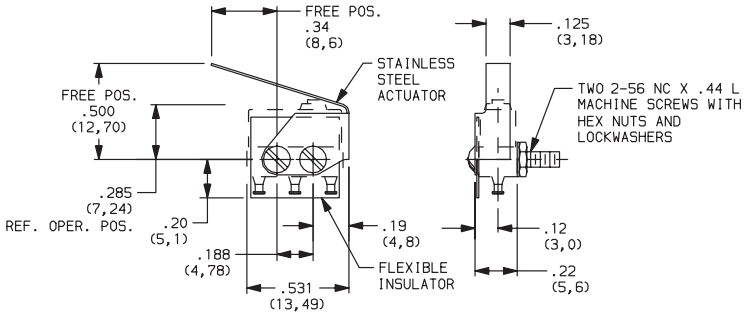
AUXILIARY ACTUATORS

Easy to assemble auxiliary actuators for the MM Series provides the end-user with the capability to operate the switch with force not directly in line with the operating button. Actuators are available in either the plain-leaf or roller-leaf style. Each actuator kit consists of the stainless steel spring-leaf with an integral side mounting plate, flexible insulator, two (2) #2-56 x 7/16" roundhead screws, with lockwashers and hex nuts. Actuator and hardware are supplied unassembled. Specially formed auxiliary actuators are available, consult Customer Service Center.

ALS-1 LEAF



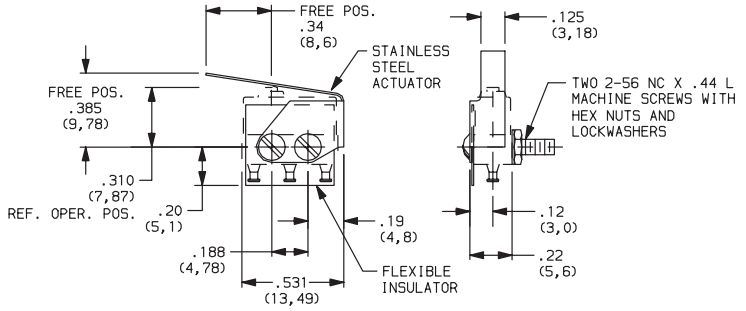


SWITCH CHARACTERISTICS

OPERATING FORCE (MAX)	oz / grams	6 / 170
RELEASE FORCE (MIN)	oz / grams	2 / 56
DIFFERENTIAL TRAVEL (MAX)	in / (mm)	.025 / (0,64)
PRETRAVEL (MAX)	in / (mm)	.110 / (2,79)
OVERTRAVEL (MIN)	in / (mm)	.015 / (0,38)

ALS-2 LEAF (Low Motion)



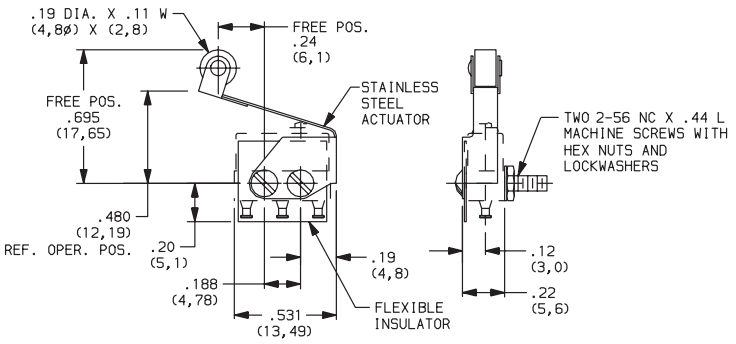


SWITCH CHARACTERISTICS

OPERATING FORCE (MAX)	oz / grams	7 / 198
RELEASE FORCE (MIN)	oz / grams	2 / 56
DIFFERENTIAL TRAVEL (MAX)	in / (mm)	.025 / (0,64)
PRETRAVEL (MAX)	in / (mm)	.225 / (5,72)
OVERTRAVEL (MIN)	in / (mm)	.015 / (0,38)

AWS-1 LEAF ROLLER



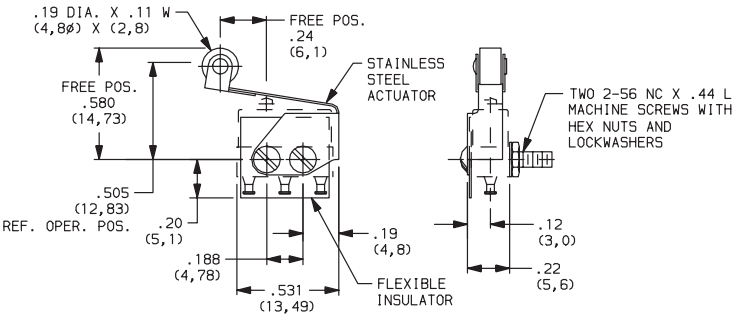


SWITCH CHARACTERISTICS

OPERATING FORCE (MAX)	oz / grams	6 / 170
RELEASE FORCE (MIN)	oz / grams	2 / 56
DIFFERENTIAL TRAVEL (MAX)	in / (mm)	.025 / (0,64)
PRETRAVEL (MAX)	in / (mm)	.110 / (2,79)
OVERTRAVEL (MIN)	in / (mm)	.015 / (0,38)

AWS-2 LEAF ROLLER (Low Motion)





SWITCH CHARACTERISTICS

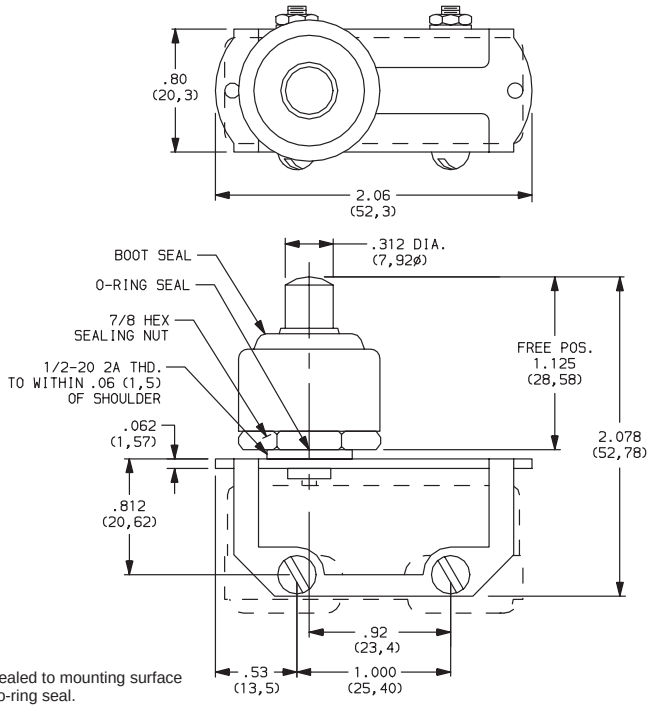
OPERATING FORCE (MAX)	oz / grams	7 / 198
RELEASE FORCE (MIN)	oz / grams	2 / 56
DIFFERENTIAL TRAVEL (MAX)	in / (mm)	.025 / (0,64)
PRETRAVEL (MAX)	in / (mm)	.225 / (5,72)
OVERTRAVEL (MIN)	in / (mm)	.015 / (0,38)

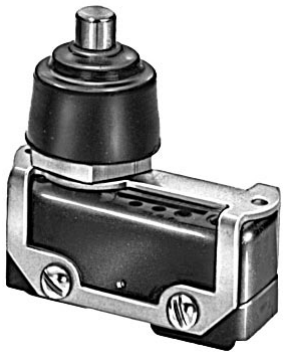
AUXILIARY ACTUATORS

Basic precision HB Series switches, with any terminal style, can be used with these attachable actuators. As supplied, the actuator is not assembled to the switch; the switch must be ordered separately. The actuator can be assembled to the switch before mounting, or the actuator can be mounted on the panel or chassis and the switch installed after wiring. Assembly screws, nuts and lockwashers are furnished.

BB-1 SEALED PLUNGER (For use with P0 actuator option.)

BB-2 SEALED PLUNGER (For use with PS sealed actuator option.)

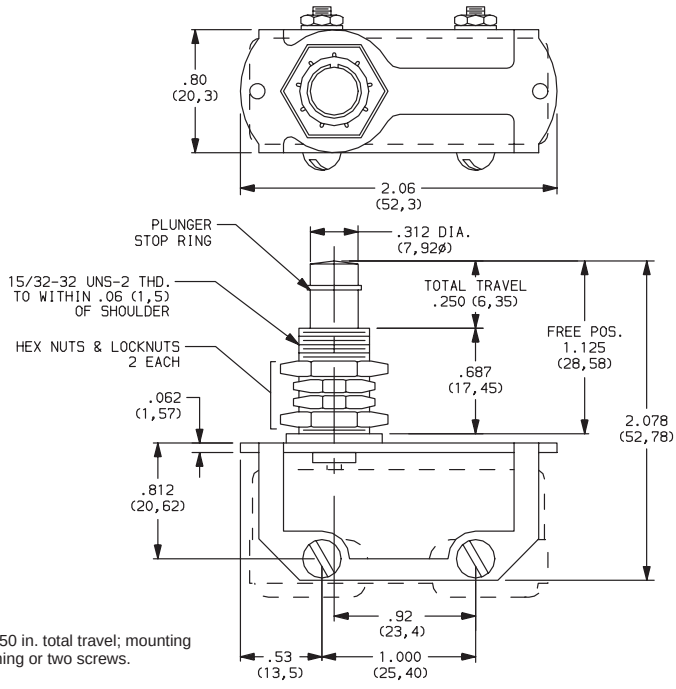


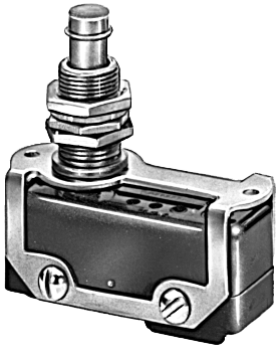


Actuator assembly sealed to mounting surface by flexible boot and o-ring seal.

BJ-1 OVERTRAVEL PLUNGER (For use with P0 actuator option.)

BJ-2 OVERTRAVEL PLUNGER (For use with PS sealed actuator option.)

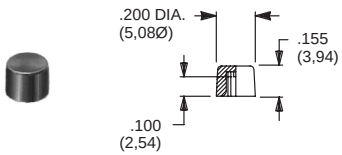




Provides up to .250 in. total travel; mounting by threaded bushing or two screws.

CAPS

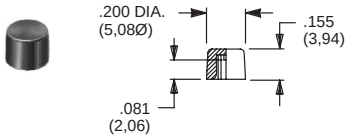
EP & TP SERIES, .100" DIA. PLUNGERS



PART NO.

508101000	WHITE
508102000	BLACK
508103000	RED

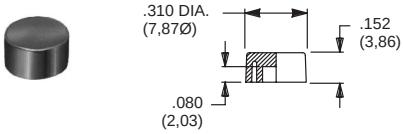
TP SERIES, .100" DIA. PLUNGERS
(Recommended for S9 plunger)



PART NO.

538701000	WHITE
538702000	BLACK
538703000	RED

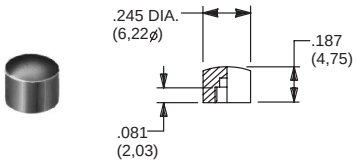
EP & TP SERIES, .100" DIA. PLUNGERS



PART NO.

465801000	WHITE
465802000	BLACK
465803000	RED

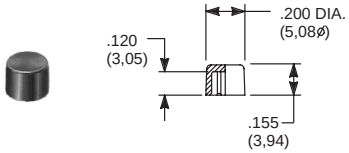
8600 & KM33 SERIES, .106" DIA. PLUNGERS



PART NO.

785101000	WHITE
785102000	BLACK
785103000	RED

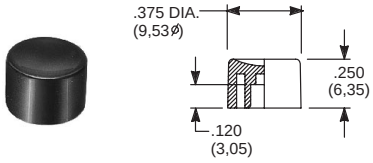
8020, 8060, E010, E020, KM11, L & TP SERIES, .122" DIA. PLUNGERS



PART NO.

708901000	WHITE
708902000	BLACK
708903000	RED

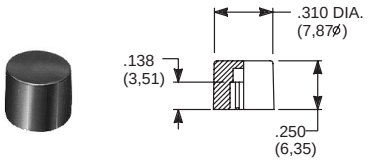
8020, 8060, E010, E020, KM11 & L SERIES, .122" DIA. PLUNGERS



PART NO.

752701000	WHITE
752702000	BLACK
752703000	RED

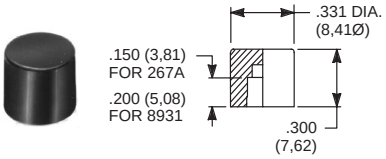
8020, 8060, E010, E020, KM11, L & TP SERIES .122" DIA. PLUNGERS



PART NO.

801801000	WHITE
801802000	BLACK
801803000	RED

.157" DIA. PLUNGERS



PART NO.

267A01000	WHITE
267A02000	BLACK
267A03000	RED

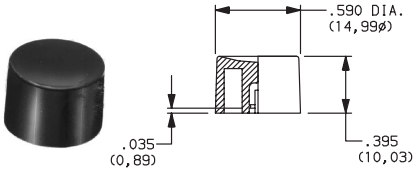
FOR SERIES
85X2T, 8534T
Models only

PART NO.

893101000	WHITE
893102000	BLACK
893103000	RED

FOR SERIES
85X1T, 8532T1,
8533T, 8534T1 Models only

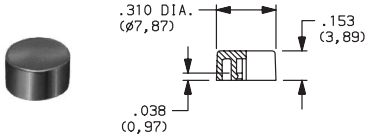
8020, 8050, E010, E020 & L SERIES, .122" DIA. SNAP-FITTING PLUNGERS



PART NO.

894001000	WHITE
894002000	BLACK
894003000	RED

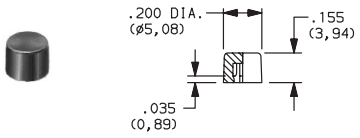
EP11 & EP12 MODELS, .100 DIA. SNAP-FITTING PLUNGERS



PART NO.

585A01000	WHITE
585A02000	BLACK
585A03000	RED

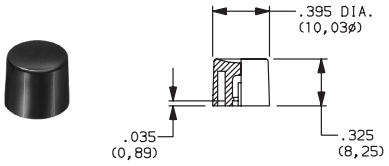
EP11 & EP12 MODELS, .100 DIA. SNAP-FITTING PLUNGERS



PART NO.

785A01000	WHITE
785A02000	BLACK
785A03000	RED

8020, 8050, E010, E020 & L SERIES, .122" DIA. SNAP-FITTING PLUNGERS



PART NO.

894101000	WHITE
894102000	BLACK
894103000	RED

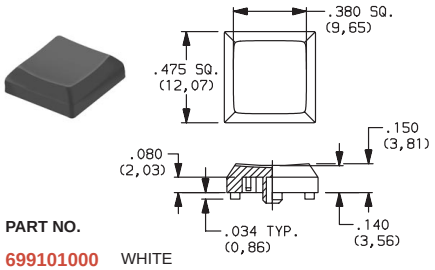
MATERIAL

Nylon. Finish: Gloss.

Special colors, custom markings available, consult Customer Service Center.

CAPS

KA SERIES, K1 CRUCIFORM ACTUATORS

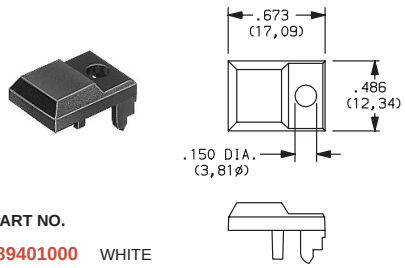


PART NO.

699101000	WHITE
699102000	BLACK
699103000	RED

MATERIAL
Nylon; Finish: Matte

MP SERIES

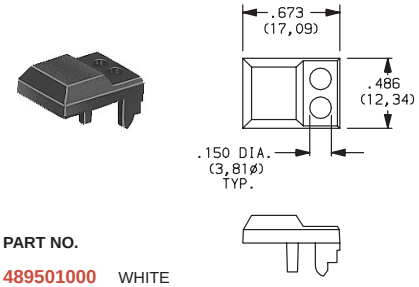


PART NO.

489401000	WHITE
489402000	BLACK
489403000	RED

MATERIAL
Polycarbonate-ABS blend; Finish: Matte

MP SERIES WITH TWO LED

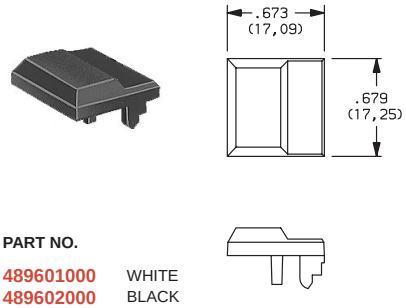


PART NO.

489501000	WHITE
489502000	BLACK
489503000	RED

MATERIAL
Polycarbonate-ABS blend; Finish: Matte

MP SERIES WITHOUT LED

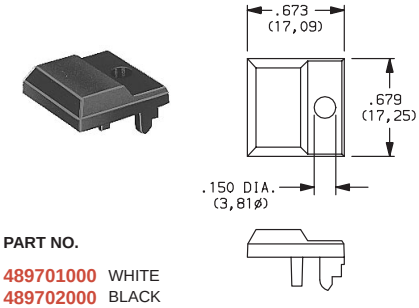


PART NO.

489601000	WHITE
489602000	BLACK
489603000	RED

MATERIAL
Polycarbonate-ABS blend; Finish: Matte

MP SERIES WITH LED

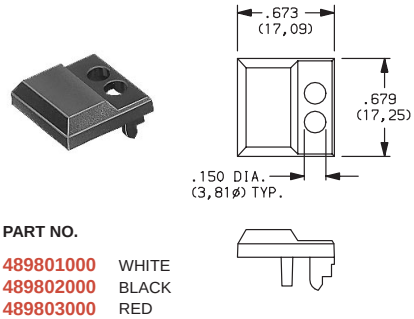


PART NO.

489701000	WHITE
489702000	BLACK
489703000	RED

MATERIAL
Polycarbonate-ABS blend; Finish: Matte

MP SERIES WITH TWO LED

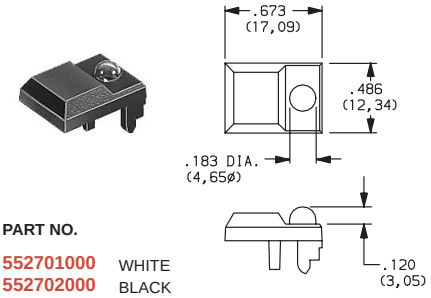


PART NO.

489801000	WHITE
489802000	BLACK
489803000	RED

MATERIAL
Polycarbonate-ABS blend; Finish: Matte

MP SERIES, ANTI-STATIC WITH TRANSPARENT LENS

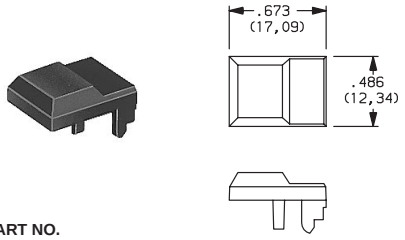


PART NO.

552701000	WHITE
552702000	BLACK
552703000	RED

MATERIAL
Polycarbonate-ABS blend; Finish: Matte

MP SERIES

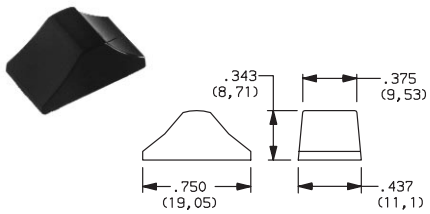


PART NO.

489301000	WHITE
489302000	BLACK
489303000	RED

MATERIAL
Polycarbonate-ABS blend; Finish: Matte

S SERIES, 03 ACTUATOR

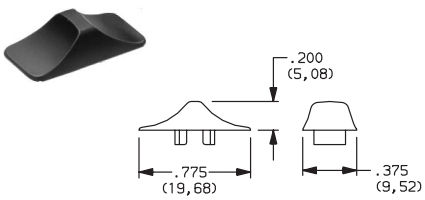


PART NO.

121000101	WHITE
121000102	BLACK
121000103	RED

MATERIAL
6/6 Nylon; Finish: Gloss

S SERIES, C1-C9 ACTUATORS

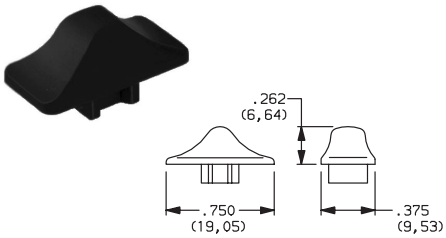


PART NO.

121160100	WHITE
121160200	BLACK
121160300	RED

MATERIAL
6/6 NYLON; Finish: Matte

L SERIES

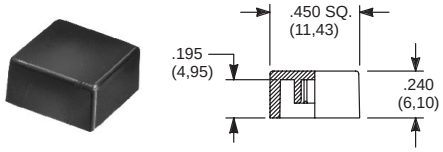


PART NO.

120100602	BLACK

MATERIAL
6/6 Nylon; Finish: Matte

.122" DIA. PLUNGERS



GLOSS

PART NO.

484601000	WHITE
484602000	BLACK
484603000	RED

FOR SERIES
8020, 8060, E010, E020, KM11, L, TP.

MATTE

PART NO.

798201000	WHITE
798202263	BLACK
798203000	RED

FOR SERIES
8020, 8060, E010, E020, KM11, L, TP.

Special colors, custom markings available, consult Customer Service Center.

C&K Hardware

CAPS

7000, 9000 & E SERIES TOGGLE CAPS



PART NO.

896801000	WHITE
896802000	BLACK
896803000	RED

Material: Polyethylene

7000 SERIES TOGGLE CAPS

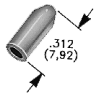


PART NO.

763701000	WHITE
763702000	BLACK
763703000	RED

Material: Vinyl

7000, 9000, E & ET SERIES TOGGLE CAPS



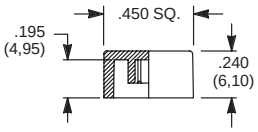
PART NO.

706201000	WHITE
706202000	BLACK
706203000	RED

Material: Vinyl

8500 SERIES, .157" DIA. PLUNGERS



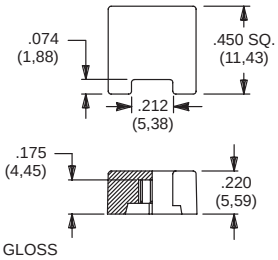


PART NO.

448901000	WHITE
448902000	BLACK
448903000	RED

8020 & 8060 SERIES, .122" DIA. PLUNGERS





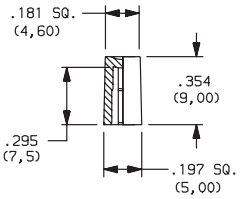
MATTE GLOSS

PART NO. **PART NO.**

459701000	476801000	WHITE
459702000	476802000	BLACK
459703000	476803000	RED

PN SERIES, .110" SQ. PLUNGERS





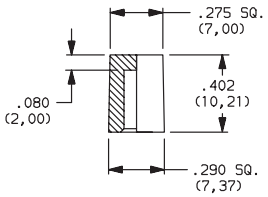
PART NO.

979A01000	WHITE
979A02000	BLACK
979A03000	RED

MATERIAL
ABS

PN SERIES, .130" SQ. PLUNGERS





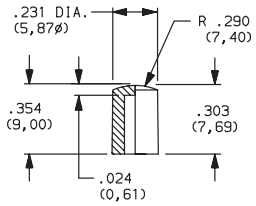
PART NO.

980A01000	WHITE
980A02000	BLACK
980A03000	RED

MATERIAL
ABS

PN SERIES, .110" SQ. PLUNGERS





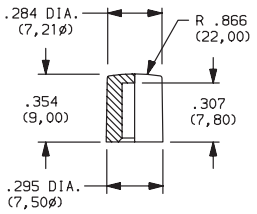
PART NO.

981A01000	WHITE
981A02000	BLACK
981A03000	RED

MATERIAL
ABS

PN SERIES, .130" SQ. PLUNGERS





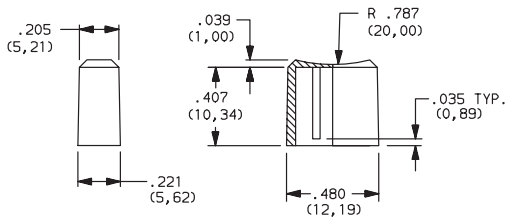
PART NO.

982A01000	WHITE
982A02000	BLACK
982A03000	RED

MATERIAL
ABS

PN SERIES, .130" SQ. PLUNGERS





PART NO.

983A01000	WHITE
983A02000	BLACK
983A03000	RED

MATERIAL
ABS

MATERIAL

Nylon. Finish: Matte or gloss.

Special colors, custom markings available, consult Customer Service Center.

CODED SWITCHES – BLANK (INACTIVE) SECTIONS

3U SERIES BLANK SECTION, .302" THK.
(Replaces active section.)



PART NO.

123B002000	BLACK
123B009000	GRAY

3P SERIES BLANK SECTION, .300" THK.



PART NO.

663702000	BLACK
663709000	GRAY

S2 SERIES BLANK SECTION, .315" THK.



2127

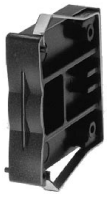


2290

PART NO.

212702000	PLAIN-BLACK
229002000	W/RIB-BLACK

3 SERIES FRONT MOUNT, TYPE 0 & 3,
.315" THK.



PART NO.

413602000	W/RIB-BLACK
413609000	W/RIB-GRAY
400502000	W/RIB & W/OUT SPRINGS-BLACK
400509000	W/RIB & W/OUT SPRINGS GRAY

3 SERIES FRONT MOUNT, TYPE 0 & 3,
.315" THK.



PART NO.

413502000	PLAIN-BLACK
413509000	PLAIN-GRAY
400702000	PLAIN W/OUT SPRINGS-BLACK
400709000	PLAIN W/OUT SPRINGS GRAY

3 SERIES REAR MOUNT, TYPE 1,
.350" THK.



4006



4008

PART NO.

400602000	W/RIB-BLACK
400609000	W/RIB-GRAY
400802000	PLAIN-BLACK
400809000	PLAIN-GRAY

3 SERIES REAR MOUNT, TYPE 2,
.350" THK.



4734



4733

PART NO.

473402000	W/RIB-BLACK
473409000	W/RIB-GRAY
473302000	PLAIN-BLACK
473309000	PLAIN-GRAY

CODED SWITCHES – END PLATES

S2 SERIES REAR MOUNT, MOUNTING STYLE S2S WITH .157" (4MM) FLANGE



PART NO.

211702000	BLACK	Two required for complete assembly.
211709000	GRAY	

S2 SERIES REAR MOUNT, MOUNTING STYLE S2R WITH .315" (8MM) FLANGE



PART NO.

211802000	BLACK	Two required for complete assembly.
211809000	GRAY	

S2 SERIES REAR MOUNT, MOUNTING STYLE S2T WITH NO FLANGE



PART NO.

212002000	BLACK	Two required for complete assembly.
212009000	GRAY	

S2 SERIES FRONT MOUNT, MOUNTING STYLE S2F



PART NO.

211902000	BLACK	Two required for complete assembly.
211909000	GRAY	

3U SERIES



LEFT-with hole



RIGHT-with pin

PART NO.

113B02000	LEFT-BLACK	
113B09000	LEFT-GRAY	
114B02000	RIGHT-BLACK	One left and one right piece required for complete assembly.
114B09000	RIGHT-GRAY	

3 SERIES FRONT MOUNT, TYPE 3



PART NO.

655702000	BLACK	Two required for complete assembly.
655709000	GRAY	

3 SERIES FRONT MOUNT, TYPE 0



PART NO.

413402000	BLACK	Two required for complete assembly.
413409000	GRAY	

3 SERIES REAR MOUNT, TYPE 1



PART NO.

400402000	BLACK	Two required for complete assembly.
400409000	GRAY	

3 SERIES REAR MOUNT, TYPE 2



PART NO.

473202000	BLACK	Two required for complete assembly.
473209000	GRAY	

3P SERIES



LEFT-with hole



RIGHT-with pin

PART NO.

623502000	LEFT-BLACK	
623509000	LEFT-GRAY	
623602000	RIGHT-BLACK	One left and one right piece required for complete assembly.
623609000	RIGHT-GRAY	

CODED SWITCHES – SPACERS

3P SERIES, .100" THK.
(Makes section pitch .400")



PART NO.

663602000 BLACK
663609000 GRAY

3 SERIES FRONT MOUNT-FITS TYPE 0 & 3,
.185" THK. (Makes section pitch .500")



PART NO.

410602000 BLACK
410609000 GRAY

3 SERIES FRONT MOUNT, FITS TYPE 0 & 3,
.078" THK. (Makes section pitch 10mm)



PART NO.

410802000 BLACK
410809000 GRAY

3 SERIES REAR MOUNT, FITS TYPE 1,
.150" THK. (Makes section pitch .500")



PART NO.

410702000 BLACK
410709000 GRAY

3 SERIES REAR MOUNT, FITS TYPE 2,
.150" THK. (Makes section pitch .500")



PART NO.

473602000 BLACK
473609000 GRAY

HARDWARE FOR FIELD ASSEMBLY-3 SERIES ONLY.

SCREWS FOR FIELD ASSEMBLY OF THUMBWHEEL SWITCHES
(2 screws needed per assembly + 403500000 nuts)

SCREW PART NUMBER (0–80 UNF THD. SIZE)	NUMBER OF SECTIONS IN ASSEMBLY				
	FRONT MOUNTING			REAR MOUNTING	
	MTG. STYLE – 00, 30	MTG. STYLE – 03, 33	MTG. STYLE – 04, 34	MTG. STYLE – 10, 20	MTG. STYLE – 14, 24
412700000	1 – 2	1	1	1 – 2	1
412701000	3 – 4	2 – 3	2	3	2
412702000	5 – 7	4 – 5	3 – 4	4 – 6	3 – 4
412703000	8 – 10	6 – 8	5 – 6	7 – 9	5 – 6
412704000	11 – 13	9 – 10	7 – 8	10 – 12	7 – 8
412705000	14 – 16	11 – 13	9 – 10	13 – 15	9 – 10

See 3 series mounting styles, pages J-11 thru J-14.

NUT



PART NO.

403500000

Two nuts required per assembly and screws.

NUT DRIVER (For 403500000 nut)



PART NO.

406100652

Not required for assembly.
Not supplied with sample pieces.

C&K Hardware

FIXING SPANNERS

RAFI 15.2mm, Lumotast 75 & 8.1mm



PART NO.
5.58002.0190000

DESCRIPTION
Tool used to secure switch to panel.
Tightens threaded fixing ring.

PART NO.
5.58002.0270000

DESCRIPTION
Tool used to secure switch to panel.
Tightens threaded fixing ring.

RAFIX 16



PART NO.
5.58002.0340000

DESCRIPTION
Tool used to secure switch to panel.
Tightens hexagon nut.

FRAMES

7000 & E SERIES
J11, J21 ACTUATORS



Material: Spring Steel.

PART NO.

764500223	BRIGHT CHROME
764500252	SATIN CHROME
764500746	BLACK ENAMEL
764500747	WHITE ENAMEL
764601106	RETAINING SPRING

7000 & E SERIES
J16, J26 ACTUATORS



Material: Nylon.
Finish: Matte.

PART NO.

459101000	WHITE
459102000	BLACK
459103000	RED

7000, 8020, 8060 & 8500 SERIES
J51, J61, J81, J83, J85, J86, J91 ACTUATORS



Material: Nylon.
Finish: Matte.

PART NO.

615601000	WHITE
615602263	BLACK
615603000	RED

J19 ACTUATOR



Material: Spring Steel.

PART NO.

781000223	BRIGHT CHROME
781000252	SATIN CHROME
781000746	BLACK ENAMEL
781000747	WHITE ENAMEL

7000 & 9000 SERIES
J37, J47, J57 ACTUATORS



Material: Spring Steel.

PART NO.

445400223	BRIGHT CHROME
445400252	SATIN CHROME
445400746	BLACK ENAMEL
445400747	WHITE ENAMEL

7000, 8020, 8060 & 8500 SERIES
J52, J62, J82, J84, J92 ACTUATORS

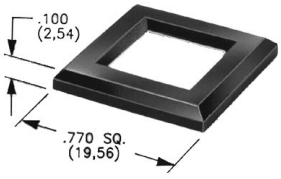


Material: Nylon.
Finish: Matte.

PART NO.

613301000	WHITE
613302263	BLACK
613303000	RED

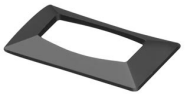
J50, J60, J80, J83, J90 ACTUATORS



Material: Nylon.
Finish: Matte or Gloss.

MATTE	GLOSS	
PART NO.	**PART NO.**	
486701000	486801000	WHITE
486702000	486802000	BLACK
486703000	486803000	RED

7000 SERIES
J76 ACTUATORS



Material: Nylon.
Finish: Matte.

PART NO.

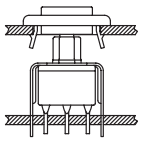
724A01000	WHITE
724A02000	BLACK
724A03000	RED

Special colors, custom markings available, consult Customer Service Center.

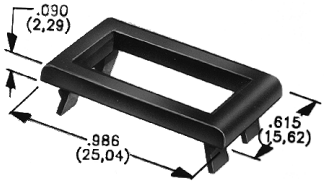
FRAMES—SEPARATE SNAP-IN

Frames snap into panel opening and are independent from switch mounting. Accurate positioning of the PC mounted switch relative to the panel opening is necessary to provide proper clearance between actuator and frame. Available in two basic styles and four panel thicknesses .047-.125 in. Material: Nylon. Finish: Matte.

TYPICAL APPLICATION

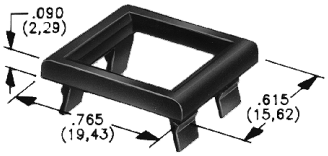


7000 & E SERIES
J1, J2 ACTUATORS



.047" (1,19) PANEL THK.	.062" (1,57) PANEL THK.	.090" (2,29) PANEL THK.	.125" (3,18) PANEL THK.	
PART NO.	**PART NO.**	**PART NO.**	**PART NO.**	
452901000	452701000	452801000	452601000	WHITE
452902263	452702263	452802263	452602263	BLACK
452903000	452703000	452803000	452603000	RED

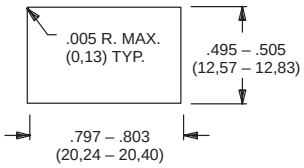
7000, 8020, 8060, 8500, E, E010, E020 & TP SERIES
J50, J60, J80, J90 ACTUATORS



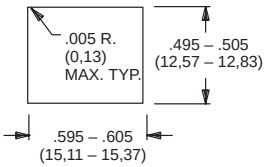
.047" (1,19) PANEL THK.	.062" (1,57) PANEL THK.	.090" (2,29) PANEL THK.	.125" (3,18) PANEL THK.	
PART NO.	**PART NO.**	**PART NO.**	**PART NO.**	
432501000	432601000	432701000	432801000	WHITE
432502263	432602263	432702263	432802263	BLACK
432503000	432603000	432703000	432803000	RED

PANEL MOUNTING

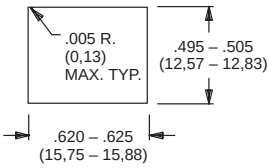
4529, 4527, 4528, 4526



4325, 4326



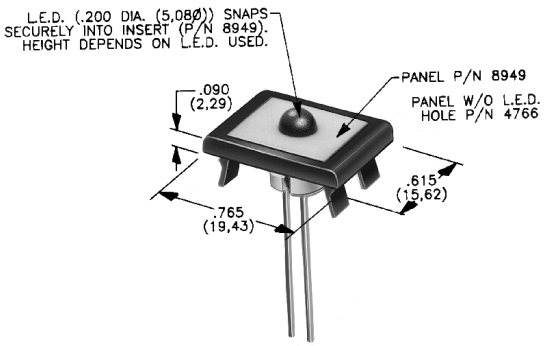
4327, 4328



PANEL INSERTS

(WILL FIT SEPARATE SNAP-IN FRAMES FOR J50, J60, J90 ACTUATORS).

Above frames (part nos. 432XXXXXX) are also available with insert which accepts LED for indicator light assembly. Order insert separately from frame. Blank insert panel (without hole for LED) also available. LED not included, see page L-17 for LED information and recommendations.



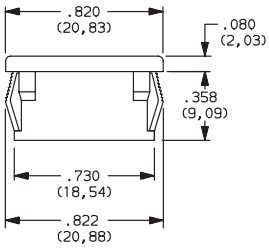
PANEL INSERT WITH HOLE FOR LED	BLANK PANEL INSERT WITHOUT HOLE FOR LED	
PART NO.	**PART NO.**	
894901000	476601000	WHITE
894902000	476602000	BLACK
894903000	476603000	RED

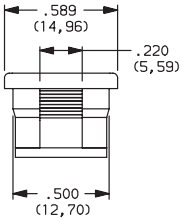
Special colors, custom markings available, consult Customer Service Center.

INSERT

D SERIES







PART NO.
057190200

MATERIAL
Zinc nylon 6/6
Finish: Matte

KEYS



4 TUMBLER

PART NO. (ONE KEY)
115140126

MATERIAL
Brass; Finish: Nickel plate

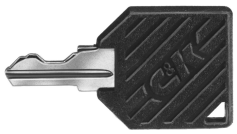
FOR SERIES
A, H, P, W, Y, YL
Key Code: A126

5 TUMBLER

PART NO. (ONE KEY)
115441001

MATERIAL
Brass; Finish: Nickel plate

FOR SERIES
A, BY, GY, H, Y, YL
Key Code: D001



4 TUMBLER

PART NO. (ONE KEY)

11599112601	WHITE
11599112602	BLACK
11599112603	RED
11599112600	BEIGE

MATERIAL
Brass; Finish: Nickel plate;
6/6 Nylon insert molded head

FOR SERIES
A, H, P, W, Y, YL
Key Code: A126

5 TUMBLER

PART NO. (ONE KEY)

11622100101	WHITE
11622100102	BLACK
11622100103	RED
11622100100	BEIGE

MATERIAL
Brass; Finish: Nickel plate;
6/6 Nylon insert molded head

FOR SERIES
A, BY, GY, H, Y, YL
Key Code: D001

A, H, W, Y & YL SERIES
KEY CODE: AAAA



PART NO. (ONE KEY)
1110801

MATERIAL
Zinc alloy;
Finish: Chrome plate

PF, PL & PM SERIES
KEY CODE: 041



PART NO. (ONE KEY)

16916004101	WHITE
16916004102	BLACK
16916004103	RED
16916004100	BEIGE

MATERIAL
Brass; Finish: Nickel plate;
6/6 Nylon insert molded head

YF & YM SERIES
KEY CODE: 0029



PART NO. (ONE KEY)
119091029

MATERIAL
Brass; Finish: Nickel plate

BY, GY SERIES
KEY CODE: 3434



PART NO. (ONE KEY)
11630CKBYST

MATERIAL
Zinc alloy;
Finish: Chrome plate

A, BY, H, P, W, Y & YL SERIES
Key Code: A126



PART NO. (ONE KEY)

16564112601	WHITE
16564112602	BLACK
16564112603	RED
16564112600	BEIGE

MATERIAL
Brass; Finish: Nickel plate;
6/6 Nylon insert molded head

RAFI LUMOTAST 75



PART NO. (ONE KEY)
5.58004.7210000

RAFIX 16



PART NO. (ONE KEY)
5.58007.0010000

LAMP EXTRACTORS



PART NO.
1.90900.0010000

FOR SERIES
RAFI 8.1 mm Illuminated Pushbutton

DESCRIPTION
Tool used to remove lamps or LEDs from switches.

PART NO.
1.90900.0020000

FOR SERIES
RAFI Lumotast® 75

DESCRIPTION
Tool used to remove lamps or LEDs from switches.

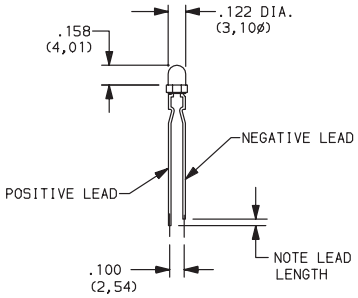
PART NO.
1.90900.0030000

FOR SERIES
RAFIX 16

DESCRIPTION
Tool used to remove lamps or LEDs from switches.

LEDS & FILAMENT LAMPS

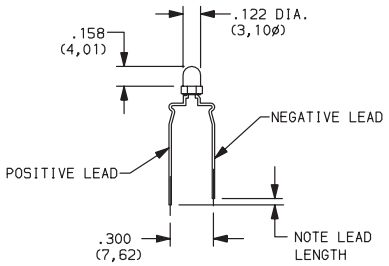
MP SERIES
02, R2 & S2 CAP STYLES



PART NO.

498703615	RED
498705615	YELLOW
498706615	GREEN

MP SERIES
01, A1, A2 & S1 CAP STYLES



PART NO.

498703614	RED
498705614	YELLOW
498706614	GREEN

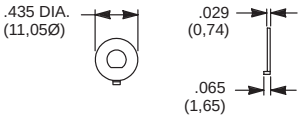
LED PART NUMBER	DESCRIPTION	COLOR	BASE	VOLTAGE U_B	FORWARD CURRENT I_F	FOR SERIES	LAMP EXTRACTOR PART NUMBER
1.90691.0260000 1.90691.0270000 1.90691.0280000	1 Chip LED	Red Green Yellow	Bi-pin T1	DC*	10 mA	8.1mm Illuminated Pushbutton	1.90900.0010000
1.90692.0010000 1.90692.0020000 1.90692.0030000	1 Chip LED	Red Green Yellow	T4.5	DC*	10 mA	Lumotast® 75	1.90900.0010000
1.90692.0450000 1.90692.0460000 1.90692.0470000	6 chip LED	Red Green Yellow	W 2x4.6 d	24 +10% AC/DC max.	12 mA	RAFIX 16	1.90900.0030000

*Must install a suitable external series resistor.

FILAMENT LAMP	PART NUMBER	DESCRIPTION	BASE	RATED VOLTAGE	RATED CURRENT (A or mA)	RATED POWER (W)	AVERAGE OPERATING LIFE (Hrs.)	FOR SERIES	LAMP EXTRACTOR PART NUMBER
	1.90100.0210000 1.90100.0220000 1.90100.0230000	Miniature Telephone Filament Lamp	T 4.5	6 V 12 V 24 V	0.05 A 0.04 A 0.02 A	0.3 0.48 0.48	10,000 10,000 8,000	Lumotast® 75	1.90900.0020000
	1.90120.0130000 1.90120.0120000 1.90120.0110000 1.90120.0090000	Filament Lamp	W 2x4.6 d	6 V 12 V 24 V 60 V	0.20 A 0.08 A 0.04 A 0.02 A	1.2 1.2 1.2 1.2	20,000 15,000 7,000 3,300	RAFIX 16	1.90900.0030000
	1.90180.4710000 1.90180.4720000 1.90180.4730000	Indicator Lamp T1	Bi-pin	6 V 12/14 V 24/28 V	0.05 A 0.03 A 0.016 A	0.3 0.4-.56 0.4-.56	50,000 20,000 5,000	8.1 mm Illum. Pushbuttons	1.90900.0010000

LOCKING RINGS

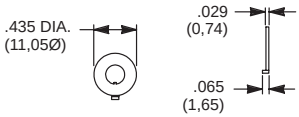
T & TP SERIES
FITS 10-48 BUSHING



PART NO.

465000201 NICKEL PLATED WITH FLAT

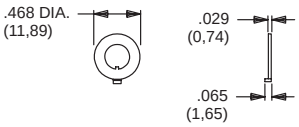
7000, 8020, 8060, 8500, 9000, M, T & TP SERIES
FITS 1/4-40 BUSHING



PART NO.

700701201 NICKEL PLATED WITH KEYWAY
700701264 BLACK WITH KEYWAY

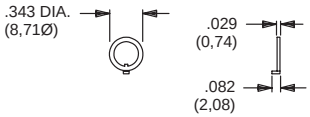
T & TP SERIES
FITS 10-48 BUSHING



PART NO.

465101201 NICKEL PLATED WITH KEYWAY

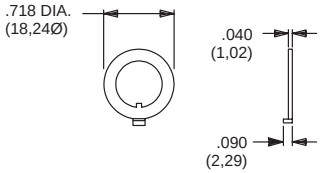
7000, 8020, 8060, 8500, 9000, M, T & TP SERIES
FITS 1/4-40 BUSHING



PART NO.

753700201 NICKEL PLATED WITH KEYWAY
753700264 BLACK WITH KEYWAY

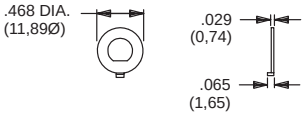
7000, 8500 & 9000 SERIES
FITS 15/32 BUSHING



PART NO.

707200201 NICKEL PLATED WITH KEYWAY
707200264 BLACK WITH KEYWAY

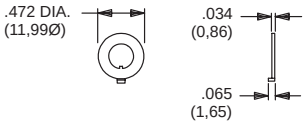
7000, 8020, 8060, 8500, 9000, M, T & TP SERIES
FITS 1/4-40 BUSHING



PART NO.

757200201 NICKEL PLATED WITH FLAT
757200264 BLACK WITH FLAT

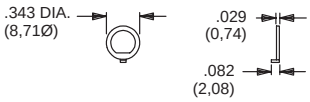
7000, 8020 & 8060 SERIES
FITS M6P2 METRIC BUSHING



PART NO.

791800201 NICKEL PLATED WITH KEYWAY
791800264 BLACK WITH KEYWAY

7000, 8020, 8060, 8500, 9000, M, T & TP SERIES
FITS 1/4-40 BUSHING



PART NO.

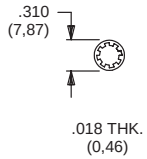
757300201 NICKEL PLATED WITH FLAT
757300264 BLACK WITH FLAT

MATERIAL

Brass, nickel plated standard. Other finishes available, consult Customer Service Center.

LOCKWASHERS

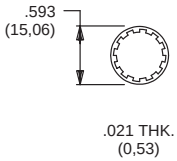
FITS 10-48 BUSHING



PART NO.

465200202 NICKEL PLATED

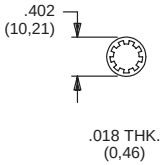
FITS 15/32 BUSHING



PART NO.

700302202 NICKEL PLATED
700302264 BLACK

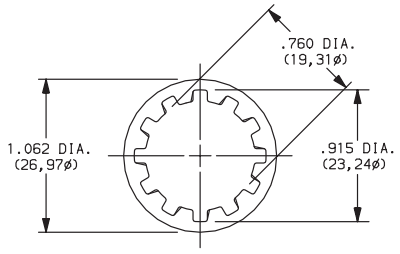
FITS 1/4-40 BUSHING



PART NO.

700303202 NICKEL PLATED
700303264 BLACK

A, BY, GY, H, W, Y & YL SERIES
FITS 3/4 DIA. BUSHING



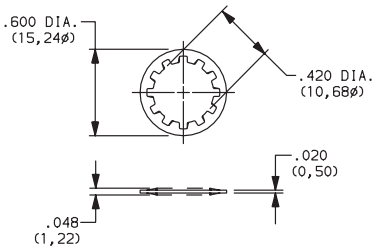


PART NO.

175050200 NICKEL PLATED

MATERIAL
Steel; Finish: Zinc plate

A SERIES
FITS 3/8 DIA. THREAD



PART NO.

472800202

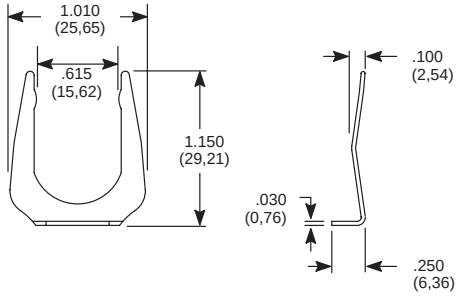
MATERIAL
Steel; Finish: Zinc plate

MATERIAL

Steel, nickel plated standard. Other finishes available, consult Customer Service Center.

MOUNTING CLIP

A, BY, GY, H, P, W, Y & YL SERIES



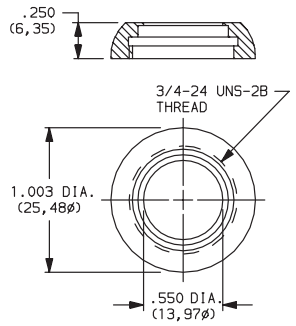
PART NO.

175050300

MATERIAL
Steel; Finish: Nickel or bright zinc plate

NUTS (DRESS)

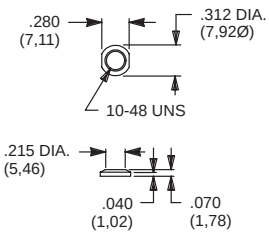
Y, H & A SERIES



PART NO.

531300201	NICKEL PLATE
531300535	POLISHED NICKEL PLATE
175052745	GLOSS BLACK PLATE

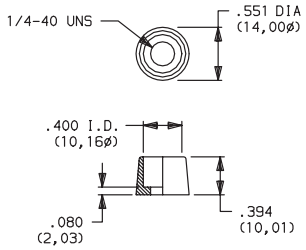
T & TP SERIES



PART NO.

465701201	NICKEL PLATED
465701264	BLACK

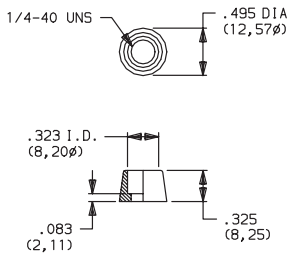
8020, 8060, 8500 & TP SERIES



PART NO.

580700201	NICKEL PLATED

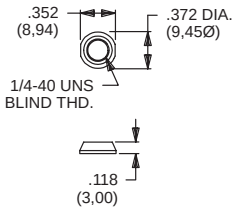
8020, 8060, E010 & TP SERIES



PART NO.

702501201	NICKEL PLATED
702501264	BLACK

7000, 8020, 8060, 8500, 9000, E, E010, T & TP SERIES

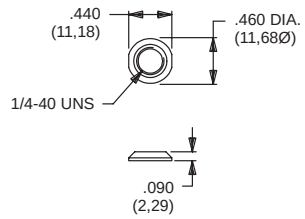


PART NO.

709901201	NICKEL PLATED
709901215	SATIN CHROME
709901264	BLACK

FOR SERIES
7000, 8020, 8060, 8500, 9000, E, E010, T, TP

7000, 8020, 8060, 8500, 9000, E, E010, T & TP SERIES

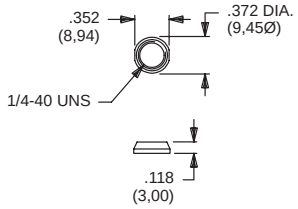


PART NO.

776001201	NICKEL PLATED
776002231	BLACK

FOR SERIES
7000, 8020, 8060, 8500, 9000, E, E010, T, TP

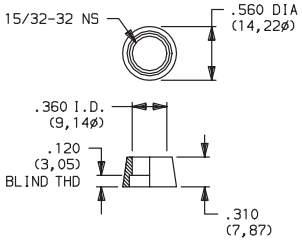
7000, 8020, 8060, 8500, 9000, E, E010, T & TP SERIES



PART NO.

780701201	NICKEL PLATED
780701215	SATIN CHROME
780701264	BLACK

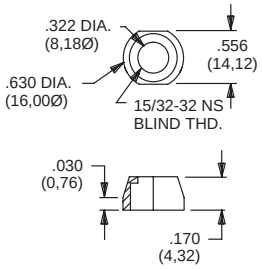
8500 SERIES



PART NO.

498800201	NICKEL PLATED

7000 SERIES, T2P ACTUATOR



PART NO.

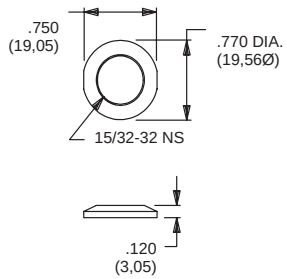
605300201	NICKEL PLATED

MATERIAL

Brass, nickel plated standard. Other finishes available, consult Customer Service center.

NUTS (DRESS)

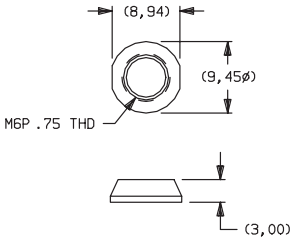
7000, 8500 & 9000 SERIES



PART NO.

895101201 NICKEL PLATED
895101264 BLACK

7000, 8020 & 8060 SERIES



PART NO.

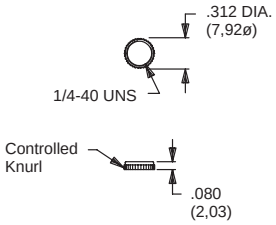
709903201 NICKEL PLATED
709903264 BLACK

MATERIAL

Brass, nickel plated standard. Other finishes available, consult Customer Service center.

NUTS (KNURLED)

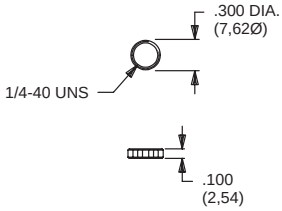
7000, 8020, 8060, 8500, 9000, T & TP SERIES



PART NO.

778000201 NICKEL PLATED
778000264 BLACK

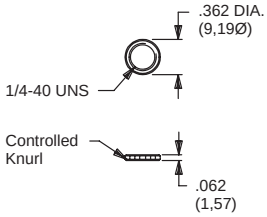
7000, 8020, 8060, 8500, 9000, E, E010, T & TP SERIES



PART NO.

778600201 NICKEL PLATED
778600224 BLACK

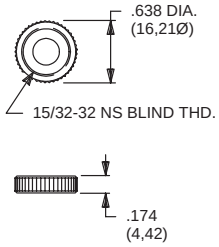
7000, 8020, 8060, 8500, 9000, T & TP SERIES
FITS GULMITE #12 SOCKET & WRENCH 8942-02-201



PART NO.

796901201 NICKEL PLATED
796901264 BLACK

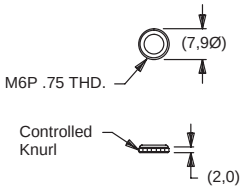
7000, 8500 & 9000 SERIES



PART NO.

471300201 NICKEL PLATED
471300264 BLACK

7000, 8020 & 8060 SERIES



PART NO.

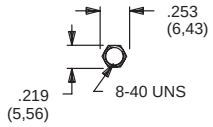
483200201 NICKEL PLATED

MATERIAL

Brass, nickel plated standard. Other finishes available, consult Customer Service center.

NUTS (MOUNTING)

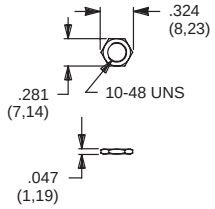
8600 SERIES



PART NO.

775200201 NICKEL PLATED
775200264 BLACK

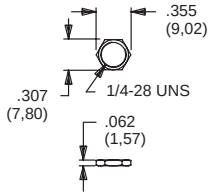
T & TP SERIES



PART NO.

464900201 NICKEL PLATED
464900264 BLACK

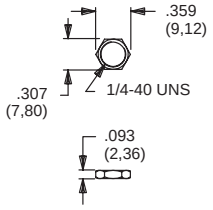
M SERIES



PART NO.

477100201 NICKEL PLATED

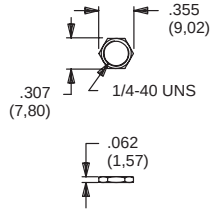
E & E010 SERIES



PART NO.

540400201 NICKEL PLATED
540400264 BLACK

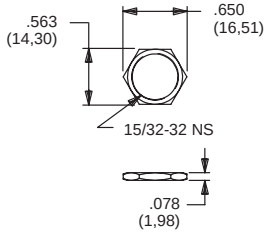
7000, 8020, 8060, 8500, 9000, T & TP SERIES



PART NO.

700201201 NICKEL PLATED
700201264 BLACK

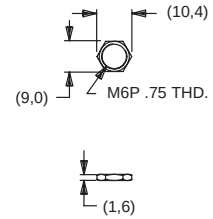
7000, 8500 & 9000 SERIES



PART NO.

707100201 NICKEL PLATED
707100215 SATIN CHROME
707100264 BLACK

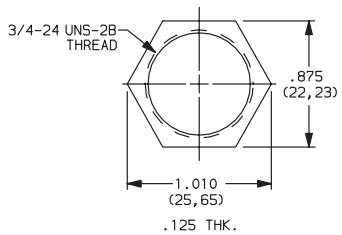
7000, 8020 & 8060 SERIES



PART NO.

791600201 NICKEL PLATED
791600264 BLACK

A, BY, GY, H, P, W, Y & YL SERIES

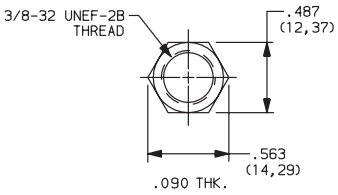


PART NO.

175050700

MATERIAL
Steel; Finish: Zinc plate

A SERIES

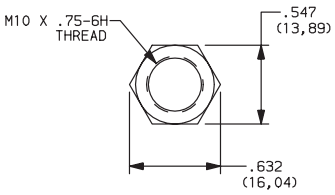


PART NO.

472706201

MATERIAL
Zinc; Finish: Nickel plate

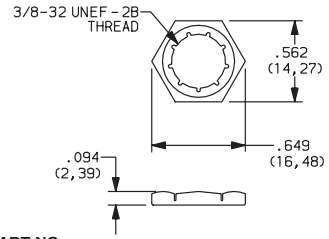
A SERIES



PART NO.

495100201

H & R SERIES

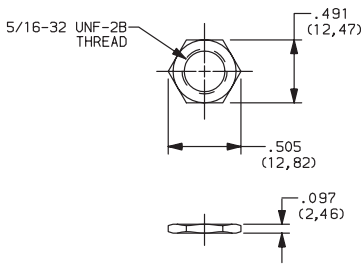


PART NO.

175000100

MATERIAL
Brass; Finish: Zinc electro & clear bright chromate

F SERIES



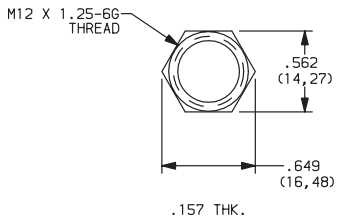
PART NO.

175020201

MATERIAL
Brass, nickel plated standard. Other finishes available, consult Customer Service Center.

NUTS (MOUNTING)

YM SERIES



PART NO.

179090123

MATERIAL

Brass, nickel plated standard. Other finishes available, consult Customer Service Center.

RECESSED BRACKET

D & DM SERIES



PART NO.

057090100

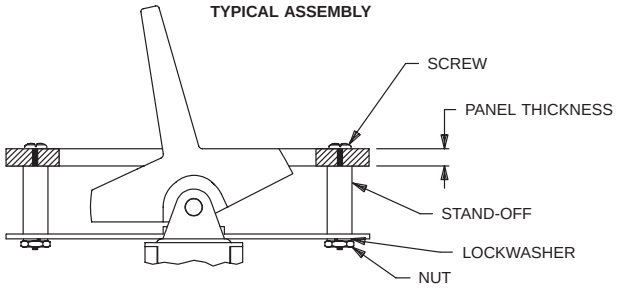
MATERIAL

6/6 Nylon

ROCKER AND LEVER HANDLE SWITCH-PANEL MOUNTING HARDWARE

Panel mounting hardware for rocker and lever handle switches is available separately. Mounting hardware consists of two screws, two nuts, two standoffs and two lockwashers per switch, and is available for panel thicknesses of 1/16, 3/32 and 1/8 inch. See part numbers below.

TYPICAL ASSEMBLY



7000 Series: J1, J2, J54, J64, J94 actuators.
T Series: J1, J6 actuators.

PART NO.	PANEL THK.	STANDOFF LENGTH
761101000	1/16 IN. (1,59)	.295 (7,49)
761102000	3/32 IN (2,38)	.264 (6,71)
761103000	1/8 IN. (3,18)	.233 (5,92)

9000 Series: J1, J2, J3, J50, J60, J90 actuators.
7000 Series: J3 actuators.

PART NO.	PANEL THK.	STANDOFF LENGTH
770601000	1/16 IN. (1,59)	.295 (7,49)
770602000	3/32 IN (2,38)	.264 (6,71)
770603000	1/8 IN. (3,18)	.233 (5,92)

7000 & 9000 Series: J4, J5 actuators.

PART NO.	PANEL THK.	STANDOFF LENGTH
775001000	1/16 IN. (1,59)	.375 99,53)
775002000	3/32 IN (2,38)	.344 (8,74)
775003000	1/8 IN. (3,18)	.312 (7,92)

7000 & 9000 Series: J10 actuators.

PART NO.	PANEL THK.	STANDOFF LENGTH
770701000	1/16 IN. (1,59)	.295 (7,49)
770702000	3/32 IN (2,38)	.264 (6,71)
770703000	1/8 IN. (3,18)	.233 (5,92)

MATERIAL

Screws, nuts, lockwashers: Stainless steel. Standoffs: Nylon, standard Aluminum available, consult Customer Service Center.

ROCKER AND LEVER HANDLE ACTUATORS

ET SERIES
J1 ACTUATOR



PART NO.

261A01000	WHITE
261A02263	BLACK
261A03000	RED

T SERIES
J1 ACTUATOR



PART NO.

468001000	WHITE
468002263	BLACK
468003000	RED

7000, 9000 & E SERIES
J1, J11, J15, J16 ACTUATORS



PART NO.

760201000	WHITE
760202263	BLACK
760203000	RED

7000, 9000 & E SERIES
J2, J21, J25, J26 ACTUATORS



PART NO.

760501000	WHITE
760502263	BLACK
760503000	RED

7000, 9000 & E SERIES
J3, J37 ACTUATORS



PART NO.

766601000	WHITE
766602263	BLACK
766603000	RED

7000, 9000 & E SERIES
J4, J47 ACTUATORS



PART NO.

773301000	WHITE
773302263	BLACK
773303000	RED

7000, 9000 & E SERIES
J5, J57 ACTUATORS



PART NO.

791201000	WHITE
791202263	BLACK
791203000	RED

7000, 9000 & E SERIES
J50, J51, J52, J53, J54 ACTUATORS



PART NO.

628301000	WHITE
628302263	BLACK
628303000	RED

ET SERIES,
J6 ACTUATOR



PART NO.

260A01000	WHITE
260A02263	BLACK
260A03000	RED

For Hi Temp, Consult Factory)

T SERIES
J6 ACTUATOR



PART NO.

468101000	WHITE
468102263	BLACK
468103000	RED

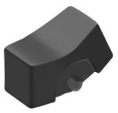
7000, 9000 & E SERIES
J60, J61, J62, J63, J64 ACTUATORS



PART NO.

598101000	WHITE
613802263	BLACK
598103000	RED

7000 SERIES
J76 ACTUATOR



PART NO.

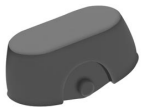
725A01000	WHITE
725A02263	BLACK
725A03000	RED

MATERIAL

Nylon. Finish: Matte. Special colors, custom markings available, consult Customer Service Center.

ROCKER AND LEVER HANDLE ACTUATORS

7000, 9000 & E SERIES
J8 ACTUATOR



PART NO.

488701000	WHITE
488702263	BLACK
488703000	RED

7000, 9000 & E SERIES
J90, J91, J92, J93, J94 ACTUATORS



PART NO.

598001000	WHITE
598002263	BLACK
598003000	RED

7000 & 9000 SERIES
J10, J19 ACTUATORS



PART NO.

769501000	WHITE
769502263	BLACK
769503000	RED

7000 & 9000 SERIES
L41 ACTUATOR



PART NO.

481001000	WHITE
481002263	BLACK
481003000	RED

7000 & 9000 SERIES
L42 ACTUATOR



PART NO.

481101000	WHITE
481102263	BLACK
481103000	RED

9000 SERIES
L43 ACTUATOR



PART NO.

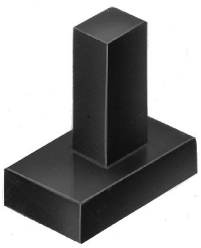
481201000	WHITE
481202263	BLACK
481203000	RED

MATERIAL

Nylon. Finish: Matte. Special colors, custom markings available, consult Customer Service Center.

SPLASH CAPS

L SERIES



PART NO.

120100200

Fits 'MS' mounting style, LXX1 & LXX2 models only.

MATERIAL
6/6 Nylon

L SERIES



PART NO.

120100300

Fits 'MV' mounting style, LX1X models only.

MATERIAL
6/6 Nylon

L SERIES



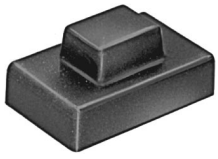
PART NO.

120100400

Fits 'MA' mounting style, LXX3 models only.

MATERIAL
6/6 Nylon

V SERIES



Fits 'MS' mounting style.

PART NO.

128000100

MATERIAL
6/6 Nylon

SD SERIES



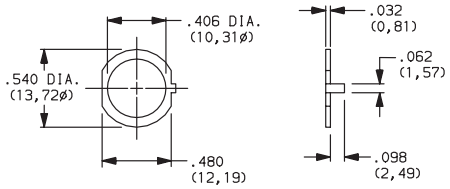
PART NO.

678500000	NATURAL
678501000	BLACK

MATERIAL
6/6 Nylon

STOP RINGS

A SERIES

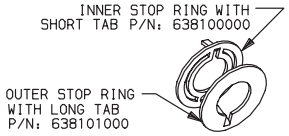


PART NO.

472900201

MATERIAL
Brass; Finish: Nickel plated

M SERIES



PART NO.

638100000 INNER-W/SHORT TAB
638101000 OUTER-W/LONG TAB

One each required for setting stops.

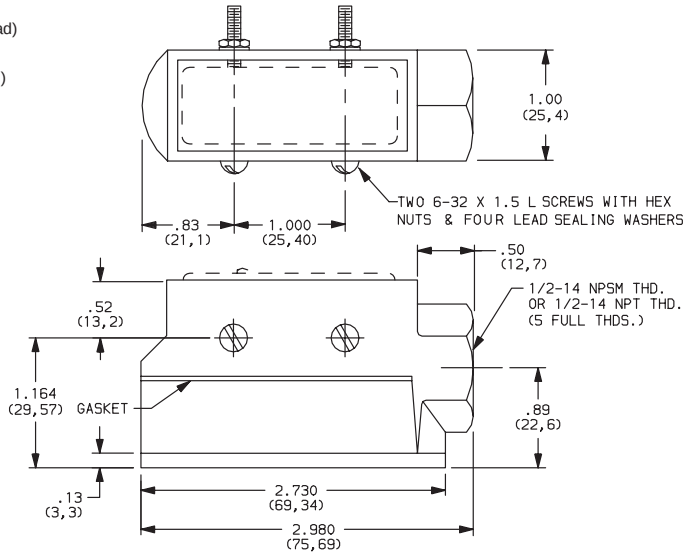
SWITCH ENCLOSURES

These enclosures make it easy to install HB and HG Series switches with electrical conduit, electrical tubing or armored cable. The switch is inserted through the open top of the enclosure and is secured by two screws (furnished). The lower section of the enclosure is completely removable and gives free access to the switch terminals. Switches must be ordered separately.

TC-2 THRU-BOLT MOUNTING, 1/2-14 NPSM CONDUIT THREAD (Straight Thread)

TC-4 THRU-BOLT MOUNTING, 1/2-14 NPT CONDUIT THREAD (Tapered Thread)

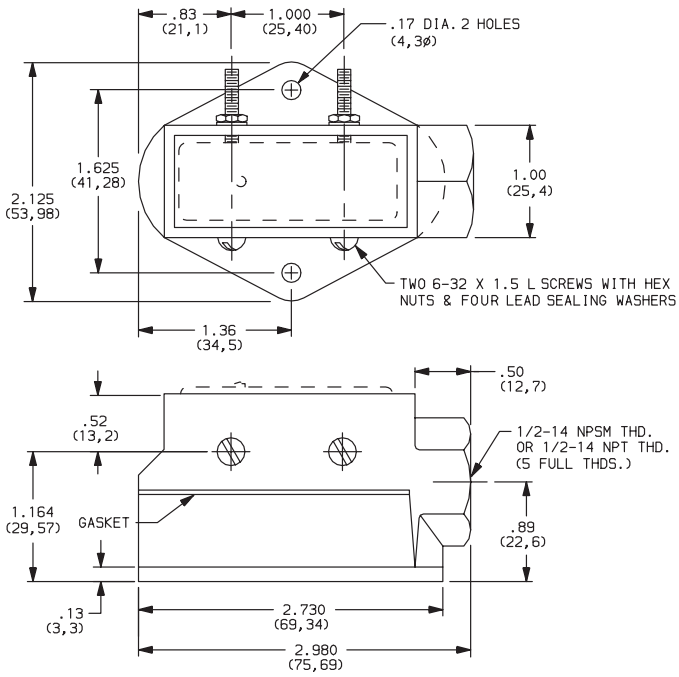




TC-3 FLANGE MOUNTING, 1/2-14 NPSM CONDUIT THREAD (Straight Thread)

TC-5 FLANGE MOUNTING, 1/2-14 NPT CONDUIT THREAD (Tapered Thread)

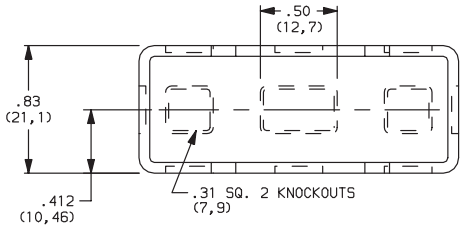




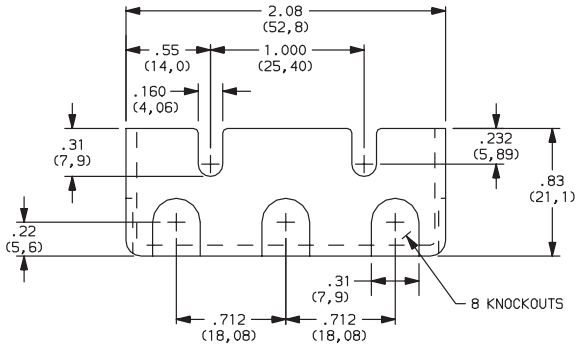
TERMINAL COVERS

These terminal covers are available with HB and HG Series switches. They are made of molded phenolic, with knockouts that permit wires to be brought in at convenient points. They are held in place by the switch mounting screws.

TC-1







WRENCHES



PART NO.

465300201

FITS NUT PART NUMBERS
4649XXXXX, 4657XXXXX



PART NO.

778500201

FITS NUT PART NUMBERS
7002XXXXX, 7099XXXXX
7807XXXXX, 7916XXXXX



PART NO.

481500201

FITS NUT PART NUMBERS
7780XXXXX, 4832XXXXX



PART NO.

894200201

FITS NUT PART NUMBERS
7969XXXXX

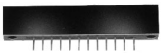
MISCELLANEOUS

STOP PINS

PART NO.

402900000	3 SERIES
657800000	3P SERIES
537100000	M SERIES
587300000	SF/SR & S2 SERIES

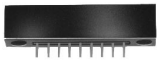
3 SERIES CONNECTOR



PART NO.

605A00000	PC	Fits 0, 1, 4, 5 terminations only.
605A02000	SOLDER LUG	

3P SERIES CONNECTOR



PART NO.

630000000	Fits 0, 1 terminations only.

M SERIES WASHERS



PART NO.

586800000	RUBBER PANEL SEAL
537202000	ADHESIVE MYLAR RETAINS STOP PINS

Z3 TERMINATION FEMALE CONNECTOR



PART NO.

530100000

KS SERIES LED SUPPORT



PART NO.

540300000

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**».

AVIC JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

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

«FORSTAR» (основан в 1998 г.)

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).

FORSTAR®

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