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Series 01

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Description

General Notes

The Series 01 illuminated pushbuttons are equipped with snap-action, low level switching elements.
In addition to the standard contacts (gold-plated silver), on request silver contacts for switching elements 2.8 mm plug-in terminals are available. The front dimensions of these units are 18 x 24 mm, 18 x 18 mm or 18 mm dia.
In addition to a number of illuminated pushbuttons, the customer can choose from a wide range of other units and accessories having the same front and mounting dimensions.

Mounting

Mount from the front through the mounting hole.
The universal terminals of the low-level switching elements permit them to be mounted on printed circuit boards (PCB).
These terminals are also suitable for dip soldering. For these terminals we can also supply a plug-in base which, when soldered on to the board, enables the switch to be plugged in. All rectangular switches are secured against rotation.

Lenses

The flat lenses, made of polymethyl methacrylate, are obtainable in various colours, as well as translucent or transparent.

Marking

For engraving, hot stamping and film inserts, see under “Marking” on page 33.

Illumination

Perfect illumination of the different coloured lenses is assured by lamps T 5,5 (6-60 V).
For supply voltages above 60 V, it is necessary to use a voltage reduction element (external series resistor, capacitor, or transformer).
Do not solder the terminals directly, because of the high surface temperature. Multi-LED lamps T 5,5 (6, 12, 24, 48 V) are available in the colours white, red, yellow and green.

Position Indication

When a switch with maintained action is actuated, the lens remains in the depressed position mechanically. The state of the switch is apparent at all times from the position of the lens.

Number structure

01-XXX.0XX

- Kind of terminals
- Contact material
- Switch variant

01-9XX.X	Lens
Example:	-Illuminated pushbutton, circular; momentary action, gold-plated silver contact; soldered terminals,1 switching element 01-131.025 -Lens red 01-983.2

Specimen order

Indicator:

- indicator, soldering terminals, 18 x 24 mm	01-040.005
Recommended accessories:	
- lens, blue, 18 x 24 mm	01-982.6
- LED, 1 chip, 12 VDC, white	10-2109.3139

All dimensions in mm.
We reserve the right to modify technical data.

illuminated-/pushbutton

1 lens
2 switch housing
3 fixing nut

indicator

recommended accessories:

lens → 19

incandescent lamp → 21; LED → 22

	diode (1N 4007)	connection method	18 x 24 mm part no.	18 x 18 mm part no.	18 mm dia. part no.	circuit drawing	technical drawing	mounting dimension	components layout	kg
indicator	-	PT	**01-040.002**	**01-050.002**	**01-030.002**	1	1	1	1	0,006
		ST	**01-040.005**	**01-050.005**	**01-030.005**	2	1	1	1	0,006
		UT	**01-041.006**	**01-051.006**	**01-031.006**	1	3	1	1	0,006
	1	UT	**01-701.006**	**01-703.006**	**01-741.006**	3	2	1	1	0,008
	2	UT	**01-702.006**	**01-704.006**	**01-742.006**	4	2	1	1	0,008

connection method: ST = soldering terminal; PT = plug-in terminal; UT = universal terminal; PCB plug-in base page 20
marking see page 33
technical drawing as of page 27, mounting dimensions, components layouts as of page 29, circuit drawing as of page 31

illuminated-/pushbutton

recommended accessories:

lens → 19

incandescent lamp → 21; LED → 22

	switching system	contacts	diode (1N 4007)	switching action	connection method	18 x 24 mm part no.	18 x 18 mm part no.	18 mm dia. part no.	circuit drawing	technical drawing	mounting dimension	components layout	kg
illuminated-/pushbutton	LL	1NC	-	main	UT	**01-466.036**	**01-486.036**	**01-476.036**	14	3	1	1	0,009
				mom	UT	**01-426.036**	**01-456.036**	**01-436.036**	28	3	1	1	0,009
		1NC + 1NO	-	main	UT	**01-463.036**	**01-483.036**	**01-473.036**	17	3	1	1	0,009
				mom	UT	**01-423.036**	**01-453.036**	**01-433.036**	31	3	1	1	0,009
		1NO	-	main	UT	**01-465.036**	**01-485.036**	**01-475.036**	16	3	1	1	0,009
				mom	UT	**01-425.036**	**01-455.036**	**01-435.036**	30	3	1	1	0,009
		2NC	-	main	UT	**01-462.036**	**01-482.036**	**01-472.036**	15	3	1	1	0,009
				mom	UT	**01-422.036**	**01-452.036**	**01-432.036**	29	3	1	1	0,009
		2NO	-	main	UT	**01-461.036**	**01-481.036**	**01-471.036**	18	3	1	1	0,009
				mom	UT	**01-421.036**	**01-451.036**	**01-431.036**	32	3	1	1	0,009
	SA	1NC + 1NO	-	main	ST/ PT	**01-261.022**	**01-281.022**	**01-271.022**	10	4	1	-	0,008
					ST	**01-261.025**	**01-281.025**	**01-271.025**	13	4	1	-	0,008
				mom	ST/ PT	**01-121.022**	**01-151.022**	**01-131.022**	24	4	1	-	0,008
					ST	**01-121.025**	**01-151.025**	**01-131.025**	27	4	1	-	0,008
			1	main	UT	**01-713.029**	**01-717.029**	**01-747.029**	11	5	1	1	0,010
				mom	UT	**01-705.029**	**01-709.029**	**01-743.029**	25	5	1	1	0,010
			2	main	UT	**01-714.029**	**01-718.029**	**01-748.029**	12	5	1	1	0,010
				mom	UT	**01-706.029**	**01-710.029**	**01-744.029**	26	5	1	1	0,010
		2NC + 2NO	-	main	ST	**01-262.025**	**01-282.025**	**01-272.025**	9	4	1	-	0,010
				mom	ST	**01-122.025**	**01-152.025**	**01-132.025**	23	4	1	-	0,010
			1	main	UT	**01-715.029**	**01-719.029**	**01-749.029**	7	5	1	1	0,012
				mom	UT	**01-707.029**	**01-711.029**	**01-745.029**	21	5	1	1	0,012
			2	main	UT	**01-716.029**	**01-720.029**	**01-750.029**	8	5	1	1	0,012
				mom	UT	**01-708.029**	**01-712.029**	**01-746.029**	22	5	1	1	0,012
		3NC + 3NO	-	main	ST	**01-263.025**	**01-283.025**	**01-273.025**	6	4	1	-	0,012
				mom	ST	**01-123.025**	**01-153.025**	**01-133.025**	20	4	1	-	0,012
		4NC + 4NO	-	main	ST	**01-264.025**	**01-284.025**	**01-274.025**	5	4	1	-	0,014
				mom	ST	**01-124.025**	**01-154.025**	**01-134.025**	19	4	1	-	0,014

switching system: LL = Low Level switching element, SA = snap-action switching element
switching action: main = maintained action, mom = momentary action
connection method: ST = soldering terminal; PT = plug-in terminal; UT = universal terminal; PCB plug-in base page 20
contacts: NC = normally closed, NO = normally open
power rating: Low Level switching element: 42 V/100 mA, snap-action switching element: 250 V/5 A
marking see page 33
technical drawing as of page 27, mounting dimensions, components layouts as of page 29, circuit drawing as of page 31

at front

lens

	shape	lens/support	colour	18 x 24 mm part no.	18 x 18 mm part no.	18 mm dia. part no.	kg
lens 12,8 x 18,8 mm, of plastic	flat	transparent/translucent	blue	**01-982.6**	**01-985.6**	**01-983.6**	0,001
			colourless, clear	**01-982.7**	**01-985.7**	**01-983.7**	0,001
			green	**01-982.5**	**01-985.5**	**01-983.5**	0,001
			orange	**01-982.3**	**01-985.3**	**01-983.3**	0,001
			red	**01-982.2**	**01-985.2**	**01-983.2**	0,001
			yellow	**01-982.4**	**01-985.4**	**01-983.4**	0,001
of plastic (not for film insert and LED)	flat	translucent/translucent	blue	**01-901.6**	**01-951.6**	**01-931.6**	0,001
			green	**01-901.5**	**01-951.5**	**01-931.5**	0,001
			orange	**01-901.3**	**01-951.3**	**01-931.3**	0,001
			red	**01-901.2**	**01-951.2**	**01-931.2**	0,001
			white	**01-901.9**	**01-951.9**	**01-931.9**	0,001
			yellow	**01-901.4**	**01-951.4**	**01-931.4**	0,001
of plastic (not for film insert and illumination)	flat	opaque/translucent	black	**01-901.0**	**01-951.0**	**01-931.0**	0,001
			grey	**01-901.8**	**01-951.8**	**01-931.8**	0,001
of plastic (not recommended for film insert)	flat	transparent/transparent	colourless, clear	**01-972.7**	**01-975.7**	**01-973.7**	0,001
			green	**01-972.5**	**01-975.5**	**01-973.5**	0,001
			red	**01-972.2**	**01-975.2**	**01-973.2**	0,001
			yellow	**01-972.4**	**01-975.4**	**01-973.4**	0,001

protective cover

	18 x 24 mm part no.	18 x 18 mm part no.	technical drawing	kg
protective cover hinged, transparent, cover to prevent accidental operation	**01-925**		6	0,002
		31-920	7	0,002

technical drawing as of page 27

sprayproof cover

front protection IP 67

	front shape	material	part no.	technical drawing	mounting dimension	kg
sprayproof cover two-part	rectangular	made of silicone	**31-924.2**	8	2	0,003
	square	made of PVC	**31-923**	8	2	0,003

technical drawing as of page 27, mounting dimensions as of page 29

protective guard

	construction	part no.	technical drawing	kg	
protective guard matt chromium-plated	broad sides bent upwards	**01-927**	10	0,011	
	narrow ends bent upwards	**01-926**	9	0,011	

technical drawing as of page 27

blind plug

	colour	18 x 24 mm part no.	18 x 18 mm part no.	18 mm dia. part no.	mounting dimension	kg	
blind plug	black	**01-947.0**	**01-948.0**	**01-949.0**	1	0,001	

mounting dimensions as of page 29

at back

PCB plug-in base

	for	pin orientation	part no.	components layout	kg	
PCB plug-in base 16.4 mm dia. x 9.8 mm high	Low Level switching element	axial	**31-940**	2	0,002	
17.8 mm dia. x 9.8 mm high	snap-action switching element 2.8 mm	axial	**31-942**	4	0,002	
17.9 x 8.4 mm high	Low Level switching element With the extendable mounting the distance between PCB plug-in base and PCB can be varied up to 3mm.	right-angled	**31-941**	3	0,004	

components layouts as of page 29

cable shoe

	connection method	part no.	kg	
cable shoe	plug-in terminal 2.8 x 0.5 mm	**31-946**	0,001	
	universal terminal 2.0 x 0.5 mm	**31-945**	0,001	

connection method: PT = plug-in terminal, UT = universal terminal

insulation socket

	part no.	kg	
insulation socket for connector 31-945	**31-928**	0,001	
for connector 31-946	**31-929**	0,001	
for snap-action switching element 2.8 mm to cover the plug-in terminals	**01-928**	0,001	

terminal cover

	part no.	kg	
terminal cover	**01-929**	0,010	

for illumination

incandescent lamp

	voltage/current	part no.	kg	
incandescent lamp base T 5.5	6 AC/DC/200 mA	**10-1106.1369 (01-903.0)**	0,001	
	12 AC/DC/100 mA	**10-1109.1329 (01-903.1)**	0,001	
	12 AC/DC/50 mA	**10-1109.1279 (01-913.12)**	0,001	
	24 AC/DC/25 mA	**10-1112.1199 (01-913.24)**	0,001	
	24 AC/DC/50 mA	**10-1112.1279 (01-903.2)**	0,001	
	28 AC/DC/40 mA	**10-1113.1249 (01-903.28)**	0,001	
	30 AC/DC/40 mA	**10-1114.1249 (01-903.3)**	0,001	
	36 AC/DC/35 mA	**10-1116.1229 (01-903.4)**	0,001	
	48 AC/DC/25 mA	**10-1119.1199 (01-903.5)**	0,001	
	60 AC/DC/20 mA	**10-1120.1179 (01-903.6)**	0,001	

LED

	number of chips	voltage/current	colour	part no.	kg	
LED base T 5.5	1 chip	12 VDC/14 mA	white	**10-2109.3139**	0,001	
		24 VDC/14 mA	white	**10-2112.3139**	0,001	
		28 VDC/14 mA	white	**10-2113.3139**	0,001	
	6 chips	6 VDC/45 mA	green	**10-5106.3255 (01-968.05)**	0,001	
			red	**10-5106.3252 (01-968.02)**	0,001	
			yellow	**10-5106.3254 (01-968.04)**	0,001	
		12 VDC/30 mA	green	**10-5109.3205 (01-968.15)**	0,001	
			red	**10-5109.3202 (01-968.12)**	0,001	
			yellow	**10-5109.3204 (01-968.14)**	0,001	
		24 VDC/15 mA	green	**10-5112.3145 (01-968.25)**	0,001	
			red	**10-5112.3142 (01-968.22)**	0,001	
			yellow	**10-5112.3144 (01-968.24)**	0,001	
		28 VDC/15 mA	green	**10-5113.3145 (01-968.35)**	0,001	
			red	**10-5113.3142 (01-968.32)**	0,001	
			yellow	**10-5113.3144 (01-968.34)**	0,001	
		48 VDC/14 mA	green	**10-5119.3135 (01-968.45)**	0,001	
			red	**10-5119.3132 (01-968.42)**	0,001	
			yellow	**10-5119.3134 (01-968.44)**	0,001	

capacitor

for lamp voltage reduction

	value	part no.	kg	
capacitor use with 60 VAC/20 mA, 50 Hz lamp voltage	230 VAC/0.27 µF	**02-917.0**	0,004	

Wire in accordance with local electrical safety regulations.

series resistor

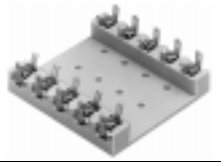
for lamp voltage reduction

	value	part no.	kg	
series resistor use with 60 VAC/20 mA lamp rating	110 V/2.7 kOhm	**02-904.0**	0,003	
	125 V/3.3 kOhm	**02-904.1**	0,003	
	145 V/4.7 kOhm	**02-904.3**	0,003	
	230-240 V/10 kOhm	**02-904.7**	0,003	

Wire in accordance with local electrical safety regulations.

terminal plate empty

for fitting with series resistors and capacitors

	no. of spaces	part no.	kg	
terminal plate empty	5 spaces	**02-912.1**	0,015	
	10 spaces	**02-912.2**	0,045	
	15 spaces	**02-912.3**	0,040	
	20 spaces	**02-912.4**	0,045	

terminal plate with capacitor

	value	no. of components	part no.	kg	
terminal plate with capacitor use with 60 VAC/20 mA lamp rating	0,27 µF/230 VAC/60 VAC	5 spaces	**02-914.10**	0,045	
		10 spaces	**02-914.20**	0,090	
		15 spaces	**02-914.30**	0,135	
		20 spaces	**02-914.40**	0,180	

Wire in accordance with local electrical safety regulations.

terminal plate with series resistor

	value	no. of components	part no.	kg	
terminal plate with series resistor use with 60 VAC/20 mA lamp rating	2.7 kOhm/110/60 V	5 spaces	**02-913.10**	0,040	
		10 spaces	**02-913.20**	0,075	
		15 spaces	**02-913.30**	0,115	
		20 spaces	**02-913.40**	0,155	
	3.3 kOhm/125/60 V	5 spaces	**02-913.11**	0,040	
		10 spaces	**02-913.21**	0,075	
		15 spaces	**02-913.31**	0,115	
		20 spaces	**02-913.41**	0,155	
	10 kOhm/230-240/60 V	5 spaces	**02-913.17**	0,040	
		10 spaces	**02-913.27**	0,075	
		15 spaces	**02-913.37**	0,115	
		20 spaces	**02-913.47**	0,155	

Wire in accordance with local electrical safety regulations.

assembling

lens remover

	part no.	kg	
lens remover	**02-905**	0,011	

lamp remover

	part no.	kg	
lamp remover	**02-906**	0,002	

LED remover

	part no.	kg	
LED remover	**51-996**	0,024	

dressing tool

	part no.	kg	
dressing tool for aligning buttons	**01-906**	0,030	

mounting tool

	part no.	kg	
mounting tool for tightening (or loosening) fixing nuts	**01-907**	0,020	

actuator with snap-action switching element

switching system

Self-cleaning, double-break, snap action switching system. (with contact gap 2 x 0.5 mm).
1 normally closed or 1 normally open contact per element.
snap-action switching elements with soldering terminals at the sides: up to 4 switching element can be on a pushbutton (max. 4 normally closed and 4 normally open contacts).
snap-action switching element with axial plug-in terminals 2,8 mm not stachable, only 1 switching element can be on a pushbutton.

material

actuator case
polyphenylene PPO, self-extinguishing

material of contacts
gold-plated silver

switching element
axial plug-in-/soldering terminal 2.8 mm:
diallyl phthalate DAP, polyamide 66, polysulfone, heat-resistant and self-extinguishing
soldering terminal: PA 6.6 Ultramid

mechanical characteristics

actuating force
2-5.5 N, depending on the number of switching elements

actuating travel
3 mm

ambient air temperature
-25°C to +55°C
for indicators and illuminated pushbuttons mounted as a block , make sure the heat can escape freely
(as per DIN IEC 68-)

connection method
snap-action switching element with tinned soldering terminals at the sides:
max. wire diameter: 2 wires of 1.2 mm
max. wire cross-section of stranded cable: 1x 1 mm^2.
snap-action switching element with axial plug-in terminals, which can also be used as soldering terminals:
plug-in terminal: 2.8 x 0.5 mm
soldering terminal:
max. wire diameter: 2 wires of 1 mm^2
max. wire cross-section of stranded cable: 2 x 0.75 mm^2 or 1 x 1.0 mm^2

degree of protection
front as per IEC 529:
IP 40
IP 67 with spray cover

mechanical life
momentary action 2 million cycles of operation
maintained action 1 million cycles of operation

rebound time
<= 5ms

resistance to climate
standard condition as per IEC 68-2-3 and 2-30
changing condition as per IEC 68-2-14 and 2-33

resistance to shock
(single impacts, semi-sinusoidal)
15 g for 11 ms as per IEC 512-4-3, IEC 68-2-27

resistance to vibration
(sinusoidal)
10 g at 0-2000 Hz, amplitude 1.5 mm as per IEC 512-4-4, IEC 68-2-6

storage temperature
-40°C to + 85°C
(as per DIN IEC 68-)

electrical characteristics

continuous thermal current Ith_2
5 A
The maximum current in continuous operation and at ambient temperature not exceeding the quoted maximum values.

electric strength
2500 VAC, 50 Hz, 1 min. between all terminals and earth, as per IC 512-2-11.

protection class
II

rated current
5 A

rated voltage
250 VAC/VDC

switch rating
250 VAC/5 A (cos φ 1)
250 VAC/3 A (cos φ 0.3)
switch rating AC, cos φ 0,7:

voltage	125 V	250 V
current	3 A	2 A

switch rating DC (inductive), L:R = 30 ms:

voltage	24 V	60 V	110 V	220 V
current	2 A	0,7 A	0,2 A	0,1 A

volume resistance
starting value (initial) <= 50 mΩ

rules

IEC 1058 EN 61 058

approvals

- SEV 250 VAC/5A
- CSA 300 VAC
- UL

actuator with Low Level switching element

switching system

This low level switching element was designed for switching low powers in electronic circuits. The mechanism assures reliable switching of loads ranging from a few µA/µV up to 100 mA/42 VAC/VDC.
Single-break momentary contact, as normally open or normally closed with 4 independent points of contact. 2 momentary contacts per switching element; combination of normally open and normally closed is possible.
Special features are the long life, extremely short rebound time and stable contact resistance.

material

actuator case
polyphenylene PPO, self-extinguishing

material of contacts
gold-plated

switching element
polysulfone, heat-resistant and self-extinguishing

mechanical characteristics

actuating force
3-3.5 N

actuating travel
3 mm

ambient air temperature
-25°C to +55°C
for indicators and illuminated pushbuttons mounted as a block , make sure the heat can escape freely
(as per DIN IEC 68-)

connection method
The universal terminals permit these units to be mounted on printed circuit boards (PCB). These terminals can also be used as soldering or plug-in terminals.
For these terminals we can also supply a plug-in base which, when soldered on to the board, enables the switch to be plugged in.
soldering terminal:
max. wire diameter: 2 wires à 0.8 mm
max. wire cross-section of stranded cable: 1x 0.75 mm^2
plug-in terminal:
2.0 x 0.5 mm

degree of protection
front as per IEC 529:
IP 40
IP 67 with spray cover

mechanical life
momentary action 5 mio. cycles of operation
maintained action 1 mio. cycles of operation

rebound time
Typ. < 100 µs

resistance to climate
standard condition as per IEC 68-2-3 and 2-30
changing condition as per IEC 68-2-14 and 2-33

resistance to shock
(single impacts, semi-sinusoidal)
15 g for 11 ms as per IEC 512-4-3, IEC 68-2-27

storage temperature
-40°C to + 85°C
(as per DIN IEC 68-)

electrical characteristics

electric strength
2500 VAC, 50 Hz, 1 min. between all terminals and earth, as per IC 512-2-11.

protection class
II

switch rating
10 µA/100 µV to 100 mA at 42 VAC/VDC

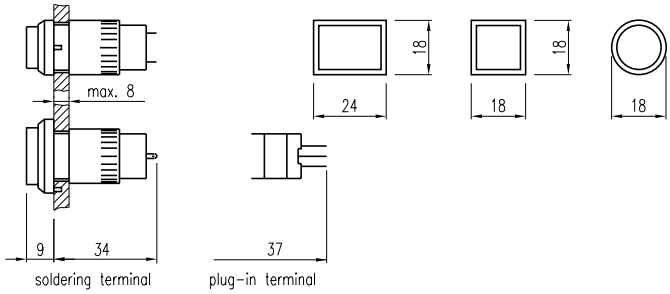
volume resistance
starting value (initial) <= 50 mΩ

rules

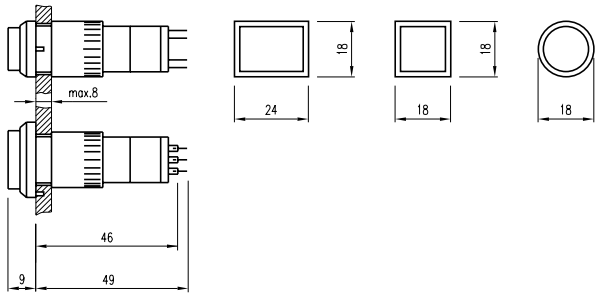
EN 61 058

technical drawing

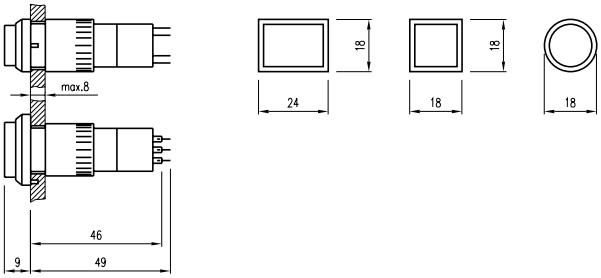
1 indicator
page 17



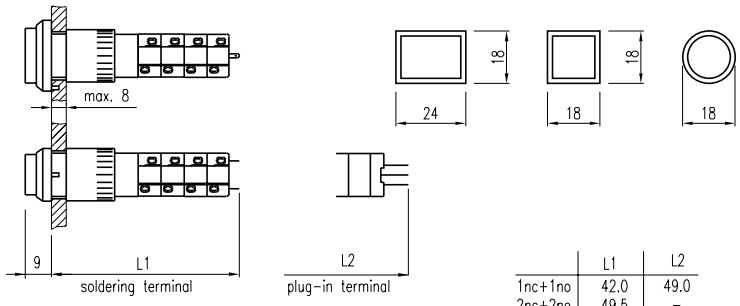
2 indicator
page 17



3 indicator, illuminated-/pushbutton
page 17, 18

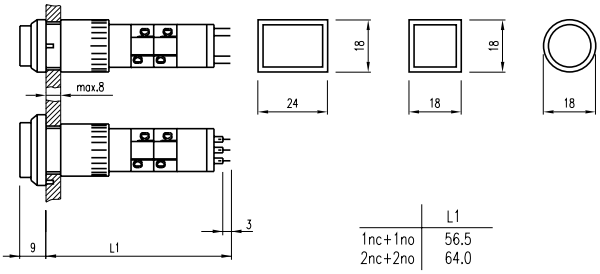


4 illuminated-/pushbutton
page 18



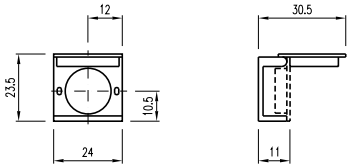
	L1	L2
1nc+1no	42.0	49.0
2nc+2no	49.5	–
3nc+3no	57.0	–
4nc+4no	64.5	–

5 illuminated-/pushbutton
page 18

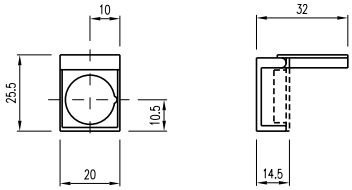


	L1
1nc+1no	56.5
2nc+2no	64.0

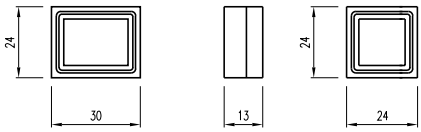
6 protective cover
page 19



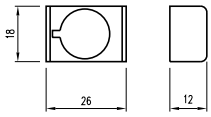
7 protective cover
page 19



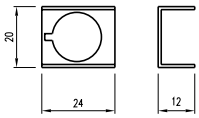
8 sprayproof cover
page 19



9 protective guard
page 20

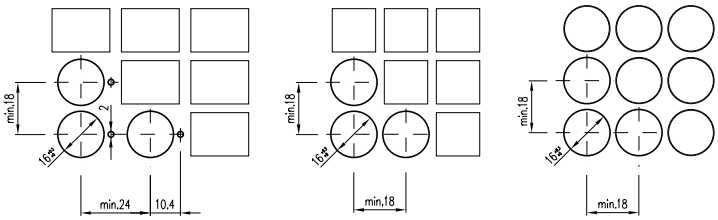


10 protective guard
page 20

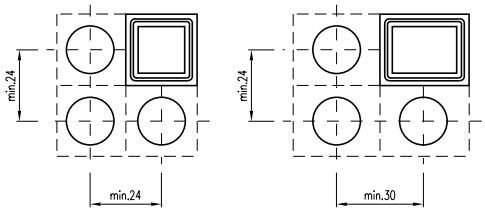


mounting dimension

1 indicator, illuminated-/pushbutton, blind plug
page 17, 18, 20

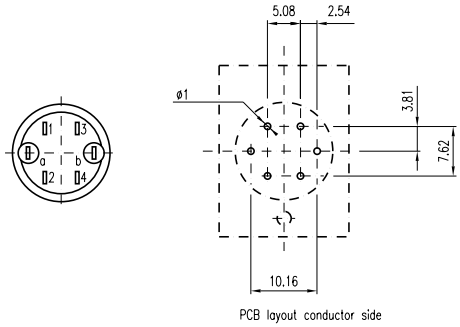


2 sprayproof cover
page 19

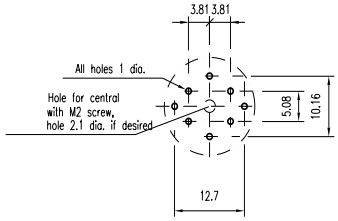


components layouts

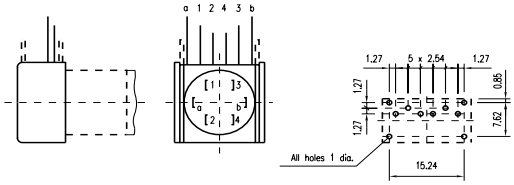
1 indicator, illuminated-/pushbutton
page 17, 18



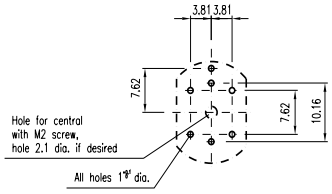
2 PCB plug-in base
page 20

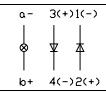
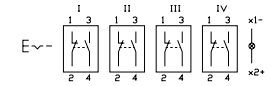
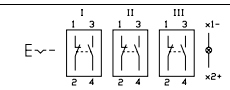
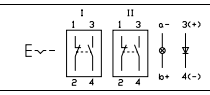
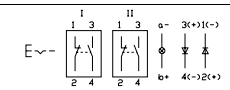
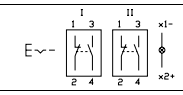
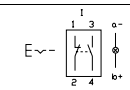
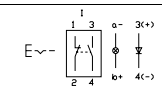
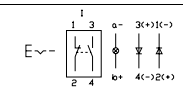
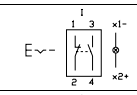
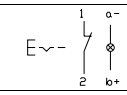
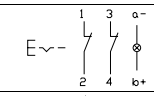
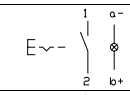
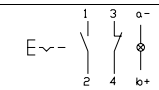
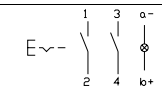
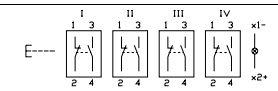
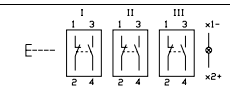


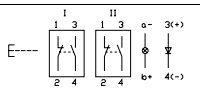
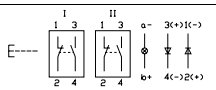
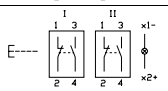
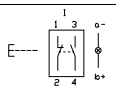
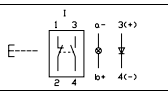
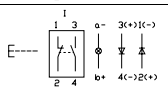
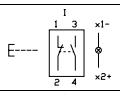
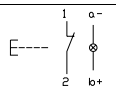
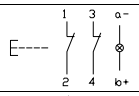
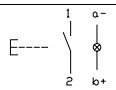
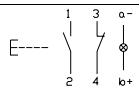
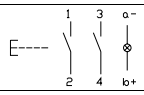
3 PCB plug-in base
page 20



4 PCB plug-in base
page 20

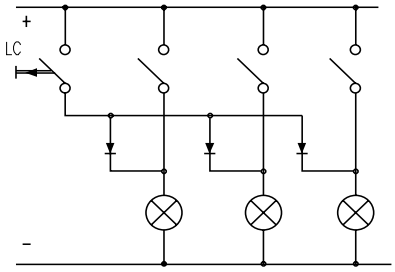


	circuit drawing
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

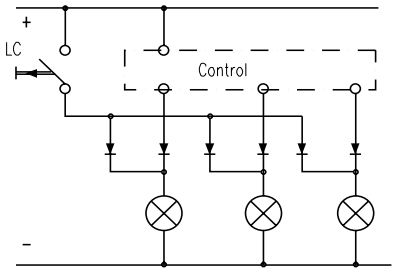
	circuit drawing
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	

With indicators and illuminated pushbuttons equipped with diodes, the user is able to perform a lamp check or wire an alarm circuit simply with a considerable saving of space.

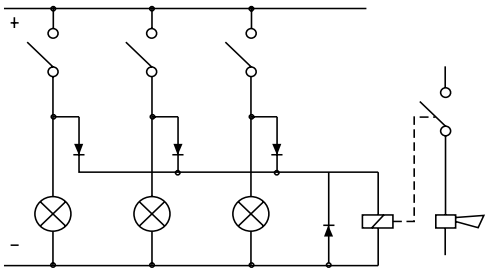
lamp check



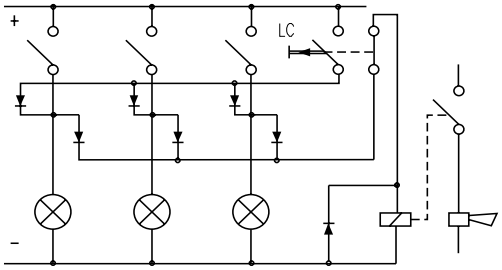
lamp check with blocking diodes



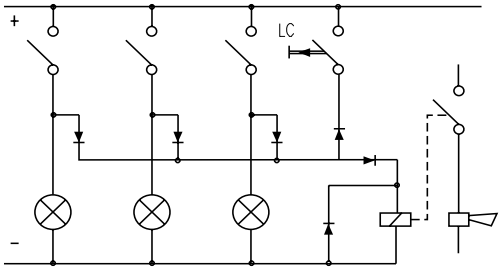
alarm circuit from fault annunciating system



lamp check and alarm circuit



lamp check and alarm circuit with only one diode and AC voltage



LC = lamp check

1. Engraving

Typefaces

In addition to the most commomly used world languages (see DIN 1451) with close spacing, the following typefaces are available: Scandinavian, Slavian, Greek, Russian.

Coloured filling of engraving

Specify whether engraving should be on the diffuser, or on the lens.
Specify the infill colour, character height and the text or symbol orientation.

Symbols

A list of the symbols available can be supplied on request.

2. Hot stamping

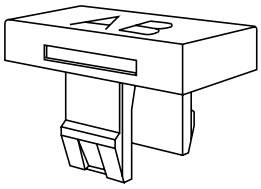
For large batches it is worth while to have the lettering produced by hot stamping.

Typefaces

For letters and figures, typefaces with 2,5 mm, 3 mm and 4 mm are available..

Symbols

A list of the symbols available can be supplied on request.



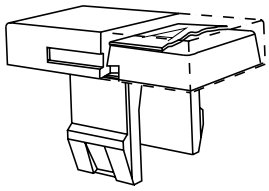
3. Film inserts

Instead of using engraving, the lenses can be fitted with transparent film inserts.
For this purpose, though, it is advisable to use transparent lenses.When a smoked lens is used, the lettering does not become visible until the lens lights.
To insert the film, the feet of the lens support have to be pushed together far enough to enable the lens to be lifted off easily.

Film dimensions

max. 10,2 x 16,2 mm
10,2 x 10,2 mm
12,8 mm

Film thickness 0,2 mm



Important!

Before engraving, check the position of the illuminated pushbuttons or indicator.

Height of letters	Thickness of letters	Horizontal mounting (ABC / abc, h, s)			Vertical mounting (AB / ab, h, s)			(AB / abc, h, s)			(AB / abc, h, s)		
		Number of lines	Number of letters per line	Number of letters per line	Number of lines	Number of letters per line	Number of letters per line	Number of lines	Number of letters per line	Number of letters per line	Number of lines	Number of letters per line	Number of letters per line
h	s		(caps)	(small)		(caps)	(small)		(caps)	(small)		(caps)	(small)
2,5	0,4	3	10	10-11	4	6-7	7	3	6	6	3	6-7	7
3	0,4	2	8-9	9	4	5-6	6	2	5	6	2	5-6	6
4	0,5	2	6	6-7	3	4	4	2	3	4	2	4	4
5	0,5	1	5	5-6	2	3	3-4	1	2	3	1	3	3-4
6	0,6	1	4	4-5	1	2-3	3	1	2	2	1	2-3	3
8	0,6	1	3	3-4	1	2	2	1	2	2	1	2	2

OCEAN CHIPS
Океан Электроники
Поставка электронных компонентов

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения **«JONHON»**, а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов **«FORSTAR»**.

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«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

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ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).

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