	2	0.052 kç
Plastic blue  Plastic white  Plastic yellow  Plastic green  Plastic blue	Selector switch  Metal silver  Selector switch  Metal silver  Selector switch  Metal silver  Selector switch  Metal silver	actuator 2 positions,    Metal     actuator 2 positions,     Metal     actuator 2 positions,     Metal     actuator 2 positions,     Metal	long lever, Front dim A - C  long lever, Front dim A - B  long lever, Front dim A - B	ension Ø 29.45  C = 90°  ension Ø 29.45  B = 45°  ension Ø 29.45  B = 45°	mm 45-2844.2D40.006 mm 45-2844.2D60.006	2	0.052 kg
Plastic white  Plastic yellow  Plastic green	Selector switch  Metal silver  Selector switch  Metal silver  Selector switch  Metal silver  Selector switch  Metal silver	actuator 2 positions,    Metal     actuator 2 positions,     Metal     actuator 2 positions,     Metal     actuator 2 positions,	long lever, Front dim A - C  long lever, Front dim A - B  long lever, Front dim A - B	ension Ø 29.45  C = 90°  ension Ø 29.45  B = 45°  ension Ø 29.45  B = 45°  ension Ø 29.45  B = 45°	mm 45-2844.2D40.006 mm 45-2844.2D60.006	2	0.052 k

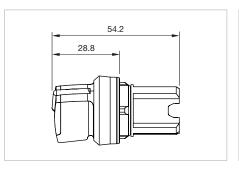


#### Selector switch 3 positions short lever, IP66, IP67, IP69K



Each Part Number listed below includes all the black components shown in the 3D-drawing.

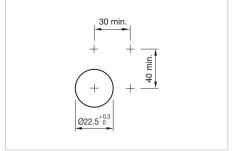
To obtain a complete unit, please select the red components from the pages shown.



Dimensions [mm]



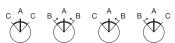
Product can differ from the current configuration.



Mounting cut-outs [mm]

#### **Additional Information**

- Mounting depth incl. front plate, see chapter «drawings»
- External diameter of the short lever 32.3 mm



Lever	Front ring	Housing material	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
	Selector switch	actuator 3 positions,		imension Ø 29.45	mm		
Plastic red	Plastic black	Plastic	C - A - C	C = 45°	45-2819.1C20.003	1	0.022 kg
Plastic yellow	Plastic black	Plastic	C - A - C	C = 45°	45-2819.1C40.003	1	0.022 kg
Plastic yellow		Plastic				1	0.022 kg
Plastic yellow  Plastic green						1	0.022 kg
	Selector switch a	actuator 3 positions,	short lever, Front d	imension <b>Ø 29.45</b>   C = 45°	mm 45-2819.1C50.003	1	

Lever	Front ring	Housing material	Switching action	Switching angle	Part No.	Wiring dia gram	Weight
<b>M</b>							
•		actuator 3 positions,			mm		
Plastic white	Plastic black	Plastic	C - A - C	C = 45°	45-2819.1C90.003	1	0.022 kg
	Salactor switch	actuator 3 positions,	short lover. Front d	limension Ø 20 45	mm		
Plastic red	Plastic black	Plastic	B - A - B	B = 45°	45-280S.1C20.003	2	0.022 kg
	, racito statis.	1 0000				_	0.022.14
	Selector switch	actuator 3 positions,	short lever, Front d	limension Ø 29.45	mm		
Plastic yellow	Plastic black	Plastic	B - A - B	B = 45°	45-280S.1C40.003	2	0.022 kg
	Selector switch	actuator 3 positions,	short lever, Front d	limension Ø 29.45	mm		
Plastic green	Plastic black	Plastic	B - A - B	B = 45°	45-280S.1C50.003	2	0.022 kg
	Selector switch	actuator 3 positions,	short lever, Front d	limension Ø 29.45	mm		
Plastic blue	Selector switch	actuator 3 positions,	short lever, Front d	limension Ø 29.45	mm 45-280S.1C60.003	2	0.022 kç
Plastic blue	Plastic black	Plastic	B - A - B	B = 45°	45-280S.1C60.003	2	0.022 kç
	Plastic black  Selector switch	Plastic actuator 3 positions,	short lever, Front d	B = 45°	45-280S.1C60.003		
Plastic blue  Plastic white	Plastic black	Plastic	B - A - B	B = 45°	45-280S.1C60.003	2	0.022 kg
	Plastic black  Selector switch	Plastic actuator 3 positions,	short lever, Front d	B = 45°  limension Ø 29.45  B = 45°	45-280S.1C60.003 mm 45-280S.1C90.003		
Plastic white	Plastic black  Selector switch	Plastic  actuator 3 positions,  Plastic	short lever, Front d	B = 45°  limension Ø 29.45  B = 45°	45-280S.1C60.003 mm 45-280S.1C90.003		0.022 kç
	Selector switch a Plastic black  Selector switch a Plastic black	Plastic  actuator 3 positions,  Plastic  actuator 3 positions,	short lever, Front do	B = 45°	mm 45-280S.1C90.003	2	
Plastic white  Plastic red	Selector switch a Plastic black  Selector switch a Plastic black	Plastic  actuator 3 positions,  Plastic  actuator 3 positions,  Plastic	short lever, Front do	B = 45°	mm 45-280S.1C90.003	2	0.022 kç
Plastic white  Plastic red	Selector switch a Plastic black  Selector switch a Plastic black  Selector switch a Plastic black	Plastic  actuator 3 positions,  Plastic  actuator 3 positions,  Plastic  actuator 3 positions,  Plastic	short lever, Front do Short lever, Front do C-A-B  short lever, Front do C-A-B	B = 45°	mm 45-2816.1C20.003 mm 45-2816.1C20.003	3	0.022 kg
Plastic white  Plastic red  Plastic yellow	Selector switch a Plastic black  Selector switch a Plastic black  Selector switch a Plastic black  Selector switch a Plastic black	actuator 3 positions, Plastic  actuator 3 positions, Plastic  actuator 3 positions, Plastic	short lever, Front of B-A-B  short lever, Front of C-A-B  short lever, Front of C-A-B	B = 45°	mm 45-2816.1C20.003 mm 45-2816.1C40.003	3	0.022 kg
Plastic white	Selector switch a Plastic black  Selector switch a Plastic black  Selector switch a Plastic black  Selector switch a Plastic black	actuator 3 positions,  Plastic  actuator 3 positions,  Plastic  actuator 3 positions,  Plastic  actuator 3 positions,  Plastic	short lever, Front of C-A-B  short lever, Front of C-A-B  short lever, Front of C-A-B	B = 45°	mm 45-2816.1C50.003 mm 45-2816.1C50.003	3	0.022 kg
Plastic white  Plastic red  Plastic yellow	Selector switch a Plastic black  Selector switch a Plastic black  Selector switch a Plastic black  Selector switch a Plastic black	actuator 3 positions, Plastic  actuator 3 positions, Plastic  actuator 3 positions, Plastic	short lever, Front of C-A-B  short lever, Front of C-A-B  short lever, Front of C-A-B	B = 45°	mm 45-2816.1C50.003 mm 45-2816.1C50.003	3	0.022 kg

Lever						ing	
Levei	Front ring	Housing material	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
	Calactay awitah a	atuatas 2 maaitiana	about layer Front o	limanaian (f. 00.45			
Diagtia white	Plastic black	retuator 3 positions,	C - A - B		45-2816.1C90.003	3	0.000 1
Plastic white	Plastic black	Plastic	G-A-B	C = 45°, B = 45°	45-2616.1C90.003	3	0.022 k
	Selector switch a	ectuator 3 positions,	short lever, Front o	limension Ø 29.45	i mm		
Plastic red	Plastic black	Plastic	B - A - C	B = 45°, C = 45°	45-280X.1C20.003	4	0.022 F
	Solootor switch o	nctuator 3 positions,	chart layer Front	limansian (% 20 4F	: mm		
Plactic vollow	Plastic black	Plastic	B-A-C	B = 45°, C = 45°	45-280X.1C40.003	4	0.0221
Plastic yellow	Flastic Diack	FIASIIC	D-A-U	D = 40 , C = 40°	45-200A. IC40.003	4	0.022 k
Plastic green	Selector switch a	Plastic	B-A-C	B = 45°, C = 45°	5 mm 45-280X.1C50.003	4	0.022 k
		nctuator 3 positions,					
Plastic blue	Plastic black	Plastic	B - A - C	B = 45°, C = 45°	45-280X.1C60.003	4	0.022 k
		ectuator 3 positions,	·				
Plastic white	Selector switch a	Plastic	B - A - C	limension Ø 29.45 B = 45°, C = 45°	5 mm 45-280X.1C90.003	4	0.022 k
	Plastic black  Selector switch a	Plastic	B-A-C	B = 45°, C = 45°	45-280X.1C90.003	4	
	Plastic black	Plastic	B - A - C	B = 45°, C = 45°	45-280X.1C90.003	1	
	Selector switch a	Plastic	short lever, Front o	B = 45°, C = 45°  dimension Ø 29.45  C = 45°	45-280X.1C90.003 5 mm 45-2819.3C20.003		0.022 k
Plastic red	Selector switch a	Plastic Plastic Plastic	short lever, Front o	B = 45°, C = 45°  dimension Ø 29.45  C = 45°	45-280X.1C90.003 5 mm 45-2819.3C20.003		0.022 F
Plastic red	Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey	Plastic  nctuator 3 positions,  Plastic	short lever, Front of C - A - C  short lever, Front of C - A - C	B = 45°, C = 45°   dimension Ø 29.45   C = 45°   C = 45°	45-280X.1C90.003  6 mm  45-2819.3C20.003  6 mm  45-2819.3C40.003	1	0.022 k
Plastic red  Plastic yellow	Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey	Plastic  Plastic  Plastic  Plastic  Plastic	short lever, Front of C - A - C  short lever, Front of C - A - C	B = 45°, C = 45°   dimension Ø 29.45   C = 45°   C = 45°	45-280X.1C90.003  6 mm  45-2819.3C20.003  6 mm  45-2819.3C40.003	1	
Plastic red  Plastic yellow	Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey	Plastic  nctuator 3 positions,  Plastic  nctuator 3 positions,  Plastic  nctuator 3 positions,  Plastic	short lever, Front of C - A - C  short lever, Front of C - A - C  short lever, Front of C - A - C	B = 45°, C = 45°     dimension Ø 29.45     C = 45°     C = 45°     dimension Ø 29.45     C = 45°     C = 45°	45-280X.1C90.003  6 mm  45-2819.3C20.003  6 mm  45-2819.3C40.003	1	0.022 F
Plastic white  Plastic red  Plastic yellow  Plastic green	Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey	Plastic  nctuator 3 positions,  Plastic  nctuator 3 positions,  Plastic	short lever, Front of C - A - C  short lever, Front of C - A - C  short lever, Front of C - A - C	B = 45°, C = 45°     dimension Ø 29.45     C = 45°     C = 45°     dimension Ø 29.45     C = 45°     C = 45°	45-280X.1C90.003  6 mm  45-2819.3C20.003  6 mm  45-2819.3C40.003	1	0.022 F

						/iring dia- ram	Weight
ever	Front ring	Housing material	Switching action	Switching angle	Part No.	> 5	Weight
		ctuator 3 positions,					I
Plastic white	Metal sandgrey	Plastic	C - A - C	C = 45°	45-2819.3C90.003	1	0.022 k
	Selector switch a	ctuator 3 positions,	short lever, Front d	mension Ø 29.45	mm		
lastic red	Metal sandgrey	Plastic	B - A - B	B = 45°	45-280S.3C20.003	2	0.022 k
	Salaatar switch a	ctuator 3 positions,	short lover Front d	monsion Ø 20 45	mm		
Plastic yellow	Metal sandgrey	Plastic	B - A - B	B = 45°	45-280S.3C40.003	2	0.022 k
	Selector switch a	ctuator 3 positions,	short lever, Front d	mension Ø 29.45	mm		
lastic green	Metal sandgrey	Plastic	B - A - B	B = 45°	45-280S.3C50.003	2	0.022 k
	Selector switch a	ctuator 3 positions,	short lever, Front d	mension Ø 29.45	mm		
Plastic blue	Selector switch a Metal sandgrey	ctuator 3 positions,	short lever, Front di	mension Ø 29.45 B = 45°	mm 45-280S.3C60.003	2	0.022 k
Plastic blue	Metal sandgrey	Plastic	B - A - B	B = 45°	45-280S.3C60.003	2	0.022 k
	Metal sandgrey		B - A - B	B = 45°	45-280S.3C60.003	2	
Plastic white	Selector switch a  Metal sandgrey	Plastic ctuator 3 positions,	short lever, Front di	B = 45°    mension Ø 29.45   B = 45°	45-280S.3C60.003 mm 45-280S.3C90.003		0.022 kg
Plastic white	Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey	ctuator 3 positions,  Plastic  ctuator 3 positions,	short lever, Front display short lever, Front display contact the short lever con	B = 45°    Mension Ø 29.45     B = 45°    Mension Ø 29.45     C = 45°, B = 45°	mm 45-280S.3C60.003  mm 45-280S.3C90.003  mm 45-2816.3C20.003	2	0.022 kį
Plastic white	Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey	ctuator 3 positions,  Plastic  ctuator 3 positions,  Plastic	short lever, Front display short lever, Front display contact the short lever con	B = 45°    Mension Ø 29.45     B = 45°    Mension Ø 29.45     C = 45°, B = 45°	mm 45-280S.3C60.003  mm 45-280S.3C90.003  mm 45-2816.3C20.003	2	0.022 k
Plastic white	Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey	ctuator 3 positions, Plastic  ctuator 3 positions, Plastic  ctuator 3 positions, Plastic	short lever, Front display a short lever, Fro	B = 45°	mm 45-2816.3C20.003 mm 45-2816.3C20.003	3	0.022 k
Plastic white  Plastic red  Plastic yellow	Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey  Selector switch a	ctuator 3 positions,  Plastic  ctuator 3 positions,  Plastic  ctuator 3 positions,  Plastic  ctuator 3 positions,	short lever, Front display short lever, Front di	B = 45°	mm 45-2816.3C20.003 mm 45-2816.3C40.003	3	0.022 kg
Plastic white  Plastic red  Plastic yellow	Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey	ctuator 3 positions, Plastic  ctuator 3 positions, Plastic  ctuator 3 positions, Plastic  ctuator 3 positions, Plastic	short lever, Front display a short lever, Fro	B = 45°	mm 45-2816.3C40.003  mm 45-2816.3C20.003  mm 45-2816.3C40.003	3	0.022 kg
Plastic blue  Plastic white  Plastic red  Plastic yellow  Plastic green	Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey  Selector switch a  Metal sandgrey	ctuator 3 positions,  Plastic  ctuator 3 positions,  Plastic  ctuator 3 positions,  Plastic  ctuator 3 positions,	short lever, Front display a short lever, Fro	B = 45°	mm 45-2816.3C40.003  mm 45-2816.3C20.003  mm 45-2816.3C40.003	3	0.022 kg 0.022 kg 0.022 kg 0.022 kg

						g	
	Format viscon		0	Ouritalian annula	Dord No.	Wiring dia- gram	W-:
Lever	Front ring	Housing material	Switching action	Switching angle	Part No.	> 0	Weight
•		ctuator 3 positions,					
Plastic white	Metal sandgrey	Plastic	C - A - B	C = 45°, B = 45°	45-2816.3C90.003	3	0.022 k
	Selector switch a	ctuator 3 positions,	short lever, Front of	dimension Ø 29.45	5 mm		
Plastic red	Metal sandgrey	Plastic	B - A - C	B = 45°, C = 45°	45-280X.3C20.003	4	0.022 k
	Calactay awitah a	atuatau 2 maaitiana	obout lovey Front o	Jimanajan (j. 20. 4)			
Diagtic valleys		ctuator 3 positions,				4	0.000 1
Plastic yellow	Metal sandgrey	Plastic	B - A - C	B = 45°, C = 45°	45-280X.3C40.003	4	0.022 k
Plastic green	Metal sandgrey	Plastic	B - A - C	B = 45°, C = 45°	45-280X.3C50.003	4	0.022 k
	Selector switch a	ctuator 3 positions,	short lever, Front o	dimension Ø 29.45	5 mm		
Plastic blue	Metal sandgrey	Plastic					
		Flastic	B - A - C	B = 45°, C = 45°	45-280X.3C60.003	4	0.022 kg
		ctuator 3 positions,		,		4	
	Selector switch a  Metal sandgrey	ctuator 3 positions,	short lever, Front o	<b>dimension Ø 29.45</b>	5 mm 45-280X.3C90.003		
Plastic white	Selector switch a  Metal sandgrey	ctuator 3 positions,	short lever, Front o	<b>dimension Ø 29.45</b>	5 mm 45-280X.3C90.003		0.022 k
Plastic white	Selector switch a  Metal sandgrey  Selector switch a  Metal silver	ctuator 3 positions, Plastic	short lever, Front of B - A - C  short lever, Front of C - A - C	dimension Ø 29.45  B = 45°, C = 45°  dimension Ø 29.45  C = 45°	5 mm 45-280X.3C90.003 5 mm 45-2819.2C20.003	4	0.022 k
Plastic white  Plastic red	Selector switch a  Metal sandgrey  Selector switch a  Metal silver	ctuator 3 positions,  Plastic  ctuator 3 positions,  Metal	short lever, Front of B - A - C  short lever, Front of C - A - C	dimension Ø 29.45  B = 45°, C = 45°  dimension Ø 29.45  C = 45°	5 mm 45-280X.3C90.003 5 mm 45-2819.2C20.003	4	0.022 k
Plastic white  Plastic red	Selector switch a  Metal sandgrey  Selector switch a  Metal silver  Selector switch a	ctuator 3 positions,  Plastic  ctuator 3 positions,  Metal  ctuator 3 positions,  Metal	short lever, Front of B-A-C  short lever, Front of C-A-C  short lever, Front of C-A-C	dimension Ø 29.48  B = 45°, C = 45°  dimension Ø 29.48  C = 45°  dimension Ø 29.48  C = 45°	5 mm 45-280X.3C90.003 5 mm 45-2819.2C20.003 6 mm 45-2819.2C40.003	1	0.022 k
Plastic white  Plastic red  Plastic red	Selector switch a  Metal sandgrey  Selector switch a  Metal silver  Selector switch a  Metal silver	ctuator 3 positions,  Plastic  ctuator 3 positions,  Metal  ctuator 3 positions,  Metal	short lever, Front of B-A-C  short lever, Front of C-A-C  short lever, Front of C-A-C  short lever, Front of C-A-C	dimension Ø 29.45  B = 45°, C = 45°  dimension Ø 29.45  C = 45°  dimension Ø 29.45  C = 45°	5 mm 45-280X.3C90.003 5 mm 45-2819.2C20.003 6 mm 45-2819.2C40.003	1	0.022 k
Plastic white  Plastic red  Plastic yellow  Plastic green	Selector switch a  Metal sandgrey  Selector switch a  Metal silver  Selector switch a  Metal silver	ctuator 3 positions,  Plastic  ctuator 3 positions,  Metal  ctuator 3 positions,  Metal  ctuator 3 positions,  Metal	short lever, Front of B-A-C  short lever, Front of C-A-C  short lever, Front of C-A-C  short lever, Front of C-A-C	dimension Ø 29.45  B = 45°, C = 45°  dimension Ø 29.45  C = 45°  dimension Ø 29.45  C = 45°	5 mm 45-280X.3C90.003 5 mm 45-2819.2C20.003 6 mm 45-2819.2C40.003	1	0.022 k
Plastic white  Plastic red  Plastic red	Selector switch a  Metal sandgrey  Selector switch a  Metal silver  Selector switch a  Metal silver	ctuator 3 positions,  Plastic  ctuator 3 positions,  Metal  ctuator 3 positions,  Metal	short lever, Front of B-A-C  short lever, Front of C-A-C  short lever, Front of C-A-C  short lever, Front of C-A-C	dimension Ø 29.45  B = 45°, C = 45°  dimension Ø 29.45  C = 45°  dimension Ø 29.45  C = 45°	5 mm 45-280X.3C90.003 5 mm 45-2819.2C20.003 6 mm 45-2819.2C40.003	1	0.022 k

						ng dia-	
_ever	Front ring	Housing material	Switching action	Switching angle	Part No.	Wiring o	Weight
	Selector switch	actuator 3 positions,	-		mm		
Plastic red	Metal silver	Metal	B - A - B	B = 45°	45-280S.2C20.003	2	0.022 kg
	Selector switch	actuator 3 positions,	short lever. Front d	imension Ø 29.45	imm		
Plastic ambergris	Metal silver	Metal	B - A - B	B = 45°	45-280S.2C30.003	2	0.022 kg
	Selector switch	actuator 3 positions,	short lever, Front d	imension Ø 29.45	i mm		
Plastic yellow	Metal silver	Metal	B - A - B	B = 45°	45-280S.2C40.003	2	0.022 kg
Plastic green	Selector switch  Metal silver	actuator 3 positions,	short lever, Front d	imension Ø 29.45	6 mm 45-280S.2C50.003	2	0.022 kç
	Selector switch	actuator 3 positions,	short lever, Front d	imension Ø 29.45	i mm		
Plastic blue	Selector switch  Metal silver	actuator 3 positions,	short lever, Front d	imension Ø 29.45	5 mm 45-280S.2C60.003	2	0.022 kç
Plastic blue	Metal silver	-	B - A - B	B = 45°	45-280S.2C60.003	2	0.022 kį
	Metal silver	Metal	B - A - B	B = 45°	45-280S.2C60.003	2	,
	Metal silver  Selector switch  Metal silver	Metal actuator 3 positions,	short lever, Front d	B = 45°   imension Ø 29.45   B = 45°	45-280S.2C60.003 mm 45-280S.2C90.003		
Plastic white	Metal silver  Selector switch  Metal silver	Metal  Metal	short lever, Front d	B = 45°   imension Ø 29.45   B = 45°	45-280S.2C60.003 mm 45-280S.2C90.003		0.022 kg
Plastic white	Selector switch  Metal silver  Selector switch  Metal silver	actuator 3 positions,  Metal  actuator 3 positions,  Metal	short lever, Front d  B - A - B  short lever, Front d  C - A - B	B = 45°   imension Ø 29.45   B = 45°   imension Ø 29.45   C = 45°, B = 45°	45-280S.2C60.003  mm  45-280S.2C90.003	2	0.022 kį
Plastic white	Selector switch  Metal silver  Selector switch  Metal silver	actuator 3 positions,  Metal  actuator 3 positions,	short lever, Front d  B - A - B  short lever, Front d  C - A - B	B = 45°	45-280S.2C60.003  mm  45-280S.2C90.003	2	0.022 kg
Plastic white	Selector switch  Metal silver  Selector switch  Metal silver	actuator 3 positions,  Metal  actuator 3 positions,  Metal  actuator 3 positions,	short lever, Front d  B - A - B  short lever, Front d  C - A - B  short lever, Front d	B = 45°   imension Ø 29.45   B = 45°   imension Ø 29.45   C = 45°, B = 45°	45-280S.2C60.003  mm  45-280S.2C90.003  mm  45-2816.2C20.003	3	0.022 kg
Plastic white  Plastic red	Selector switch  Metal silver  Selector switch  Metal silver  Selector switch  Metal silver	actuator 3 positions,  Metal  actuator 3 positions,  Metal  actuator 3 positions,	short lever, Front d B-A-B  short lever, Front d C-A-B  short lever, Front d C-A-B	B = 45°	45-280S.2C60.003  mm  45-280S.2C90.003  mm  45-2816.2C20.003	3	0.022 kį
Plastic blue  Plastic white  Plastic red  Plastic green	Selector switch  Metal silver  Selector switch  Metal silver  Selector switch  Metal silver	actuator 3 positions,  Metal  actuator 3 positions,  Metal  actuator 3 positions,  Metal	short lever, Front d B-A-B  short lever, Front d C-A-B  short lever, Front d C-A-B	B = 45°	45-280S.2C60.003  mm  45-280S.2C90.003  mm  45-2816.2C20.003	3	0.022 kg

F~~-	F~-	F~~-	F~-
Wiring diagram 1	Wiring diagram 2	Wiring diagram 3	Wiring diagram 4

#### Selector switch 3 positions long lever, IP66, IP67, IP69K



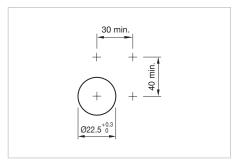
Product can differ from the current configuration.

## 54.2

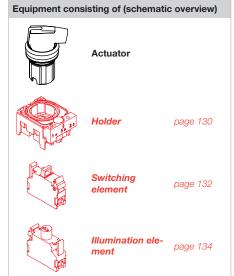
Dimensions [mm]

### Additional InformationMounting depth incl. fr

- Mounting depth incl. front plate, see chapter «drawings»
- External diameter of the long lever 44.8 mm

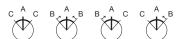


Mounting cut-outs [mm]



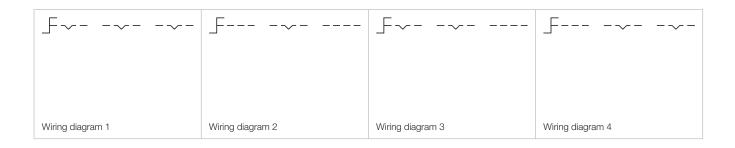
Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.



Lever	Front ring	Housing material	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
	Selector switch	actuator 3 positions,	long lever, Front di	imension Ø 29.45	mm		
Plastic red	Metal silver	Metal	C - A - C	C = 45°	45-2819.2D20.003	1	0.022 kg
Plastic green	Metal silver	Metal	C - A - C	C = 45°	45-2819.2D50.003	4	
5 5					43-2019.2D30.003	'	0.022 kg
	Salastar switch	actuator 2 positions	long lover Front di	imancian (f 20.45		1	0.022 kg
Plastic white	Selector switch	actuator 3 positions,	long lever, Front d	imension Ø 29.45		1	0.022 kg
JO PE	Metal silver		C - A - C	C = 45°	mm 45-2819.2D90.003	1	

Lever	Front ring	Housing material	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
	Selector switch	actuator 3 positions,	long lever, Front di	imension Ø 29.45	mm		
Plastic green	Metal silver	Metal	B - A - B	B = 45°	45-280S.2D50.003	2	0.022 k
Plastic white	Metal silver	actuator 3 positions,  Metal	B-A-B	B = 45°	45-280S.2D90.003	2	0.022
Plastic red	Selector switch	actuator 3 positions,	long lever, Front di	imension Ø 29.45 C = 45°, B = 45°	mm 45-2816.2D20.003	3	0.022
	Selector switch	actuator 3 positions,	long lever, Front di	imension Ø 29.45	mm		
Plastic white	Metal silver	Metal	C - A - B	C = 45°, B = 45°	45-2816.2D90.003	3	0.022 k
	Selector switch	actuator 3 positions,	long lever, Front di	imension Ø 29.45	mm		
Plastic red	Metal silver	Metal	B - A - C	B = 45°, C = 45°	45-280X.2D20.003	4	0.022 k
		actuator 3 positions,					0.000
Plastic white	Metal silver	Metal	B - A - C	B = 45°, C = 45°	45-280X.2D90.003	4	0.022



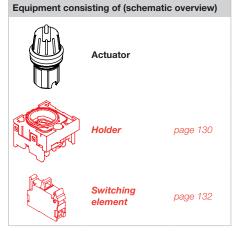
#### Selector switch actuator 4 positions round lever, IP66, IP67, IP69K



Product can differ from the current configuration.

## 54.2

Dimensions [mm]

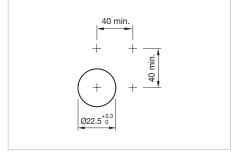


Each Part Number listed below includes all the black components shown in the 3D-drawing.

To obtain a complete unit, please select the red components from the pages shown.

#### **Additional Information**

- Use only with holder for 4 elements
- Mounting depth incl. front plate, see chapter «drawings»



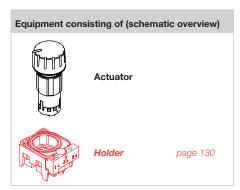
Mounting cut-outs [mm]

Lever	Front ring	Housing material	Switching action	Switching angle	Part No.	Wiring dia- gram	Weight
	Selector switch a	actuator 4 positions,	round lever, Front o	dimension Ø 29.4	5 mm		
Plastic white	Plastic black	Plastic	С	C = 90°	45-2845.1E90.002	1	0.023 kg
	Selector switch a	actuator 4 positions,	round lever, Front of	dimension Ø 29.4	5 mm		
Plastic white	Selector switch a	actuator 4 positions,	round lever, Front o	dimension Ø 29.45	5 mm 45-2845.3E90.002	1	0.023 kg
Plastic white	Metal sandgrey	•	С	C = 90°	45-2845.3E90.002	1	0.023 kg

Switching action: C = Maintain

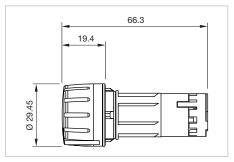


#### Potentiometer, IP66, IP67, IP69K



Each Part Number listed below includes all the black components shown in the 3D-drawing.

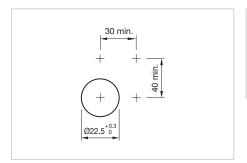
To obtain a complete unit, please select the red components from the pages shown.



Dimensions [mm]



Product can differ from the current configuration.



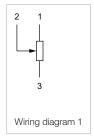
Mounting cut-outs [mm]

#### **Additional Information**

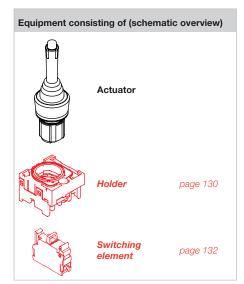
- Power 0.5 W
- Slewing range 275° ±2°
- Mounting depth incl. front plate, see chapter «drawings»

Product attribute	Front ring	Housing material	Part No.	Compo- nent layout	Wiring dia- gram	Weight
Potentiomet	er, Front dimension Ø	29.45 mm				
Resistor 1 kOhm / linear, series E3	Plastic black	Plastic	45-2P03.1E10.000	1	1	0.03 kg
Resistor 4.7 kOhm / linear, series E3	Plastic black	Plastic	45-2P04.1E10.000	1	1	0.03 kg
Resistor 10 kOhm / linear, series E3	Plastic black	Plastic	45-2P02.1E10.000	1	1	0.03 kç
Resistor 47 kOhm / linear, series E3	Plastic black	Plastic	45-2P06.1E10.000	1	1	0.03 kg
Resistor 100 kOhm / linear, series E3	Plastic black	Plastic	45-2P01.1E10.000	1	1	0.03 kç
Resistor 470 kOhm / linear, series E3	Plastic black	Plastic	45-2P05.1E10.000	1	1	0.03 kç
Potentiomet Resistor 1 kOhm / linear, series E3	er, Front dimension Ø  Metal silver	<b>29.45 mm</b>	45-2P03.2E10.000	1	1	0.03 kg
Resistor 4.7 kOhm / linear, series E3	Metal silver	Metal	45-2P04.2E10.000	1	1	0.03 kg
Resistor 10 kOhm / linear, series E3	Metal silver	Metal	45-2P02.2E10.000	1	1	0.03 kg
Resistor 47 kOhm / linear, series E3	Metal silver	Metal	45-2P06.2E10.000	1	1	0.03 kç
Resistor 100 kOhm / linear, series E3	Metal silver	Metal	45-2P01.2E10.000	1	1	0.03 kg
Resistor 470 kOhm / linear, series E3	Metal silver	Metal	45-2P05.2E10.000	1	1	0.03 kg

The component layouts you will find from Page 144

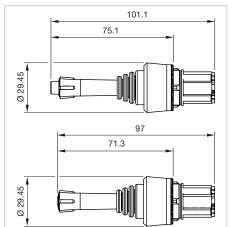


#### Toggle stick, IP 65, IP 67



Each Part Number listed below includes all the black components shown in the 3D-drawing.

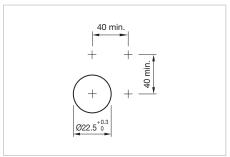
To obtain a complete unit, please select the red components from the pages shown.





Product can differ from the current configuration.

Dimensions [mm]



Mounting depth incl. front plate, see chapter «drawings»

Use only with holder for 4 elements

Additional Information

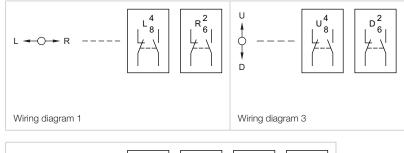
#### Mounting cut-outs [mm]

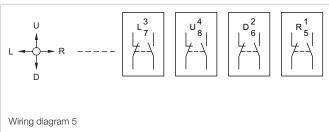
Product attribute	Front ring	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
Toggle s	stick, Front dimensior	n Ø 29.45 mm				
2 positions (L-R), lockable	Plastic black	Plastic	В	45-2F13.1010.000	1	0.035 kg
2 positions (U-D), lockable	Plastic black	Plastic	В	45-2F40.1010.000	3	0.035 kg
4-positions, lockable	Plastic black	Plastic	В	45-2F14.1010.000	5	0.035 kg
Toggle s 2 positions (L-R), lockable	stick, Front dimension  Metal sandgrey	n <b>Ø 29.45 mm</b> Plastic	В	45-2F13.3010.000	1	0.042 kg
	•		B B	45-2F13.3010.000 45-2F40.3010.000	1 3	0.042 kg 0.042 kg
2 positions (L-R), lockable	Metal sandgrey	Plastic			ļ.,	0.042 kg
2 positions (L-R), lockable 2 positions (U-D), lockable 4-positions, lockable  Toggle s	Metal sandgrey  Metal sandgrey  Metal sandgrey  Metal sandgrey	Plastic Plastic Plastic Plastic	B B	45-2F40.3010.000 45-2F14.3010.000	3 5	0.042 kg
2 positions (L-R), lockable 2 positions (U-D), lockable 4-positions, lockable  Toggle s 2 positions (L-R), lockable	Metal sandgrey  Metal sandgrey  Metal sandgrey  Metal sandgrey  Metal sandgrey  Metal sandgrey	Plastic Plastic Plastic  Plastic  Metal	B B	45-2F40.3010.000 45-2F14.3010.000 45-2F13.2010.000	3 5	0.042 kg 0.042 kg
2 positions (L-R), lockable 2 positions (U-D), lockable 4-positions, lockable  Toggle s	Metal sandgrey  Metal sandgrey  Metal sandgrey  Metal sandgrey	Plastic Plastic Plastic Plastic	B B	45-2F40.3010.000 45-2F14.3010.000	3 5	0.042 kg

# 45 Raised design

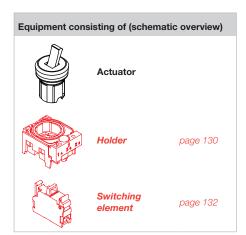
Product attribute	Front ring	Housing material	Switching action	Part No.	Wiring dia- gram	Weight
	oggle stick, Front dimension					
2 positions (L-R)	Plastic black	Plastic	В	45-2F0T.1010.000	1	0.035 kg
2 positions (U-D)	Plastic black	Plastic	В	45-2F38.1010.000	3	0.035 kg
4 positions	Plastic black	Plastic	В	45-2F0V.1010.000	5	0.035 kg
				'		
	oggle stick, Front dimension  Metal sandgrey	n <b>Ø 29.45 mm</b> Plastic	В	45-2F0T.3010.000	1	0.042 kg
2 positions (L-R)			ВВ	45-2F0T.3010.000 45-2F38.3010.000	1 3	0.042 kg
	Metal sandgrey	Plastic				
2 positions (L-R) 2 positions (U-D) 4 positions	Metal sandgrey  Metal sandgrey	Plastic Plastic Plastic	В	45-2F38.3010.000	3	0.042 kg

Switching action: B = Momentary



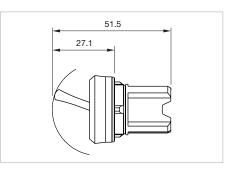


# Toggle switches, IP66, IP67, IP69K



Each Part Number listed below includes all the black components shown in the 3D-drawing.

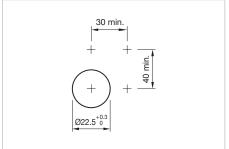
To obtain a complete unit, please select the red components from the pages shown.



Dimensions [mm]



Product can differ from the current configuration.



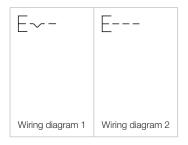
Mounting cut-outs [mm]

#### **Additional Information**

Mounting depth incl. front plate, see chapter «drawings»

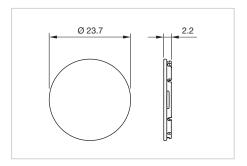
Product attribute	Lever	Front ring	Switching action	Part No.	Wiring dia- gram	Weight
To	oggle switch actuator	, Front dimension Ø 29.45	5 mm			
reset from above	Plastic black	Plastic black	С	45-2N42.1010.000	1	0.015 kg
	Plastic black	Plastic black	В	45-2N39.1010.000	2	0.015 kg
						ı
To	oggle switch actuator	, Front dimension Ø 29.4	5 mm			J
	oggle switch actuator	, Front dimension Ø 29.48  Metal sandgrey	5 mm	45-2N42.3010.000	1	0.020 kg
reset from above				45-2N42.3010.000 45-2N39.3010.000	1 2	
reset from above	Plastic black Plastic black	Metal sandgrey	В		1 2	
reset from above	Plastic black Plastic black	Metal sandgrey  Metal sandgrey	В		1 2	0.020 kg 0.020 kg

Switching action: B = Momentary, C = Maintain



# Front

# Lens plastic round flat

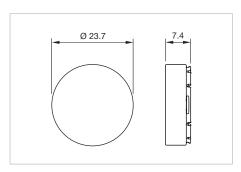


Dimensions [mm]

Dimension		Lens	Part No.	Weight
				'
Ø 23.7 mm	ens	Plastic black	45-553.0100	0.001 kg
	ens			
Ø 23.7 mm		Plastic red	45-553.0200	0.001 kg
	ens			
Ø 23.7 mm		Plastic yellow	45-553.0400	0.001 kg
	ens			
ð 23.7 mm		Plastic green	45-553.0500	0.001 kg
	ens			
Ø 23.7 mm		Plastic blue	45-553.0600	0.001 kg
Ø 23.7 mm	ens	Plastic white	45-553.0900	0.001 kg
220.7 11111		1 ROOG WING	000.0000	0.001 Ng
L	ens	Plastic red transparent		0.001 kg

Lens	Part No.	Weight
Plastic amber transparent	45-553.0F00	0.001 kg
Plastic yellow transparent	45-553.0G00	0.001 kg
Plastic green transparent	45-553.0H00	0.001 kg
Plastic blue transparent	45-553.0J00	0.001 kg
Plastic white transparent	45-553.0K00	0.001 kg
Plastic white transparent	45-553.0K00	0.001 kg
	Plastic amber transparent  Plastic yellow transparent  Plastic green transparent	Plastic amber transparent  45-553.0F00  Plastic yellow transparent  45-553.0G00  Plastic green transparent  45-553.0H00

# Lens plastic round encreased



Dimensions [mm]

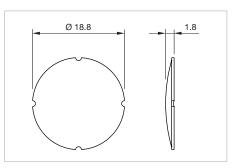
Dimension	Lens	Part No.	Weight
Lens			
Ø 23.7 mm	Plastic black	45-552.0100	0.002 kg

Dimension		Lens	Part No.	Weight
	Lens			
Ø 23.7 mm	Lelis	Plastic red	45-552.0200	0.002 kg
	Lens			
Ø 23.7 mm	Lens	Plastic yellow	45-552.0400	0.002 kg
	Lens	ı	l	
ð 23.7 mm		Plastic green	45-552.0500	0.002 kg
Ø 23.7 mm	Lens	Plastic red transparent	45-552.0E00	0.002 kg
	Lens			
Ø 23.7 mm		Plastic yellow transparent	45-552.0G00	0.002 kg
0	Lens			
Ø 23.7 mm		Plastic green transparent	45-552.0H00	0.002 kg
	Lens			
Ø 23.7 mm		Plastic blue transparent	45-552.0J00	0.002 kg
	Lone	l	l	
0.00.7 mm	Lens	Plactic colourless transporent	45-552.0K00	0.000 1/5
Ø 23.7 mm		Plastic colourless transparent	45-552.UK00	0.002 kg

#### Marking plate

#### **Additional Information**

- For pushbutton illuminated
- Markable, see «Marking»
- To change the text plate, the push cap is removed with a screwdriver and then snapped back



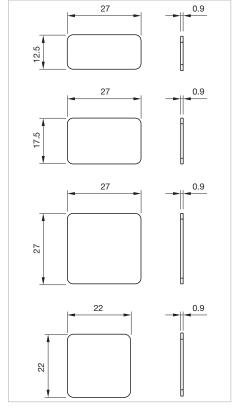
Dimensions [mm]

Marking plate illumination	Marking plate	Part No.	Weight
Marking plate			
illuminative	white translucent	45-563.0K00	0.001 kg

# Legend plate

#### **Additional Information**

Markable, see «Marking»



Dimensions [mm]

Product attribute	Dimension	Material	Colour	Part No.	Weight
Legend	olate				
For sticking or snapping in place	27 x 12.5 mm	Plastic	black	45-573.1102	0.001 kg
For sticking or snapping in place	27 x 12.5 mm	Plastic	red	45-573.1202	0.001 kg
For sticking or snapping in place	27 x 12.5 mm	Plastic	silver	45-573.1A02	0.001 kg
For sticking or snapping in place	27 x 17.5 mm	Plastic	black	45-573.1103	0.001 kg
For sticking or snapping in place	27 x 17.5 mm	Plastic	silver	45-573.1A03	0.001 kg
Legend   For sticking or snapping in place	<b>plate</b>   27 × 27 mm	Plastic	black	45-573.1105	0.001 kg
For sticking or snapping in place	27 x 27 mm	Plastic	silver	45-573.1A05	0.001 kg
		Fiasic	Silver	45-575.TAU5	0.001 kg
Legend		1			
For sticking or snapping in place	22 x 22 mm	Plastic	silver	45-573.1A04	0.001 kg
For sticking	22 x 22 mm	Plastic	black	45-573.1104	0.001 kg

# **Emergency-stop legend**

#### **Additional Information**

• Front panel thickness 3 mm max.

Product attribute	Dimension	Mounting cut-out	Marking	Colour	Part No.	Weight
Todact attribute	Dimension	Woulding Cut-out	Warking	Coloui	Fait No.	Weight
	<b>-</b>	d				
	Emergency-stop I	Ø 22.5 mm	without marking	yellow	45-50K.1407	0.005 kg
	Ø 43 X T IIIIII	Ø 22.3 IIIII	Without marking	yellow	43-30K.1407	0.003 kg
	Emergency-stop I					
-	Ø 75 x 1 mm	Ø 22.5 mm	without marking	yellow	45-50K.1408	0.010 kg
	Emergency-stop l	egend				
self-adhesive	Ø 75 x 1 mm	Ø 23 mm	without marking	yellow	45-50J.1400	0.004 kg
AH-104						
	Emanganay atan I	amand				
self-adhesive	Emergency-stop I	Ø 23 mm	NOT - HALT	yellow	45-50J.140Q	0.004 kg
John danioonvo	S 70 X T IIIII	D 20 11111	THO I TIME!	yonovv	10 00011 10 0	0.00 T Ng
Margaret 27						
O						
	Emergency-stop l	egend				
self-adhesive	Ø 75 x 1 mm	Ø 23 mm	EMERGENCY STOP	yellow	45-50J.140S	0.004 kg
104-TOH						
20						
self-adhesive	Emergency-stop I	Ø 23 mm	NOT - AUS	yellow	45-50J.140P	0.004 kg
Sell-adi lesive	Ø 75 X T TIIIT	9 20 111111	NOT - A00	yellow	45-300.1401	0.004 Kg
THE THEORY						
Q 2						
	Emergency-stop l	egend				
self-adhesive	Ø 75 x 1 mm	Ø 23 mm	ARRET D'URGENCE	yellow	45-50J.140T	0.004 kg
ENERGE.						
The state of the s						
	<b>-</b>	d				
	Emergency-stop I		EMEDOENIZA		45 50 1 4 40 1/	0.0041
self-adhesive	Ø 75 x 1 mm	Ø 23 mm	EMERGENZA	yellow	45-50J.140V	0.004 kg
Nods too						
	Emergency-stop l	egend				
self-adhesive	Ø 75 x 1 mm	Ø 23 mm	NODSTOP	yellow	45-50J.140W	0.004 kg

Product attribute	Dimension	Mounting cut-out	Marking	Colour	Part No.	Weight
	Emergency-stop l	legend				
elf-adhesive	Ø 75 x 1 mm	Ø 23 mm	紧急停止	yellow	45-50J.140X	0.004 kg
Constant of the Constant of th	Emergency-stop l	egend				
elf-adhesive	Ø 75 x 1 mm	Ø 23 mm	NOT-HALT EMERGENCY STOP EMERGENZA EMERGENCIA	yellow	45-50J.140Z	0.004 kg
	Emergency-stop l	egend				
self-adhesive	150 x 38 mm	Ø 23 mm	without marking	yellow	45-561.1400	0.004 kg
5. 5.	Emergency-stop I	egend				
self-adhesive	150 x 38 mm	Ø 23 mm	NOT - AUS	yellow	45-561.140P	0.004 kg
	Emergency-stop l	egend				
self-adhesive	150 x 38 mm	Ø 23 mm	without marking	yellow	45-562.1400	0.004 kg

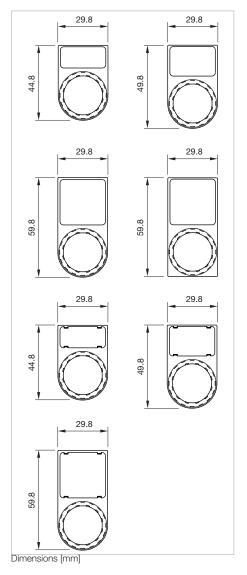
# Legend plate for potentiometer

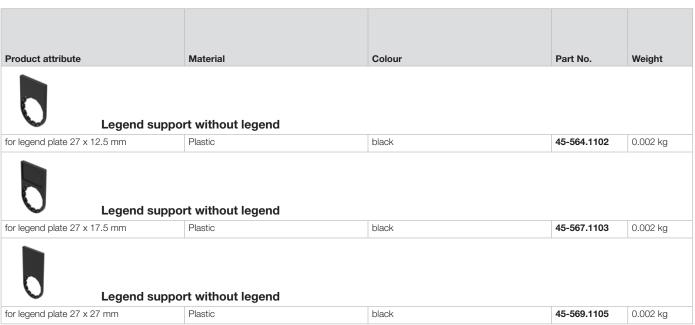
Dimension	Material	Colour	Part No.	Weight
<b>Q</b> Legend	plate for potentiometer			
Ø 40 mm	Plastic	black	45-538.1100	0.001 kg

#### Legend support without legend

#### **Additional Information**

• For sticking or snapping in place



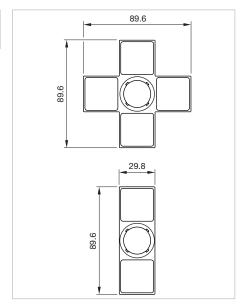


Product attribute	Material	Colour	Part No.	Weight
Legend supp	oort without legend			
for legend plate 27 x 27 mm	Plastic	black	45-570.1105	0.002 kg
	Plastic	black	45-564.1110	0.002 kg
Legend supplifor legend plate 27 x 12.5 mm	port without legend	black	45-564.1110	0.002 kg
	port without legend		47-70-1111	Ta 222 t
for legend plate 27 x 17.5 mm	Plastic	black	45-567.1111	0.002 kg
Legend supp	port without legend			
for legend plate 27 x 27 mm	Plastic	black	45-569.1112	0.002 kg

# Legend support without legend for toggle stick

#### **Additional Information**

For sticking or snapping in place



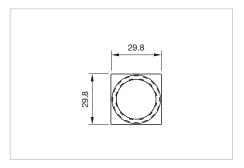
Dimensions [mm]

Product attribute	Material	Colour	Part No.	Weight
	support without legend for t	oggle stick		
Legena	ouppoit without logolia for t			
for legend plate 27 x 27 mm	Plastic	black	45-571.1105	0.002 kg
for legend plate 27 x 27 mm		black	45-571.1105	0.002 kg

# Single frame, IP66, IP67, IP69K

#### **Additional Information**

For design square



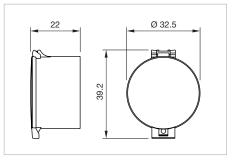
Dimensions [mm]

Dimension	Material	Colour	Part No.	Weight			
Single frame for design square							
29.8 x 29.8 mm	Plastic	black	45-558.0000	0.001 kg			

#### **Protective cover, IP66, IP67**

#### **Additional Information**

- Hinged, with means for sealing
- Please note that bigger minimum distances are necessary.



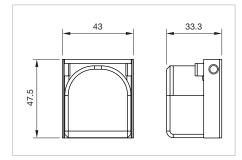
Dimensions [mm]

Material	Colour	Optics	Part No.	Weight			
Protective c	<b>DVer</b> black	opaque	45-555.1100	0.012 kg			
Protective cover							
Plastic	colourless	transparent	45-555.1K00	0.012 kg			

# Protective cap

Product attribute	Front protection	Material	Colour	Optics	Part No.	Weight		
Protective of	ap for pushbutto	on						
for lens raised above bezel	IP66, IP67	Silicone	colourless	transparent	45-544.1K00	0.008 kg		
for lens flush	IP66, IP67	Silicone	colourless	transparent	45-545.1K00	0.008 kg		
Protective cap for twin pushbutton								
for lens raised above bezel	IP66, IP67	Silicone	colourless	transparent	45-547.1K00	0.011 kg		
for lens flush	IP66, IP67	Silicone	colourless	transparent	45-548.1K00	0.011 kg		
	ap for Emergeno	-	sala: właca	tvananavant	45 540 4V00	0.015 kg		
for lens raised above bezel	IP66, IP67	Silicone	colourless	transparent	45-542.1K00	0.015 kg		
	Protective cap for Mushroom-head pushbutton							
for Mushroom-head pushbutton Ø 40	IP66, IP67	Silicone	colourless	transparent	45-543.1K00	0.006 kg		
Protective cap for selector switch								
for lever switch, short lever	IP66, IP67	Silicone	colourless	transparent	45-546.1K00	0.006 kg		
Protective	ap for keylock s	witch						
for keylock switch	IP66, IP67	Silicone	colourless	transparent	45-50F.1100	0.006 kg		
.s. Asylook owiton	50, 11 01	500110		a a loparont	.5 55111100	2.000 Ng		

# Cover, IP66, IP67, IP69K



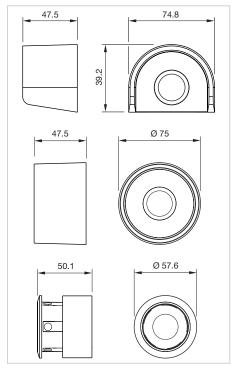
Dimensions [mm]

Product attribute	Material	Colour	Optics	Part No.	Weight
Cover for locking device					
For pushbuttons, selector switches with round or short lever	Metall/Kunststoff	silver/colourless	transparent	45-529.2100	0.043 kg

#### E-stop protective shroud

#### **Additional Information**

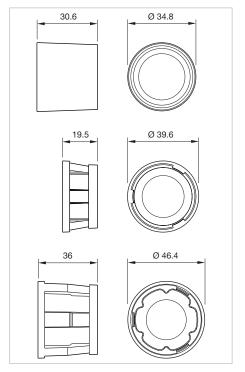
The protection shroud is not suitable for a proper use of emergency-stop. It can obstruct a sponta-neous operation of the emergency-stop



Dimensions [mm]

Product attribute	Material	Colour	Part No.	Weight
E-stop protective shrough	I			
non-illuminative	Plastic	yellow	45-549.1400	0.052 kg
E-stop protective shrough	ı			
non-illuminative	Plastic	grey	45-549.1800	0.052 kg
E-stop protective shrough	ı			
non-illuminative	Plastic	yellow	45-550.1400	0.044 kg
E-stop protective shrough	1			
for Emergency stop switch Ø 40 mm, for 5 padlocks	Metal	yellow	45-539.2400	0.162 kg
for Emergency stop switch Ø 40 mm, for 5 padlocks  E-stop protective shrouce		yellow	45-539.2400	0.162 kg

# Protective shroud, IP66, IP67, IP69K



Dimensions [mm]

Product attribute	Material	Colour	Part No.	Weight
Protective shro				
for pushbutton, selector switch	Plastic	black	45-50N.1100	0.010 kg
Protective shre	oud			
Protective shro	<b>oud</b> Metal	silver	45-50Q.2100	0.020 kg
	Metal	silver	45-50Q.2100	0.020 kg

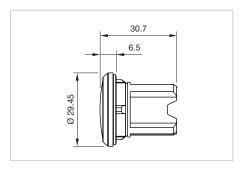
# Sun collar

Product attribute	Material	Colour	Part No.	Weight
Sun collar				
for pushbutton illuminated	Plastic	black	45-560.1100	0.010 kg

# Blind plug, IP66, IP67, IP69K

#### **Additional Information**

• Use with plastic or metal holder



Dimensions [mm]

Mounting cut-out		Material	Colour	Part No.	Weight
Wounting Cut-out		Waterial	Coloui	rait No.	Weight
	Blind plug				
Ø 22.5 mm		Plastic	black	45-506.1100	0.010 kg
	Blind plug				
Ø 22.5 mm	Blind plug	Metal sandgrey	silver	45-506.3A00	0.008 kg
Ø 22.5 mm	Blind plug Blind plug	Metal sandgrey	silver	45-506.3A00	0.008 kg

# Locking device, IP66, IP67, IP69K

Product attribute		Dimension	Mat	terial	Colour	Part No.	Weight
Locking device							, ,
or pushbutton with lens raised		47 x 43.1 x 25.1 r	mm Met	al	silver	45-531.2100	0.047 kg
Locking device							
for pushbutton with lens flat		47 x 43.1 x 25.1 r		al	silver	45-532.2100	0.047 kg
or mushroom-head pushbutton Ø 30 mm or	Ø 40 mm	47 x 43.1 x 25.1 r	mm Met	al	silver	45-530.2100	0.047 kg
for selector switch in position left		47 x 47.1 x 21.1 r	mm Met	al	silver	45-534.2100	0.047 kg
Locking device							
for selector switch in position center		47 x 47.1 x 21.1 r	mm Met	al	silver	45-533.2100	0.047 kg
Locking device							
for selector switch in position right	47 x 47.	1 x 21.1 mm	Metal		silver	45-536.2100	0.047 kg
Locking device							
for selector switch in position center and right	47 x 47.	1 x 21.1 mm	Metal		silver	45-535.2100	0.047 kg
Locking device							
for selector switch in position center and left		1 x 21.1 mm	Metal		silver	45-537.2100	0.047 kg

# Spare key

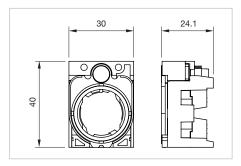
#### **Additional Information**

• For standard lock RONIS T254

Product attribute	Part No.	Weight
Spare key		
2 spare keys	45-522.0900	0.007 kg

# Rear side

# **Holder for 3 elements**

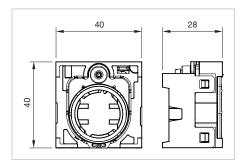


Dimensions [mm]

Product attribute  Holder for 3 elements	Material	Part No.	Compo- nent layout	Weight
for all buttons except selector switch 4 positions and toggle stick	Plastic	45-2300.1000.000	2	0.028 kg
Holder for 3 elements				
for all buttons except selector switch 4 positions and toggle stick	Metal	45-2300.2000.000	2	0.046 kg

The component layouts you will find from Page 145

# **Holder for 4 elements**

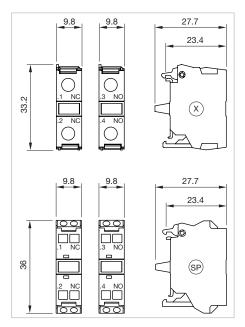


Dimensions [mm]

Product attribute	Material	Part No.	Compo- nent layout	Weight
Holder for 4 elements for selector switch 4 positions and toggle stick	Plastic	45-2400.1000.000	3	0.028 kg
Holder for 4 elements				
for selector switch 4 positions and toggle stick	Metal	45-2400.2000.000	3	0.046 kg

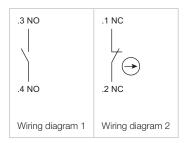
The component layouts you will find from Page 145

#### **Switching element front mounting**

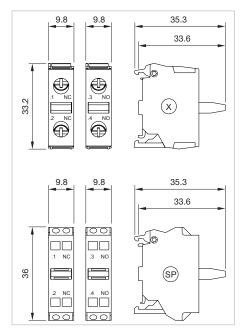


Dimensions [mm] X = Screw terminal, SP = Spring-type terminal

Switching current	Contacts	Contact material	Terminal	Part No.	Wiring dia- gram	Weight
	Switching element					
10 A	1 NO	Silver	Screw	45-311.1Z10	1	0.010 kg
10 A	1 NC	Silver	Screw	45-312.1 <b>Z</b> 10	2	0.010 kg
	Switching element					
10 A	1 NO	Silver	Spring-type terminal	45-311.1Z40	1	0.010 kg
10 A	1 NC	Silver	Spring-type terminal	45-312.1 <b>Z</b> 40	2	0.010 kg

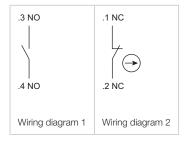


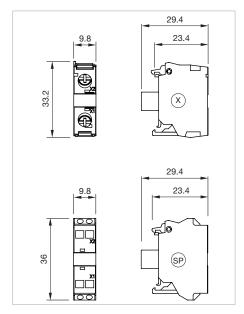
#### Switching element base mounting



Dimensions [mm] X = Screw terminal, SP = Spring-type terminal

Switching current	Contacts	Contact material	Terminal	Part No.	Wiring dia- gram Meight
Switching current	Contacts	Contact material	Terminal	Part NO.	> 0/ Weight
	Switching element				
10 A	1 NO	Silver	Screw	45-311.2Z10	1 0.010 kg
10 A	Switching element	Silver	Screw	45-312.2 <b>Z</b> 10	2 0.010 kg
10 A	1 NC	Silver	Screw	45-312.2 <b>Z</b> 10	2 0.010 kg
	Switching element				
10 A	Switching element	Silver	Spring-type terminal	45-311.2 <b>Z</b> 40	1 0.010 kg
10 A		Silver	Spring-type terminal	45-311.2 <b>Z</b> 40	1 0.010 kg





Dimensions [mm] X = Screw terminal, SP = Spring-type terminal

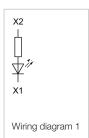
					Wiring dia- gram	
LED colour	Operating voltage	Lumi. intensityt	Terminal	Part No.	Wiring	Weight
	Illumination element					
red	6-24 VAC/DC	4501120 mcd	Screw	45-320.1E11	1	0.009 kg
amber	6-24 VAC/DC	4501120 mcd	Screw	45-320.1F11	1	0.009 kg
yellow	6-24 VAC/DC	9001400 mcd	Screw	45-320.1G11	1	0.009 kg
green	6-24 VAC/DC	9001400 mcd	Screw	45-320.1H11	1	0.009 kg
blue	6-24 VAC/DC	280710 mcd	Screw	45-320.1J11	1	0.009 kg
white	6-24 VAC/DC	9001400 mcd	Screw	45-320.1N11	1	0.009 kg
red	24-240 VAC/DC	4501120 mcd	Screw	45-320.1E12	1	0.010 kg
amber	24-240 VAC/DC	4501120 mcd	Screw	45-320.1F12	1	0.010 kg
yellow	24-240 VAC/DC	9001400 mcd	Screw	45-320.1G12	1	0.010 kg
green	24-240 VAC/DC	9001400 mcd	Screw	45-320.1H12	1	0.010 kg
blue	24-240 VAC/DC	280710 mcd	Screw	45-320.1J12	1	0.010 kg
white	24-240 VAC/DC	9001400 mcd	Screw	45-320.1N12	1	0.010 kg
red	24 VAC/DC	4501120 mcd	Screw	45-320.1E16	1	0.009 kg
amber	24 VAC/DC	4501120 mcd	Screw	45-320.1F16	1	0.009 kg
yellow	24 VAC/DC	9001400 mcd	Screw	45-320.1G16	1	0.009 kg
green	24 VAC/DC	9001400 mcd	Screw	45-320.1H16	1	0.009 kg
blue	24 VAC/DC	280710 mcd	Screw	45-320.1J16	1	0.009 kg
white	24 VAC/DC	9001400 mcd	Screw	45-320.1N16	1	0.009 kg
red	110 VAC	4501120 mcd	Screw	45-320.1E17	1	0.010 kg
amber	110 VAC	4501120 mcd	Screw	45-320.1F17	1	0.010 kg
yellow	110 VAC	9001400 mcd	Screw	45-320.1G17	1	0.010 kg
green	110 VAC	9001400 mcd	Screw	45-320.1H17	1	0.010 kg
blue	110 VAC	280710 mcd	Screw	45-320.1J17	1	0.010 kg
white	110 VAC	9001400 mcd	Screw	45-320.1N17	1	0.010 kg

LED colour	Operating voltage	Lumi. intensity	Terminal	Part No.	Wiring dia- gram	Weight
red	230 VAC	4501120 mcd	Screw	45-320.1E18	1	0.010 kg
amber	230 VAC	4501120 mcd	Screw	45-320.1F18	1	0.010 kg
yellow	230 VAC	9001400 mcd	Screw	45-320.1G18	1	0.010 kg
green	230 VAC	9001400 mcd	Screw	45-320.1H18	1	0.010 kg
blue	230 VAC	280710 mcd	Screw	45-320.1J18	1	0.010 kg
white	230 VAC	9001400 mcd	Screw	45-320.1N18	1	0.010 kg

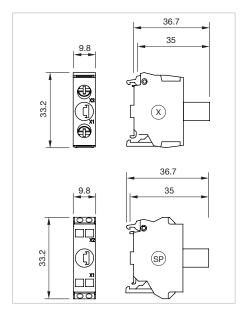


# Illumination element

red	6-24 VAC/DC	4501120 mcd	Spring-type terminal	45-320.1E41	1	0.009 kg
amber	6-24 VAC/DC	4501120 mcd	Spring-type terminal	45-320.1F41	1	0.009 kg
yellow	6-24 VAC/DC	9001400 mcd	Spring-type terminal	45-320.1G41	1	0.009 kg
green	6-24 VAC/DC	9001400 mcd	Spring-type terminal	45-320.1H41	1	0.009 kg
blue	6-24 VAC/DC	280710 mcd	Spring-type terminal	45-320.1J41	1	0.009 kg
white	6-24 VAC/DC	9001400 mcd	Spring-type terminal	45-320.1N41	1	0.009 kg
red	24-240 VAC/DC	4501120 mcd	Spring-type terminal	45-320.1E42	1	0.010 kg
amber	24-240 VAC/DC	4501120 mcd	Spring-type terminal	45-320.1F42	1	0.010 kg
yellow	24-240 VAC/DC	9001400 mcd	Spring-type terminal	45-320.1G42	1	0.010 kg
green	24-240 VAC/DC	9001400 mcd	Spring-type terminal	45-320.1H42	1	0.010 kg
olue	24-240 VAC/DC	280710 mcd	Spring-type terminal	45-320.1J42	1	0.010 kg
white	24-240 VAC/DC	9001400 mcd	Spring-type terminal	45-320.1N42	1	0.010 kg
red	24 VAC/DC	4501120 mcd	Spring-type terminal	45-320.1E46	1	0.009 kg
amber	24 VAC/DC	4501120 mcd	Spring-type terminal	45-320.1F46	1	0.009 kg
yellow	24 VAC/DC	9001400 mcd	Spring-type terminal	45-320.1G46	1	0.009 kg
green	24 VAC/DC	9001400 mcd	Spring-type terminal	45-320.1H46	1	0.009 kg
blue	24 VAC/DC	280710 mcd	Spring-type terminal	45-320.1J46	1	0.009 kg
white	24 VAC/DC	9001400 mcd	Spring-type terminal	45-320.1N46	1	0.009 kg
red	110 VAC	4501120 mcd	Spring-type terminal	45-320.1E47	1	0.010 kg
amber	110 VAC	4501120 mcd	Spring-type terminal	45-320.1F47	1	0.010 kg
yellow	110 VAC	9001400 mcd	Spring-type terminal	45-320.1G47	1	0.010 kg
green	110 VAC	9001400 mcd	Spring-type terminal	45-320.1H47	1	0.010 kg
blue	110 VAC	280710 mcd	Spring-type terminal	45-320.1J47	1	0.010 kg
white	110 VAC	9001400 mcd	Spring-type terminal	45-320.1N47	1	0.010 kg
red	230 VAC	4501120 mcd	Spring-type terminal	45-320.1E48	1	0.010 kg
amber	230 VAC	4501120 mcd	Spring-type terminal	45-320.1F48	1	0.010 kg
yellow	230 VAC	9001400 mcd	Spring-type terminal	45-320.1G48	1	0.010 kg
green	230 VAC	9001400 mcd	Spring-type terminal	45-320.1H48	1	0.010 kg
blue	230 VAC	280710 mcd	Spring-type terminal	45-320.1J48	1	0.010 kg
white	230 VAC	9001400 mcd	Spring-type terminal	45-320.1N48	1	0.010 kg



#### Illumination element base mounting



Dimensions [mm] X = Screw terminal, SP = Spring-type terminal

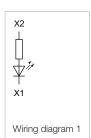
					Wiring dia- gram	
LED colour	Operating voltage	Lumi. intensity	Terminal	Part No.	Wiring	Weight
	Illumination element					
red	6-24 VAC/DC	4501120 mcd	Screw	45-320.2E11	1	0.009 kg
amber	6-24 VAC/DC	4501120 mcd	Screw	45-320.2F11	1	0.009 kg
yellow	6-24 VAC/DC	9001400 mcd	Screw	45-320.2G11	1	0.009 kg
green	6-24 VAC/DC	9001400 mcd	Screw	45-320.2H11	1	0.009 kg
blue	6-24 VAC/DC	280710 mcd	Screw	45-320.2J11	1	0.009 kg
white	6-24 VAC/DC	9001400 mcd	Screw	45-320.2N11	1	0.009 kg
red	24-240 VAC/DC	9001400 mcd	Screw	45-320.2E12	1	0.009 kg
amber	24-240 VAC/DC	4501120 mcd	Screw	45-320.2F12	1	0.009 kg
yellow	24-240 VAC/DC	9001400 mcd	Screw	45-320.2G12	1	0.009 kg
green	24-240 VAC/DC	9001400 mcd	Screw	45-320.2H12	1	0.009 kg
olue	24-240 VAC/DC	280710 mcd	Screw	45-320.2J12	1	0.009 kg
white	24-240 VAC/DC	9001400 mcd	Screw	45-320.2N12	1	0.009 kg
red	24 VAC/DC	4501120 mcd	Screw	45-320.2E16	1	0.009 kg
amber	24 VAC/DC	4501120 mcd	Screw	45-320.2F16	1	0.009 kg
yellow	24 VAC/DC	9001400 mcd	Screw	45-320.2G16	1	0.009 kg
green	24 VAC/DC	9001400 mcd	Screw	45-320.2H16	1	0.009 kg
olue	24 VAC/DC	280710 mcd	Screw	45-320.2J16	1	0.009 kg
white	24 VAC/DC	9001400 mcd	Screw	45-320.2N16	1	0.009 kg
red	110 VAC	4501120 mcd	Screw	45-320.2E17	1	0.009 kg
amber	110 VAC	4501120 mcd	Screw	45-320.2F17	1	0.009 kg
yellow	110 VAC	9001400 mcd	Screw	45-320.2G17	1	0.009 kg
green	110 VAC	9001400 mcd	Screw	45-320.2H17	1	0.009 kg
olue	110 VAC	280710 mcd	Screw	45-320.2J17	1	0.009 kg
white	110 VAC	9001400 mcd	Screw	45-320.2N17	1	0.009 kg

LED colour	Operating voltage	Lichtstärke	Terminal	Part No.	Wiring dia- gram	Weight
red	230 VAC	4501120 mcd	Screw	45-320.2E18	1	0.009 kg
amber	230 VAC	4501120 mcd	Screw	45-320.2F18	1	0.009 kg
yellow	230 VAC	9001400 mcd	Screw	45-320.2G18	1	0.009 kg
green	230 VAC	9001400 mcd	Screw	45-320.2H18	1	0.009 kg
blue	230 VAC	280710 mcd	Screw	45-320.2J18	1	0.009 kg
white	230 VAC	9001400 mcd	Screw	45-320.2N18	1	0.009 kg

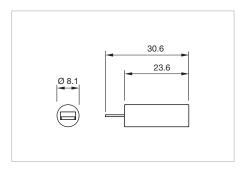


#### Illumination element

	mannation element					
red	6-24 VAC/DC	4501120 mcd	Spring-type terminal	45-320.2E41	1	0.009 kg
amber	6-24 VAC/DC	4501120 mcd	Spring-type terminal	45-320.2F41	1	0.009 kg
yellow	6-24 VAC/DC	9001400 mcd	Spring-type terminal	45-320.2G41	1	0.009 kg
green	6-24 VAC/DC	9001400 mcd	Spring-type terminal	45-320.2H41	1	0.009 kg
blue	6-24 VAC/DC	280710 mcd	Spring-type terminal	45-320.2J41	1	0.009 kg
white	6-24 VAC/DC	9001400 mcd	Spring-type terminal	45-320.2N41	1	0.009 kg
red	24-240 VAC/DC	4501120 mcd	Spring-type terminal	45-320.2E42	1	0.009 kg
amber	24-240 VAC/DC	4501120 mcd	Spring-type terminal	45-320.2F42	1	0.009 kg
yellow	24-240 VAC/DC	9001400 mcd	Spring-type terminal	45-320.2G42	1	0.009 kg
green	24-240 VAC/DC	9001400 mcd	Spring-type terminal	45-320.2H42	1	0.009 kg
blue	24-240 VAC/DC	280710 mcd	Spring-type terminal	45-320.2J42	1	0.009 kg
white	24-240 VAC/DC	9001400 mcd	Spring-type terminal	45-320.2N42	1	0.009 kg
red	24 VAC/DC	4501120 mcd	Spring-type terminal	45-320.2E46	1	0.009 kg
amber	24 VAC/DC	4501120 mcd	Spring-type terminal	45-320.2F46	1	0.009 kg
vellow	24 VAC/DC	9001400 mcd	Spring-type terminal	45-320.2G46	1	0.009 kg
green	24 VAC/DC	9001400 mcd	Spring-type terminal	45-320.2H46	1	0.009 kg
olue	24 VAC/DC	280710 mcd	Spring-type terminal	45-320.2J46	1	0.009 kg
white	24 VAC/DC	9001400 mcd	Spring-type terminal	45-320.2N46	1	0.009 kg
red	110 VAC	4501120 mcd	Spring-type terminal	45-320.2E47	1	0.009 kg
amber	110 VAC	4501120 mcd	Spring-type terminal	45-320.2F47	1	0.009 kg
ellow	110 VAC	9001400 mcd	Spring-type terminal	45-320.2G47	1	0.009 kg
green	110 VAC	9001400 mcd	Spring-type terminal	45-320.2H47	1	0.009 kg
olue	110 VAC	280710 mcd	Spring-type terminal	45-320.2J47	1	0.009 kg
white	110 VAC	9001400 mcd	Spring-type terminal	45-320.2N47	1	0.009 kg
red	230 VAC	4501120 mcd	Spring-type terminal	45-320.2E48	1	0.009 kg
amber	230 VAC	4501120 mcd	Spring-type terminal	45-320.2F48	1	0.009 kg
yellow	230 VAC	9001400 mcd	Spring-type terminal	45-320.2G48	1	0.009 kg
green	230 VAC	9001400 mcd	Spring-type terminal	45-320.2H48	1	0.009 kg
olue	230 VAC	280710 mcd	Spring-type terminal	45-320.2J48	1	0.009 kg
white	230 VAC	9001400 mcd	Spring-type terminal	45-320.2N48	1	0.009 kg
					$\rightarrow$	

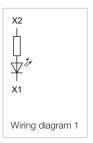


# Illumination element PCB mounting

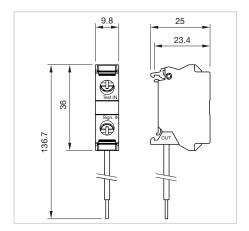


Dimensions [mm] X = Screw terminal, SP = Spring-type terminal

LED colour	Operating voltage	Terminal	Part No.	Wiring dia- gram	Weight
red	5 VDC	PCB terminal	45-320.3E60	1	0.009 kg
amber	5 VDC	PCB terminal	45-320.3F60	1	0.009 kg
yellow	5 VDC	PCB terminal	45-320.3G60	1	0.009 kg
green	5 VDC	PCB terminal	45-320.3H60	1	0.009 kg
blue	5 VDC	PCB terminal	45-320.3J60	1	0.009 kg
white	5 VDC	PCB terminal	45-320.3N60	1	0.009 kg



# Test module

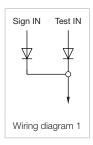


Dimensions [mm]

X = Screw terminal,

SP = Spring-type terminal

Product attribute	Operating voltage	Terminal	Part No.	Wiring dia- gram	Weight
	e front mounting		45 000 4445		0.044
front plate mounting	12-240 VAC/DC	Screw	45-330.1115	1	0.011 kg
Test modul	e base mounting				
base mounting	12-240 VAC/DC	Screw	45-330.2115	1	0.011 kg



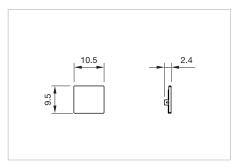
#### **Extension plungers**



#### Legend plate for switching elements

#### **Additional Information**

- Without inscription
- In support of the dust resistance



Dimensions [mm]

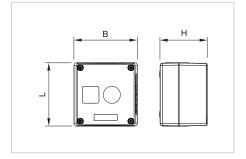
Product attribute	Dimension	Material	Colour	Part No.	Weight
Leger	nd plate				
for snapping in place	10.5 x 9.5 mm	Plastic	white	45-523.1900	0.001 kg

# Mounting

# Enclosure, IP66, IP67, IP69K

#### **Additional Information**

Openings for cable gland M16 or M20



Dimensions [mm]

Product attribute	Dimension	Material	Colour	Part No.	Weight
Enclosure					
mounting hole Ø 22.3 mm	L 85 x B 85 x H 64 mm	Plastic	grey	45-430.1801	0.251 kg
Enclosure					
mounting hole Ø 22.3 mm	L 85 x B 85 x H 64 mm	Plastic	yellow	45-410.1401	0.248 kg
mounting hole Ø 22.3 mm, for base mounting, top nd bottom 1 x M20	L 89.4 x B 85 x H 64 mm	Metal	yellow	45-410.2403	0.478 kg
Enclosure					
mounting hole Ø 22.3 mm, for base mounting, top and bottom 1 x M20	L 89.4 x B 85 x H 64 mm	Metal	grey	45-430.2803	0.479 kg
Enclosure				,	
mounting hole Ø 22.3 mm, with protective shroud	L 85 x B 85 x H 64 mm	Plastic	yellow	45-420.1401	0.287 kg
Enclosure					
mounting hole Ø 22.3 mm, with protective shroud, or base mounting, top and bottom 1 x M20	L 89.4 x B 85 x H 64 mm	Metal	grey	45-420.2803	0.568 kg

Product attribute	Dimension	Material	Colour	Part No.	Weight
Enclosure					
2 mounting holes Ø 22.3 mm	L 114 x B 85 x H 64 mm	Plastic	grey	45-440.1801	0.299 kg
2 mounting holes Ø 22.3 mm, for base mounting, top and bottom 1 x M20	L 118 x B 85 x H 64 mm	Metal	grey	45-440.2803	0.299 kg
3 mounting holes Ø 22.3 mm	L 154 x B 85 x H 64 mm	Plastic	grey	45-450.1801 45-450.2803	
Enclosure 3 mounting holes Ø 22.3 mm	L 154 x B 85 x H 64 mm	Plastic	grey	45-450.1801	0.364 kg
3 mounting holes Ø 22.3 mm, for base mounting, top and bottom 1 x M20	L 158 x B 85 x H 64 mm	Metal	grey	45-450.2803	0.683 kg
Enclosure 4 mounting holes Ø 22.3 mm	L 194 x B 85 x H 64 mm	Plastic	grey	45-460.1802	0.436 kg
4 mounting holes Ø 22.3 mm, for base mounting, top and bottom 1 x M20	L 199 x B 85 x H 64 mm	Metal	grey	45-460.2804	0.799 kg
Enclosure 6 mounting holes Ø 22.3 mm	L 280 x B 85 x H 64 mm	Plastic	grey	45-470.1802	0.602 kg
6 mounting holes Ø 22.3 mm, for base mounting, top		Metal	grey	45-470,2804	1.081 kg
and bottom 1 x M20			3 7		

# Cable gland, IP66, IP67, IP69K

Thread	Material	Colour	Part No.	Weight
Cable gland				
M20	Plastic	black	45-507.1100	0.016 kg
M25	Plastic	black	45-509.1100	0.022 kg

# Connection piece, IP 68

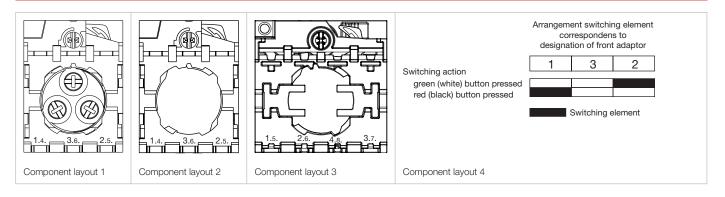
Product attribute	Thread	Material	Colour	Part No.	Weight
Connection piece					
for connecting 2 enclosures, with hexagonal nut	M20/M20	Plastic	black	45-50C.1900	0.050 kg
Connection piece					
for connecting 2 enclosures, with hexagonal nut	M20/M25	Plastic	black	45-50D.1900	0.055 kg
for connecting 2 enclosures, with hexagonal nut	M25/M25	Plastic	black	45-50E.1900	0.060 kg
Connection piece for connecting 2 enclosures, with hexagonal nut	M25/M25	Plastic	black	45-50E.1900	0.060 kg
Connection piece					
for connecting 2 enclosures, with hexagonal nut	M20/M20	Metal	silver	45-50C.2900	0.055 kg
Connection piece					
for connecting 2 enclosures, with hexagonal nut	M20/M25	Metal	silver	45-50D.2900	0.075 kg
Connection piece					
for connecting 2 enclosures, with hexagonal nut	M25/M25	Metal	silver	45-50E.2900	0.077 kg

# **Enclosure cover monitoring**

Product attribute	Material	Colour	Part No.	Weight	
Enclosure cover monitoring					
with extension plungers	Plastic	black	45-50G.0900	0.007 kg	

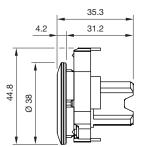
# 45 Drawings

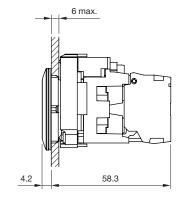
#### **Drawings**



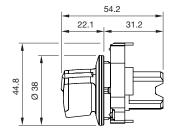
#### Dimensions incl. mounting depth of 3 or 4 elements

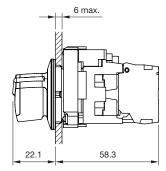
# Indicator, Pushbutton, Illuminated pushbutton (flush design)



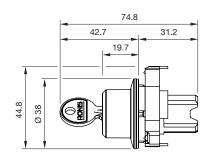


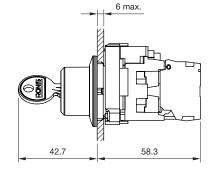
#### Selector switch short lever (flush design)



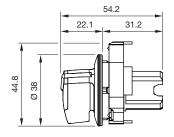


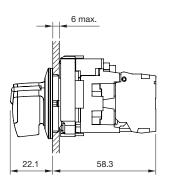
# Keylock switch (flush design)



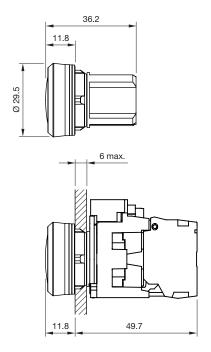


#### Selector switch long lever (flush design)

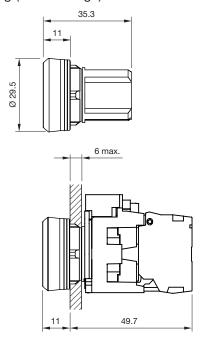




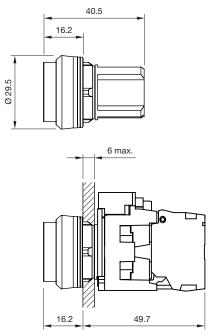
Indicator full face illumination (raised design)



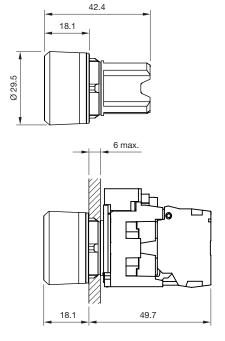
Indicator front illumination, Pushbutton, Illuminated pushbutton, Lens level with front ring (raised design)



Pushbutton, Illuminated pushbutton, lens raised above front ring (raised design)

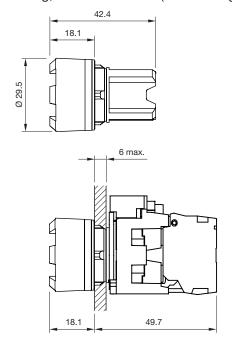


Pushbutton, lens lower than front ring (raised design)

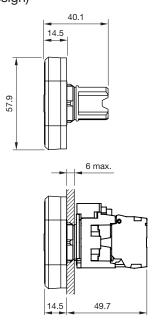


# 45 Drawings

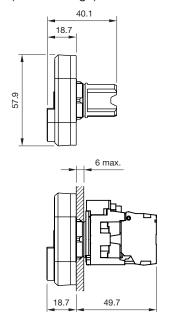
Pushbutton, Illuminated pushbutton, lens lower than front ring, with castellation (raised design)



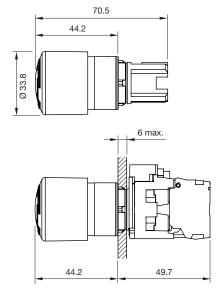
Double pushbutton, Lens level with front ring (raised design)



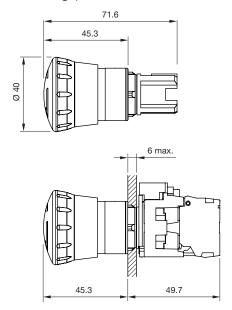
Double pushbutton, level with/raised above front ring (raised design)



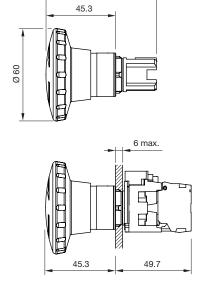
Emergency stop switch Ø 33.8 mm (raised design)



## Emergency stop switch, Stop switch $\varnothing$ 40 mm (raised design)

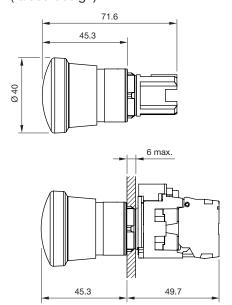


## Emergency stop switch Ø 60 mm (raised design)

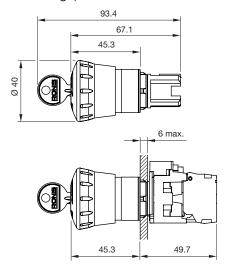


71.6

## Emergency stop switch, Stop switch $\emptyset$ 40 mm (raised design)

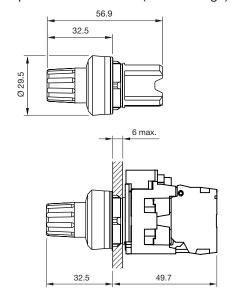


## Emergency stop switch with key $\emptyset$ 40 mm (raised design)

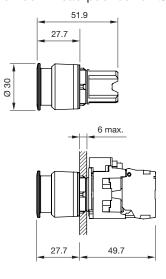


## 45 Drawings

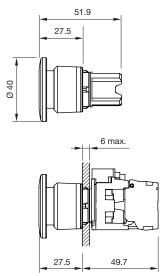
Stop switch Ø 29.5 mm (raised design)



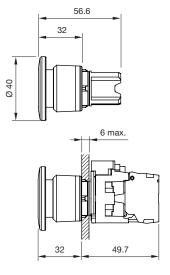
Mushroom-head pushbutton Ø 30 mm (raised design)



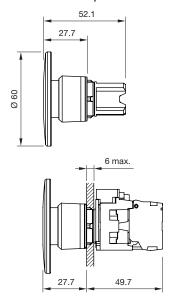
Mushroom-head pushbutton Momentary, Maintain,  $\varnothing$  40 mm (raised design)



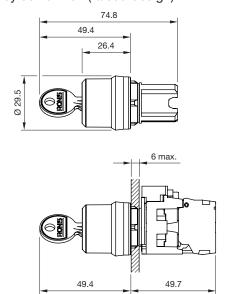
Mushroom-head pushbutton Momentary/Maintain, Momentary/Momentary, Ø 40 mm (raised design)



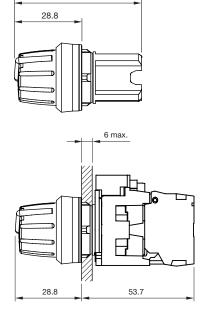
## Mushroom-head pushbutton $\emptyset$ 60 mm (raised design)



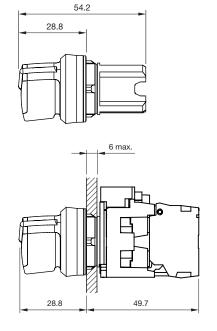
## Keylock switch (raised design)



Selector switch, round lever (raised design)

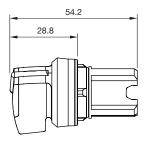


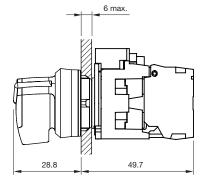
Selector switch, short lever (raised design)



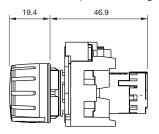
## 45 Drawings

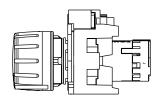
## Selector switch, long lever (raised design)



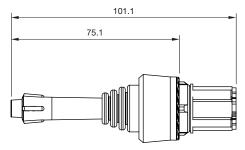


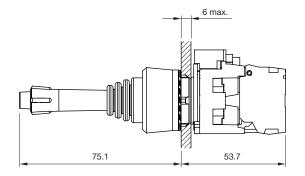
## Potentiometer (raised design)



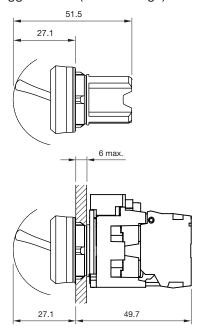


Toggle stick (raised design)





Toggle switch (raised design)



## **Indicator actuator**

#### **Material**

#### **Actuator element**

Plastic

## Front ring

Plastic or metal

## **Actuator housing**

Plastic or metal

#### **Mechanical characteristics**

## Vibration resistance

according to IEC 60068-2-6 2 ... 500 Hz: 5 g

#### **Shock resistance**

according to IEC 60068-2-27 Sinusoidal half-wave 50 g /11 ms

## **Environmental conditions**

## **Operating temperature**

-25 °C ... +70 °C

## Storage temperature

-40 °C ... +80 °C

#### **Protection degree**

IP66, IP67, IP69K

## **Environmental category**

during operation according to IEC 60721: 3K6, 3C3, 3S2, 3M6

#### **Pushbutton actuator**

#### **Material**

#### **Actuator element**

Plastic

## Front ring

Plastic or metal

## **Actuator housing**

Plastic or metal

## **Mechanical characteristics**

## **Operating frequency**

Lens flat/level with front bezel:

- Momentary max. 3 600/h
- Maintain max. 1 800/h

Lens flat/raised above front ring:

- Momentary max. 3 600/h
- Maintain max. 1 800/h

Lens flat/lower than front ring:

- Momentary max. 3 600/h

Lens flat/lower than front ring, with castellation:

- Momentary max. 3 600/h

## Mechanical lifetime

Lens flat/level with front bezel:

- Momentary 10 000 000 switching cycles
- Maintain 500 000 switching cycles

Lens flat/raised above front ring:

- Momentary 10 000 000 switching cycles
- Maintain 500 000 switching cycles

Lens flat/lower than front ring:

- Momentary 10 000 000 switching cycles

Lens flat/lower than front ring, with castellation:

- Momentary 10 000 000 switching cycles

#### Vibration resistance

according to IEC 60068-2-6 20 ... 500 Hz: 5 g

#### **Shock resistance**

according to IEC 60068-2-27 Sinusoidal half-wave 50 g /11 ms

## **Environmental conditions**

## Operating temperature

-25 °C ... +70 °C

## Storage temperature

-40 °C ... +80 °C

## **Protection degree**

IP66, IP67, IP69K

## **Environmental category**

## 45 Technical data

## Double pushbutton actuator, Double pushbutton actuator illuminated

#### **Material**

#### **Actuator element**

**Plastic** 

## Front ring

Plastic or metal

## **Actuator housing**

Plastic or metal

## **Mechanical characteristics**

## **Operating frequency**

max. 3 600/h

## **Mechanical lifetime**

2 000 000 switching cycles

## Vibration resistance

according to IEC 60068-2-6 10 ... 500 Hz: 5 g

#### Shock resistance

according to IEC 60068-2-27 Sinusoidal half-wave 50 g /11 ms

#### **Environmental conditions**

## Operating temperature

-25 °C ... +70 °C

## Storage temperature

-40 °C ... +80 °C

## **Protection degree**

IP66, IP67, IP69K

#### **Environmental category**

during operation according to IEC 60721: 3K6, 3C3, 3S2, 3M6, 2B2

## Illuminated pushbuton actuator

#### **Material**

#### **Actuator element**

Plastic

#### Front ring

Plastic or metal

#### **Actuator housing**

Plastic or metal

## **Mechanical characteristics**

## **Operating frequency**

Lens flat/level with front bezel:

- Momentary max. 3 600/h
- Maintain max. 1 800/h

Lens flat/raised above front ring:

- Momentary max. 3 600/h

Lens flat/lower than front ring, with castellation:

- Momentary max. 3 600/h

## **Mechanical lifetime**

Lens flat/level with front bezel:

- Momentary 3 000 000 switching cycles
- Maintain 500 000 switching cycles

Lens flat/raised above front ring:

- Momentary 3 000 000 switching cycles

Lens flat/lower than front ring, with castellation:

- Momentary 3 000 000 switching cycles

## Vibration resistance

according to IEC 60068-2-6 20 ... 500 Hz: 5 g

## **Shock resistance**

according to IEC 60068-2-27 Sinusoidal half-wave 50 g /11 ms

#### **Environmental conditions**

## Operating temperature

−25 °C ... +70 °C

## Storage temperature

–40 °C ... +80 °C

## **Protection degree**

IP66, IP67, IP69K

## **Environmental category**

## **Emergency stop switch actuator**

#### **Material**

## **Actuator element**

Plastic red

## **Actuator housing**

Plastic or metal

## **Mechanical characteristics**

## Type of unlocking device

Twist to release, pull release or key to release

## **Operating frequency**

max. 600/h

## **Mechanical lifetime**

300 000 switching cycles

## Vibration resistance

according to IEC 60068-2-6 2 ... 500 Hz: 5 g

## **Shock resistance**

according to IEC 60068-2-27 Sinusoidal half-wave 50 g /11 ms

#### **Environmental conditions**

## **Operating temperature**

−25 °C ... +70 °C

## Storage temperature

–40 °C ... +80 °C

## **Protection degree**

IP66, IP67, IP69K

#### **Environmental category**

during operation according to IEC 60721: 3K6, 3C3, 3S2, 3M6

## Stop switch actuator

## **Material**

## **Actuator element**

Plastic red

## **Actuator housing**

Plastic or metal

## **Mechanical characteristics**

#### Type of unlocking device

Twist to release

## **Operating frequency**

max. 600/h

#### **Mechanical lifetime**

300 000 switching cycles

#### Vibration resistance

according to IEC 60068-2-6 2 ... 500 Hz: 5 g

## **Shock resistance**

according to IEC 60068-2-27 Sinusoidal half-wave 50 g /11 ms

## **Environmental conditions**

## **Operating temperature**

-25 °C ... +70 °C

## Storage temperature

-40 °C ... +80 °C

#### **Protection degree**

IP66, IP67, IP69K

## **Environmental category**

## 45 Technical data

## Mushroom-head pushbuton actuator

#### **Material**

**Actuator element** 

Plastic

**Actuator housing** 

Plastic or metal

**Mechanical characteristics** 

Type of unlocking device

Pull release

**Operating frequency** 

- Momentary max. 3 600/h

- Maintain max. 1 800/h

**Mechanical lifetime** 

- Momentary 10 000 000 switching cycles

- Maintain 500 000 switching cycles

Vibration resistance

according to IEC 60068-2-6 20 ... 500 Hz: 5 g Shock resistance

according to IEC 60068-2-27 Sinusoidal half-wave 50 g /11 ms

**Environmental conditions** 

Operating temperature

−25 °C ... +70 °C

Storage temperature

–40 °C ... +80 °C

**Protection degree** 

IP66, IP67, IP69K

**Environmental category** 

during operation according to IEC 60721: 3K6, 3C3, 3S2, 3M6

## Keylock switch actuator

## **Material**

**Actuator element** 

Metal

Front ring

Plastic or metal

**Actuator housing** 

Plastic or metal

**Mechanical characteristics** 

**Operating frequency** 

max. 1800/h

**Mechanical lifetime** 

1 000 000 switching cycles

Vibration resistance

according to IEC 60068-2-6 10 ... 500 Hz: 5 g **Shock resistance** 

according to IEC 60068-2-27 Sinusoidal half-wave 50 g /11 ms

**Environmental conditions** 

Operating temperature

−25 °C ... +70 °C

Storage temperature

-40 °C ... +80 °C

**Protection degree** 

IP66, IP67, IP69K

**Environmental category** 

during operation according to IEC 60721:

3K6, 3C3, 3S2, 3M6

## Selector switch actuator

#### **Material**

#### **Actuator element**

Round lever, plastic, illuminable Short lever, plastic, illuminable Long lever, plastic, illuminable

## Front ring

Plastic or metal

## **Actuator housing**

Plastic or metal

#### **Mechanical characteristics**

## **Operating frequency**

max. 1800/h

## **Mechanical lifetime**

1 000 000 switching cycles

## Vibration resistance

according to IEC 60068-2-6 10 ... 500 Hz: 5 g

## **Shock resistance**

according to IEC 60068-2-27 Sinusoidal half-wave 50 g /11 ms

#### **Environmental conditions**

## **Operating temperature**

-25 °C ... +70 °C

## Storage temperature

-40 °C ... +80 °C

## **Protection degree**

IP66, IP67, IP69K

#### **Environmental category**

during operation according to IEC 60721: 3K6, 3C3, 3S2, 3M6

## **Potentiometer**

#### **Material**

## **Actuator element**

Round lever, plastic

## Front ring

Plastic or metal

## **Actuator housing**

Plastic or metal

## **Mechanical characteristics**

## **Terminals**

Screw terminal

- Solid 2 x (1.0 ... 1.5 mm<sup>2</sup>)
- With end sleeves 2 x (0.5 ... 0.75 mm<sup>2</sup>)
- Finely stranded
- Without end sleeves 2 x (0.5 ... 0.75 mm<sup>2</sup>)
- With end sleeves 2 x (0.5 ... 1.5 mm<sup>2</sup>)
- For AWG cables for auxiliary contacts 2 x (18  $\dots$  14)

## **Tightening torque**

0.8 ... 1 Nm

## **Operating frequency**

max. 1 800/h

## **Mechanical lifetime**

25 000 switching cycles

## Vibration resistance

according to IEC 60068-2-6 10 ... 500 Hz: 5 g

## Shock resistance

according to IEC 60068-2-27 Sinusoidal half-wave 50 g /11 ms

## Slewing range

275° ±2°

## **Electrical characteristics**

## **Active power consumption**

0.5 W

## Insulation voltage

Rated value 500 V

## 45 Technical data

#### **Environmental conditions**

## **Operating temperature**

-25 °C ... +70 °C

## Storage temperature

-40 °C ... +80 °C

## **Protection degree**

IP66, IP67, IP69K

## **Environmental category**

during operation according to IEC 60721: 3K6, 3C3, 3S2, 3M6

## Toggle stick actuator

## **Material**

## **Actuator element**

Plastic

## Front ring

Plastic or metal

## **Actuator housing**

Plastic or metal

## **Mechanical characteristics**

## **Operating frequency**

3 600/h

## **Mechanical lifetime**

Momentary: 250 000 switching cycles

## Vibration resistance

according to IEC 60068-2-6 10 ... 500 Hz: 5 g

## Shock resistance

according to IEC 60068-2-27 Sinusoidal half-wave 50 g /11 ms

## **Environmental conditions**

## **Operating temperature**

−25 °C ... +70 °C

## Storage temperature

-40 °C ... +80 °C

## **Protection degree**

IP65, IP67

## **Environmental category**

## Toggle switch actuator

#### **Material**

#### **Actuator element**

Plastic

## Front ring

Plastic or metal

## **Actuator housing**

Plastic or metal

#### **Mechanical characteristics**

## **Operating frequency**

max. 1 800/h

## **Mechanical lifetime**

1 000 000 switching cycles

## Vibration resistance

according to IEC 60068-2-6 10 ... 500 Hz: 5 g

## **Shock resistance**

according to IEC 60068-2-27 Sinusoidal half-wave 50 g /11 ms

## **Environmental conditions**

## **Operating temperature**

-25 °C ... +70 °C

## Storage temperature

-40 °C ... +80 °C

#### **Protection degree**

IP66, IP67, IP69K

## **Environmental category**

during operation according to IEC 60721: 3K6, 3C3, 3S2, 3M6

## Slow-make switching element

## **Switching system**

The double-break, slow-make switching element is equipped with normally open or normally closed contact. The normally closed contact has forced opening. Slow-make contacts with forced action are ideal for high switch ratings. Up to six switching elements can be snapped to each holder.

The NC contact opens automatically upon disconnection of the actuator. On delivery, the contact is open (= safe state). Activation (= NC contacts on the non-actuated commanding device are closed) takes place upon first-time actuation after the contact block is snapped onto the actuator.

#### Material

#### **Material of contact**

Silver alloy

#### Housing

Plastic

#### **Mechanical characteristics**

## Terminals

Screw terminal

- Solid 2 x (1.0 ... 1.5 mm<sup>2</sup>)
- With end sleeves 2 x (0.5 ... 0.75 mm<sup>2</sup>)
- Finely stranded
- Without end sleeves 2 x (0.5 ... 0.75 mm<sup>2</sup>)
- With end sleeves 2 x (0.5 ... 1.5 mm<sup>2</sup>)
- For AWG cables for auxiliary contacts 2 x (18 ... 14)

Spring-type terminal (SP)

- Solid 2 x (0.25 ... 1.5 mm<sup>2</sup>)
- Finely stranded
- Without end sleeves 2 x (0.5 ... 1.5 mm<sup>2</sup>)
- With end sleeves 2 x (0.5 ... 0.75 mm<sup>2</sup>)
- For AWG cables for auxiliary contacts 2 x (24 ... 16)

## **Tightening torque**

Screw terminal, spring-type terminal 0.8 ... 0.9 Nm

## **Operating frequency**

max. 3 600/h

## 45 Technical data

**Mechanical lifetime** 

10 000 000 switching cycles

Vibration resistance

according to IEC 60068-2-6 2 ... 500 Hz: 5 g

Shock resistance

according to IEC 60068-2-27 Sinusoidal half-wave 50 g /11 ms

**Electrical characteristics** 

**Standards** 

The switches comply with the "Standards for low-voltage switching devices" EN IEC 60947-5-1

Thermal current

10 A

Insulation voltage

Rated value 500 V

Pollution degree

3

Surge voltage resistance

Rated value 6 kV

**Contact reliability** 

One contact failure per 100 million switching operations (17 V, 5 mA)

One contact failure per 10 million switching operations (5 V, 1 mA)

Operating voltage

at AC

- Rated value 5 ... 500 V

at DC

- Rated value 5 ... 500 V

**Operating current** 

at AC-12 Voltage 24 V 230 V 500 V Current 10 A 10 A 10 A

at AC-15

Voltage 24V 230 V 400 V 500 V Current 6 A 6 A 3 A 1.4 A

at DC-12

Voltage 24 V 48 V 110 V 230 V 400 V 500 V Current 10 A 5 A 2.5 A 1 A 0.3 A 0.2 A

at DC-13

Voltage 24 V 48 V 110 V 230 V 400 V 500 V Current 3 A 1.5 A 0.7 A 0.3 A 0.1 A 0.07 A

**Environmental conditions** 

**Operating temperature** 

-25 °C ... +70 °C

Storage temperature

-40 °C ... +80 °C

**Protection degree** 

Housing IP40 Terminal IP20

**Environmental category** 

during operation according to IEC 60721:

3K6, 3C3, 3S2, 3M6

**Approvals** 

**Approbations** 

CCC CSA

UL.

## **Illumination element**

#### **Material**

## Housing

Plastic

## **Mechanical characteristics**

#### **Terminals**

Screw terminal

- Solid 2 x (1.0 ... 1.5 mm<sup>2</sup>)
- With end sleeves 2 x (0.5 ... 0.75 mm<sup>2</sup>)
- Finely stranded
- Without end sleeves 2 x (0.5 ... 0.75 mm<sup>2</sup>)
- With end sleeves 2 x (0.5 ... 1.5 mm<sup>2</sup>)
- For AWG cables for auxiliary contacts 2 x (18 ... 14)

Spring-type terminal (SP)

- Solid 2 x (0.25 ... 1.5 mm<sup>2</sup>)
- Finely stranded
- Without end sleeves 2 x (0.5 ... 1.5 mm<sup>2</sup>)
- With end sleeves 2 x (0.5 ... 0.75 mm<sup>2</sup>)
- For AWG cables for auxiliary contacts 2 x (24 ... 16)

#### **Tightening torque**

Screw terminal, spring-type terminal 0.8 ... 0.9 Nm

#### **Shock resistance**

according to IEC 60068-2-27 Sinusoidal half-wave 50 g /11 ms  $\,$ 

## Vibration resistance

according to IEC 60068-2-6 2 ... 500 Hz: 5 g

#### **Electrical characteristics**

#### **Standards**

The switches comply with the "Standards for low-voltage switching devices" EN IEC 60947-5-1

EAO reserves the right to alter specifications without further notice.

## **Electrical life**

100 000 h

## Insulation voltage

Rated value 320 V

## Surge voltage resistance

Rated value 4 kV

#### **Environmental conditions**

## **Operating temperature**

-25 °C ... +70 °C

## Storage temperature

-40 °C ... +80 °C

#### **Protection degree**

Terminal IP20

## **Environmental category**

during operation according to IEC 60721: 3K6, 3C3, 3S2, 3M6

## **Approvals**

#### **Approbations**

CCC CSA UL

## **Declaration of conformity**

CE



## Inscription marking plates and legend plates

Labels can be inserted for identification pusposes in illuminated pushbuttons and pushbuttons with a flat lens. This marking plates are made of translucent plastic with a black inscription, which can be fitted in any  $90^{\circ}$  angle.

## Standard texts for marking plates

Example	Start	Part No. 45-563.0K00.T00029
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Standard texts German		Standard te	exts English
Ein	Part No. 45-563.0K00.T00001	On	Part No. 45-563.0K00.T00020
Aus	Part No. 45-563.0K00.T00002	Off	Part No. 45-563.0K00.T00021
Auf	Part No. 45-563.0K00.T00003	Up	Part No. 45-563.0K00.T00022
Ab	Part No. 45-563.0K00.T00004	Down	Part No. 45-563.0K00.T00023
Vor	Part No. 45-563.0K00.T00005	Forward	Part No. 45-563.0K00.T00024
Zurück	Part No. 45-563.0K00.T00006	Right	Part No. 45-563.0K00.T00026
Rechts	Part No. 45-563.0K00.T00007	Left	Part No. 45-563.0K00.T00027
Links	Part No. 45-563.0K00.T00008	Stop	Part No. 45-563.0K00.T00028
Halt	Part No. 45-563.0K00.T00009	Start	Part No. 45-563.0K00.T00029
Zu	Part No. 45-563.0K00.T00010	Reset	Part No. 45-563.0K00.T00030
Schnell	Part No. 45-563.0K00.T00011	Test	Part No. 45-563.0K00.T00031
Langsam	Part No. 45-563.0K00.T00012	Open	Part No. 45-563.0K00.T00032
Betrieb	Part No. 45-563.0K00.T00013	Close	Part No. 45-563.0K00.T00033
Störung	Part No. 45-563.0K00.T00014	Running	Part No. 45-563.0K00.T00035
Einrichten	Part No. 45-563.0K00.T00018	Fast	Part No. 45-563.0K00.T00044
		Slow	Part No. 45-563.0K00.T00045

## Symbols for marking plates

Graphic symbols are according to ISO 7000 or IEC 60417.

O Part No. 45-563.0K00.S00001	Part No. 45-563.0K00.S00012 Decrease, Minus	Part No. 45-563.0K00.S00023 Unlock
Part No. 45-563.0K00.S00002	Part No. 45-563.0K00.S00013 Electric motor	Part No. 45-563.0K00.S00024 Setting
Part No. 45-563.0K00.S00003	Part No. 45-563.0K00.S00014 Horn	Part No. 45-563.0K00.S00025 On-Off momentary contact type
Part No. 45-563.0K00.S00004	Part No. 45-563.0K00.S00015 Water tap	Part No. 45-563.0K00.S00026 Manual operating
Part No. 45-563.0K00.S00005 Arrow direction to right	Part No. 45-563.0K00.S00016 Pump	Part No. 45-563.0K00.S00027 Automatic cycle
Part No. 45-563.0K00.S00006 Arrow direction up	Part No. 45-563.0K00.S00017 Coolant pump	Part No. 45-563.0K00.S00028 Suction
Part No. 45-563.0K00.S00007 Clockwise rotation	Part No. 45-563.0K00.S00018 Lock, tighten	Part No. 45-563.0K00.S00029 Blowing
Part No. 45-563.0K00.S00008 Counterclockwise rotation	Part No. 45-563.0K00.S00019 Unlock, unclamp	
Part No. 45-563.0K00.S00009 Rapid traverse	Part No. 45-563.0K00.S00020 Brake	
Part No. 45-563.0K00.S00010 Feed	Part No. 45-563.0K00.S00021 Release brake	
Part No. 45-563.0K00.S00011 Increase, Plus	Part No. 45-563.0K00.S00022 Interlock	

## Customized inscription for marking plates

All dimensions in mm

Height of letters	Number of lines	Number of letters per line (target value)		
h		b1	b2	b3
4	1	10	-	_
3	2	_	8	-
	3	10	_	6







The gap between two words results in each case a letter less.

## 45 Marking

## Standard texts for legend plates black, 27 x 12.5 mm

Example

Reset

Part No. 45-573.1102.T00030

Standard text	s German	Standard tex	ts English	Standard text	s French
Ein	Part No. 45-573.1102.T00001	On	Part No. 45-573.1102.T00020	Marche	Part No. 45-573.1102.T00048
Aus	Part No. 45-573.1102.T00002	Off	Part No. 45-573.1102.T00021	Arrêt	Part No. 45-573.1102.T00049
Auf	Part No. 45-573.1102.T00003	Up	Part No. 45-573.1102.T00022	Montée	Part No. 45-573.1102.T00050
Ab	Part No. 45-573.1102.T00004	Down	Part No. 45-573.1102.T00023	Descente	Part No. 45-573.1102.T00051
Vor	Part No. 45-573.1102.T00005	Forward	Part No. 45-573.1102.T00024	Avant	Part No. 45-573.1102.T00052
Zurück	Part No. 45-573.1102.T00006	Reverse	Part No. 45-573.1102.T00025	Retour	Part No. 45-573.1102.T00053
Rechts	Part No. 45-573.1102.T00007	Right	Part No. 45-573.1102.T00026	Droite	Part No. 45-573.1102.T00054
Links	Part No. 45-573.1102.T00008	Left	Part No. 45-573.1102.T00027	Gauche	Part No. 45-573.1102.T00055
Halt	Part No. 45-573.1102.T00009	Stop	Part No. 45-573.1102.T00028	Ouvert	Part No. 45-573.1102.T00056
Zu	Part No. 45-573.1102.T00010	Start	Part No. 45-573.1102.T00029	Fermé	Part No. 45-573.1102.T00057
Betrieb	Part No. 45-573.1102.T00013	Reset	Part No. 45-573.1102.T00030	Rapide	Part No. 45-573.1102.T00058
Störung	Part No. 45-573.1102.T00014	Test	Part No. 45-573.1102.T00031	En Service	Part No. 45-573.1102.T00059
Hand Auto	Part No. 45-573.1102.T00015	Open	Part No. 45-573.1102.T00032	Defaut	Part No. 45-573.1102.T00060
Hand O Auto	Part No. 45-573.1102.T00017	Close	Part No. 45-573.1102.T00033	Reglage	Part No. 45-573.1102.T00061
		Jog	Part No. 45-573.1102.T00034	Arrêt d`urgence	Part No. 45-573.1102.T00062
		Running	Part No. 45-573.1102.T00035	Hors service	Part No. 45-573.1102.T00063
		Fault	Part No. 45-573.1102.T00036	Sous tension	Part No. 45-573.1102.T00064
		Run	Part No. 45-573.1102.T00037	Manu Auto	Part No. 45-573.1102.T00065
		Stop Start	Part No. 45-573.1102.T00038	Marche Arrêt	Part No. 45-573.1102.T00066
		Off On	Part No. 45-573.1102.T00039	Rearmement	Part No. 45-573.1102.T00067
		Power off	Part No. 45-573.1102.T00040		
		Power on	Part No. 45-573.1102.T00041		
		Man O Auto	Part No. 45-573.1102.T00042		
		Man Auto	Part No. 45-573.1102.T00043		

## Symbols for legend plates black, 27 x 12.5 mm

$\circ$	Part No. 45-573.1102.S00001	1 2	Part No. 45-573.1102.S00007
	Part No. 45-573.1102.S00002	*	Part No. 45-573.1102.S00009 Arrow/Direction up
0	Part No. 45-573.1102.S00005		

## Standard texts for legend plates silver, 27 x 12.5 mm

Example Reset	Part No. 45-573.1A02.T00030
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Standard texts German		Standard tex	ts English
Ein	Part No. 45-573.1A02.T00001	On	Part No. 45-573.1A02.T00020
Aus	Part No. 45-573.1A02.T00002	Off	Part No. 45-573.1A02.T00021
Auf	Part No. 45-573.1A02.T00003	Up	Part No. 45-573.1A02.T00022
Ab	Part No. 45-573.1A02.T00004	Down	Part No. 45-573.1A02.T00023
Vor	Part No. 45-573.1A02.T00005	Stop	Part No. 45-573.1A02.T00028
Zurück	Part No. 45-573.1A02.T00006	Start	Part No. 45-573.1A02.T00029
Rechts	Part No. 45-573.1A02.T00007	Reset	Part No. 45-573.1A02.T00030
Links	Part No. 45-573.1A02.T00008	Test	Part No. 45-573.1A02.T00031
Halt	Part No. 45-573.1A02.T00009	Open	Part No. 45-573.1A02.T00032
Zu	Part No. 45-573.1A02.T00010	Close	Part No. 45-573.1A02.T00033
Schnell	Part No. 45-573.1A02.T00011	Man O Auto	Part No. 45-573.1A02.T00042
Langsam	Part No. 45-573.1A02.T00012	Man Auto	Part No. 45-573.1A02.T00043
Betrieb	Part No. 45-573.1A02.T00013	Running	Part No. 45-573.1A02.T00035
Störung	Part No. 45-573.1A02.T00014	Fault	Part No. 45-573.1A02.T00036
Hand Auto	Part No. 45-573.1A02.T00015	Fast	Part No. 45-573.1A02.T00044
Stop Start	Part No. 45-573.1A02.T00016	Slow	Part No. 45-573.1A02.T00045
Hand O Auto	Part No. 45-573.1A02.T00017		

## Symbols for legend plates silver, 27 x 12.5 mm

0	Part No. 45-573.1A02.S00001		Part No. 45-573.1A02.S00006
	Part No. 45-573.1A02.S00002	1 🔾 2	Part No. 45-573.1A02.S00007
	Part No. 45-573.1A02.S00003	<b>-</b>	Part No. 45-573.1A02.S00008 Arrow/Direction right
	Part No. 45-573.1A02.S00004	*	Part No. 45-573.1A02.S00009 Arrow/Direction up
0	Part No. 45-573.1A02.S00005		



## Standard texts for legend plates black, 27 x 17.5 mm

Example	Stop	Part No. 45-573.1103.T00028
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Standard texts German		Standard texts English		Standard text	Standard texts French	
Ein	Part No. 45-573.1103.T00001	On	Part No. 45-573.1103.T00020	Marche	Part No. 45-573.1103.T00048	
Aus	Part No. 45-573.1103.T00002	Off	Part No. 45-573.1103.T00021	Arrêt	Part No. 45-573.1103.T00049	
Auf	Part No. 45-573.1103.T00003	Up	Part No. 45-573.1103.T00022	Droite	Part No. 45-573.1103.T00054	
Ab	Part No. 45-573.1103.T00004	Down	Part No. 45-573.1103.T00023	Gauche	Part No. 45-573.1103.T00055	
Vor	Part No. 45-573.1103.T00005	Forward	Part No. 45-573.1103.T00024	En Service	Part No. 45-573.1103.T00059	
Zurück	Part No. 45-573.1103.T00006	Reverse	Part No. 45-573.1103.T00025	Defaut	Part No. 45-573.1103.T00060	
Halt	Part No. 45-573.1103.T00009	Right	Part No. 45-573.1103.T00026	Sous tension	Part No. 45-573.1103.T00064	
Zu	Part No. 45-573.1103.T00010	Stop	Part No. 45-573.1103.T00028	Manu Auto	Part No. 45-573.1103.T00065	
Betrieb	Part No. 45-573.1103.T00011	Start	Part No. 45-573.1103.T00029	Marche Arrêt	Part No. 45-573.1103.T00066	
Störung	Part No. 45-573.1103.T00014	Open	Part No. 45-573.1103.T00032	Rearmement	Part No. 45-573.0K00.T00067	
Hand Auto	Part No. 45-573.1103.T00015	Close	Part No. 45-573.1103.T00033			
		Running	Part No. 45-573.1103.T00035			
		Fault	Part No. 45-573.1103.T00036			
		Stop Start	Part No. 45-573.1103.T00038			
		Man Auto	Part No. 45-573.1103.T00043			

## Symbols for legend plates black, 27 x 12.5 mm

$\circ$	Part No. 45-573.1103.S00001	<b>→</b>	Part No. 45-573.1103.S00008 Arrow/Direction right
	Part No. 45-573.1103.S00002	*	Part No. 45-573.1103.S00009 Arrow/Direction up
0	Part No. 45-573.1103.S00005		

## Standard texts for legend plates silver, 27 x 17.5 mm

Example Stop	Part No. 45-573.1A03.T00028
--------------	-----------------------------

Standard texts German		Standard texts English		
Ein	Part No. 45-573.1A03.T00001	On	Part No. 45-573.1A03.T00020	
Aus	Part No. 45-573.1A03.T00002	Off	Part No. 45-573.1A03.T00021	
Auf	Part No. 45-573.1A03.T00003	Stop	Part No. 45-573.1A03.T00028	
Ab	Part No. 45-573.1A03.T00004	Start	Part No. 45-573.1A03.T00029	
Vor	Part No. 45-573.1A03.T00005	Reset	Part No. 45-573.1A03.T00030	
Zurück	Part No. 45-573.1A03.T00006	Fault	Part No. 45-573.1A03.T00036	
Rechts	Part No. 45-573.1A03.T00007	Man O Auto	Part No. 45-573.1A03.T00043	
Halt	Part No. 45-573.1A03.T00009			
Zu	Part No. 45-573.1A03.T00010			
Betrieb	Part No. 45-573.1A03.T00013			
Störung	Part No. 45-573.1A03.T00014			
Hand Auto	Part No. 45-573.1A03.T00015			
Hand O Auto	Part No. 45-573.1A03.T00017			

## Symbols for legend plates silver, 27 x 17.5 mm

0	Part No. 45-573.1A02.S00001	1 🔾 2	Part No. 45-573.1A02.S00007
	Part No. 45-573.1A02.S00002	<b>→</b>	Part No. 45-573.1A02.S00008 Arrow/Direction right
0	Part No. 45-573.1A02.S00005	*	Part No. 45-573.1A02.S00009 Arrow/Direction up

## 45 Marking

## Standard texts for legend plates black, 27 x 27 mm

Example Stop

Part No. 45-573.1103.T00028

Standard texts German		Standard tex	cts English	Standard text	Standard texts French		
Ein	Part No. 45-573.1105.T00001	On	Part No. 45-573.1105.T00020	Marche	Part No. 45-573.1105.T00048		
Aus	Part No. 45-573.1105.T00002	Off	Part No. 45-573.1105.T00021	Arrêt	Part No. 45-573.1105.T00049		
Auf	Part No. 45-573.1105.T00003	Up	Part No. 45-573.1105.T00022	Montée	Part No. 45-573.1105.T00050		
Ab	Part No. 45-573.1105.T00004	Down	Part No. 45-573.1105.T00023	Descente	Part No. 45-573.1105.T00051		
Vor	Part No. 45-573.1105.T00005	Forward	Part No. 45-573.1105.T00024	En Service	Part No. 45-573.1105.T00059		
Zurück	Part No. 45-573.1105.T00006	Reverse	Part No. 45-573.1105.T00025	Defaut	Part No. 45-573.1105.T00060		
Rechts	Part No. 45-573.1105.T00007	Stop	Part No. 45-573.1105.T00028	Sous tension	Part No. 45-573.1105.T00064		
Links	Part No. 45-573.1105.T00008	Start	Part No. 45-573.1105.T00029	Manu Auto	Part No. 45-573.1105.T00065		
Halt	Part No. 45-573.1105.T00009	Stop Start	Part No. 45-573.1105.T00038	Marche Arrêt	Part No. 45-573.1105.T00066		
Zu	Part No. 45-573.1105.T00010	EMERGENCY STOP	Part No. 45-573.1105.T00046				
Betrieb	Part No. 45-573.1105.T00013						
Störung	Part No. 45-573.1105.T00014						
Hand Auto	Part No. 45-573.1105.T00015						

## Symbols for legend plates black, 27 x 27 mm

Graphic symbols are according to ISO 7000 or IEC 60417.



Part No. 45-573.1105.S00003



Part No. 45-573.1105.S00008 Arrow/Direction right

## **Customized inscription for legend plates**

All dimensionen in mm

Size of legend plates	Height of letters	Number of lines		
27 x 12.5	4	1		
	3.5	2		
	2.5	3		
27 x 17.5	4	1 – 2		
	3	3		
27 x 27	4	1 – 5		

Up to 11 characters per line are possible.

## **Suppressor circuits**

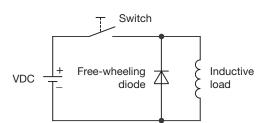
When switching inductive loads such as relays, DC motors, and DC solenoids, it is always important to absorb surges (e.g. with a diode) to protect the contacts. When these inductive loads are switched off, a counter emf can severely damage switch contacts and greatly shorten lifetime.

Fig. 1 shows an inductive load with a free-wheeling diode connected in parallel. This free-wheeling diode provides a path for the inductor current to flow when the current is interrupted by the switch. Without this free-wheeling diode, the voltage across the coil will be limited only by dielectric breakdown voltages of the circuit or parasitic elements of the coil. This voltage can be kilovolts in amplitude even when nominal circuit voltages are low (e. g. 12 VDC) see Fig. 2.

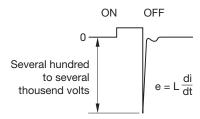
The free-wheeling diode should be chosen so that the reverse breakdown voltage is greater than the voltage driving the inductive load. The DC blocking voltage (VR) of the free-wheeling diode can be found in the datasheet of a diode. The forward current should be equal or greater than the maximum current flowing through the load.

To get an efficient protection, the free-wheeling diode must be connected as close as possible to the inductive load!

Switching with inductive load Fig. 1



Counter EMF over load without free-wheeling diode Fig. 2



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45-2131.31K0.000 41	45-2231.31N0.000 53	45-2531.2950.000 70	45-2632.29E0.00081	45-2819.3C90.003. 100	45-290E.2000.113 87
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45-2131.3220.000 44	45-2231.32G0.000 56	45-2531.2A20.000 73	45-2633.29E0.000 81	45-2819.4C50.003 30	45-290F.2000.113 87
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45-2131.3260.000 44	45-2231.32K0.000 57	45-2531.3810.000 66	45-2729.1020.000 64	45-2819.4D50.003 32	45-290G.1000.113 86
45-2131.3290.000 44	45-2231.4FE0.000 23	45-2531.3820.000 66	45-2736.1910.000 63	45-2819.4D90.003 32	45-290G.2000.113 87
45-2131.3310.000 46	45-2231.4FG0.000 23	45-2531.3840.000 66	45-2736.1960.000 63	45-2828.1C20.001 92	45-290G.3000.113 87
45-2131.3320.000 46	45-2231.4FH0.000 23	45-2531.3850.000 66	45-280S.1C20.003 98	45-2828.1C40.001 92	45-290H.1000.111 84
45-2131.3340.000 46	45-2231.4FJ0.000 23	45-2531.3910.000 69	45-280S.1C40.003 98	45-2828.1C50.001 92	45-290H.2000.111 85
45-2131.3350.000 46	45-2231.4FK0.000 23	45-2531.3920.00069	45-280S.1C50.003 98	45-2828.1C60.001 92	45-290H.3000.111 84
45-2131.3360.000 46	45-2234.11E0.000 52	45-2531.3940.000 69	45-280S.1C60.003 98	45-2828.1C90.001 92	45-290H.4F00.111 25
45-2131.3390.000 47	45-2234.11G0.000 52	45-2531.3950.000 70	45-280S.1C90.003 98	45-2828.1D20.001 94	45-290J.1000.111 84
				45-2828.1D90.001 94	45-290J.2000.111 85
45-2131.4F10.000 21	45-2234.11H0.000 52	45-2532.2910.00070	45-280S.2C20.003 102		
45-2131.4F20.000 21	45-2234.11J0.000 52	45-2532.2920.000 71	45-280S.2C30.003 102	45-2828.1E20.001 88	45-290J.3000.111 84
45-2131.4F40.000 21	45-2234.11K0.000 53	45-2533.2910.000 71	45-280S.2C40.003 102	45-2828.1E90.001 88	45-290J.4F00.111 25
45-2131.4F50.000 21	45-2234.11N0.000 53	45-2533.2920.000 71	45-280S.2C50.003 102	45-2828.2C20.001 93	45-290J.4F00.116 25
45-2131.4F60.000 21	45-2234.21E0.000 55	45-2630.18E0.00074	45-280S.2C60.003 102	45-2828.2C30.001 93	45-290K.1000.116 84
45-2131.4F90.000 22	45-2234.21G0.000 55	45-2630.18G0.000 74	45-280S.2C90.003 102	45-2828.2C50.001 93	45-290K.2000.116 85
45-2134.1110.000 39	45-2234.21H0.000 55	45-2630.18H0.000 74	45-280S.2D20.003 104	45-2828.2C90.001 93	45-290K.3000.116 84
45-2134.1120.000 40	45-2234.21J0.000 55	45-2630.18J0.000 74	45-280S.2D50.003 105	45-2828.2D20.001 95	45-290W.1000.113 86
45-2134.1140.000 40	45-2234.21K0.000 56	45-2630.18K0.000 74	45-280S.2D90.003 105	45-2828.2D40.001 95	45-290Z.1000.113 86
45-2134.1150.000 40	45-2234.21N0.000 55	45-2630.19E0.00078	45-280S.3C20.003 100	45-2828.2D50.001 95	45-290Z.2000.11387
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## **EAO** Contact.

## Your centre of excellence.

#### Headquarters

#### **EAO Holding AG**

Tannwaldstrasse 88 CH-4600 Olten Telephone +41 62 286 91 11 info@eao.com

## **Manufacturing Companies**

#### Switzerland

EAO AG Tannwaldstrasse 88 CH-4600 Olten Telephone +41 62 286 91 11 info@eao.com

EAO Systems AG Tannwaldstrasse 88 CH-4600 Olten Telephone +41 62 286 91 11 sales.esy@eao.com

#### China

EAO (Guangzhou) Ltd.
3/F, Block G4, South China
New Materials Innovation Park
31 Kefeng Road,
Guangzhou Science City,
CN-Guangzhou, PRC
Telephone +86 20 3229 0390
sales.ecn@eao.com

## Germany

EAO Automotive GmbH & Co. KG Richard-Wagner-Straße 3 DE-08209 Auerbach/Vogtland Telephone +49 3744 8264 0 sales.esa@eao.com

#### North America

EAO Corporation
One Parrott Drive
Shelton
US-CT 06484
Telephone +1 203 951 4600
sales.eus@eao.com

## Sales Companies

#### China

EAO (Guangzhou) Ltd.
3/F, Block G4, South China
New Materials Innovation Park
31 Kefeng Road,
Guangzhou Science City,
CN-Guangzhou, PRC
Telephone +86 20 3229 0390
sales.ecn@eao.com

EAO (Shanghai) Office Rm. 403, Block 5#, CIFI Century Square, Lane 28, NO. 21, Danba Road, Putuo District CN-Shanghai PRC Telephone +86 21 6095 0717 sales.ecn@eao.com

## France

EAO France SAS 5, rue Henri François FR-77330 Ozoir-la-Ferrière Telephone +33 1 64 43 37 37 sales.efr@eao.com

## Germany, Austria, Poland, Czech Republic

EAO GmbH Langenberger Straße 570 DE-45277 Essen Telephone +49 201 8587 0 sales.ede@eao.com

#### Hong Kong (Asia Pacific)

EAO (Far East) Ltd.
Unit A1, 1/F, Block A
Tin On Industrial Building
777 Cheung Sha Wan Road
Lai Chi Kok, Kln
HK-Hong Kong
Telephone +852 27 86 91 41
sales.ehk@eao.com

#### Italy

EAO Italia S.r.I.
Centro Direzionale Summit –
Palazzo D1
Via Brescia, 28
IT-20063 Cernusco sul Naviglio (MI)
Telephone +39 02 92 471934
sales.eit@eao.com

#### Japan

EAO Japan Co. Ltd. Net 1 Mita Bldg. 3F 3-1-4 Mita Minato-ku JP-Tokyo 108-0073 Telephone +81 3 5444 5411 sales.ejp@eao.com

#### Netherlands, Belgium

EAO Benelux B.V. Kamerlingh Onnesweg 46 NL-3316 GL Dordrecht Telephone +31 78 653 17 00 sales.enl@eao.com

#### North America

EAO Corporation One Parrott Drive Shelton US-CT 06484 Telephone +1 203 951 4600 sales.eus@eao.com

#### Sweden

EAO Svenska AB Box 7032 SE-121 07 Stockholm-Globen Telephone +46 8 683 86 60 sales.esw@eao.se

#### Switzerland

EAO Schweiz AG Tannwaldstrasse 86 CH-4600 Olten Telephone +41 62 286 95 00 sales.ech@eao.com

#### United Kingdom

EAO Ltd.
Highland House
Albert Drive
Burgess Hill
GB-West Sussex RH15 9TN
Telephone +44 1444 236 000
sales.euk@eao.com



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Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: http://oceanchips.ru/

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А