MSM II MO SPDT

Metal push-button with switching voltage up to 250 VAC and indicator elements with different illumination surfaces

new

Momentary Action Switches
Non-illuminated

Ring illumination
green

Ring Illumination RD
blue

See below:
Approvals and Compliances

Description

- Mechanical switch with stroke MO (Momentary)
- With or without illumination
- With torsion protection for easier positioning
- Equipped with quick connect terminals to permit fast connection
- Indicator elements in identical design as push buttons

Unique Selling Proposition

- Attractive tactile feedback
- High quality materials
- Long life span
- Color marking and variety of design options regarding size, color and illumination

Characteristics

- Housing material in stainless steel
- Actuator in stainless steel or ceramic
- Housing and actuator material of the ring-illuminated RD version in black anodized aluminum
- Switching voltage from 30 VDC to 250 VAC
- Switching current from 0.1 A to 10 A, with gold 100mA
- All laser marked, ring-illuminated and point-illuminated versions have anti-rotation protection for easy mounting

References

Other versions on request

Weblinks

pdf data sheet, html datasheet, General Product Information, CAD-Drawings, Product News, Detailed request for product, Configuartor

Technical Data

Electrical Data	
Switching Function	See table of Microswitch
Supply Voltage LED	5 VDC - 24 VDC, see table of variants
Impulse Withstand Voltage (ESD)	8 kV contact discharge
	15 kV air discharge
Mechanical Data	
Actuating Force	4.5 N
Actuating Travel	1.0 mm
Lifetime	1.5 million actuations
Shock Protection	IK08 / IK07 (M30)
Mounting screw torque Plastic Nut	M16: max. 2 Nm
	M19: max. 4.5 Nm
	M22: max. 3.5 Nm
	M30: max. 8 Nm

Climatical Data	
Operating Temperature	-30 to 85 °C
Storage Temperature	-40 to 85 °C
Protection Class	IP66 and IP67 Front Side
Salt Spray Test (acc. to IEC 60068-2-11)	24 h / 48 h / 96 h Residence Time
Material	
Housing	Aluminium / Stainless Steel
Actuator	Aluminium / Stainless Steel / Ceramics
Seal Ring	NBR70
Plastic Nut	PA, UL94

Approvals and Compliances

Detailed information on product approvals, code requirements, usage instructions and detailed test conditions can be looked up in Details about Approvals

SCHURTER products are designed for use in industrial environments. They have approvals from independent testing bodies according to national and international standards. Products with specific characteristics and requirements such as required in the automotive sector according to IATF 16949, medical technology according to ISO 13485 or in the aerospace industry can be offered exclusively with customer-specific, individual agreements by SCHURTER.

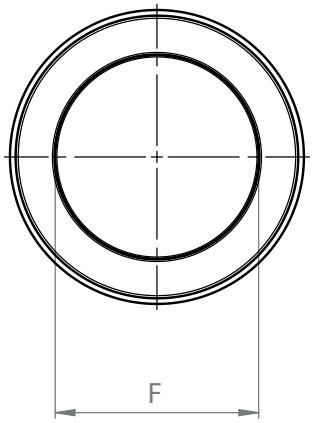
Compliances

The product complies with following Guide Lines

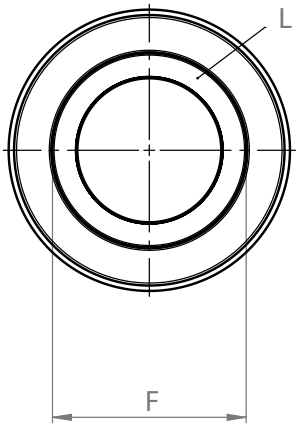
Identification	Details	Initiator	Description
CE	CE declaration of conformity	SCHURTER AG	The CE marking declares that the product complies with the applicable requirements laid down in the harmonisation of Community legislation on its affixing in accordance with EU Regulation 765/2008.
UKCA	UKCA declaration of conformity	SCHURTER AG	The UKCA marking declares that the product complies with the applicable requirements laid down in the British Amendment of Regulation (EC) 765/2008.
RoHS	RoHS	SCHURTER AG	Directive RoHS 2011/65/EU, Amendment (EU) 2015/863
REACH	REACH	SCHURTER AG	On 1 June 2007, Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals 1 (abbreviated as "REACH") entered into force.

Dimension [mm]

Non illuminated push buttons

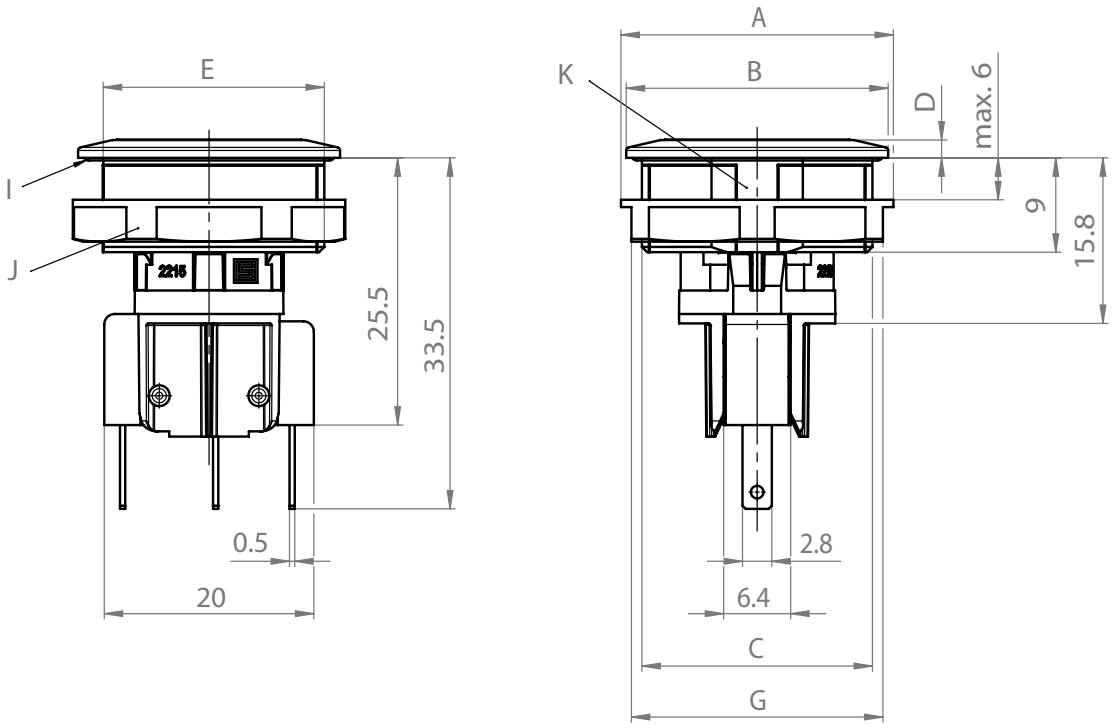


Non illuminated

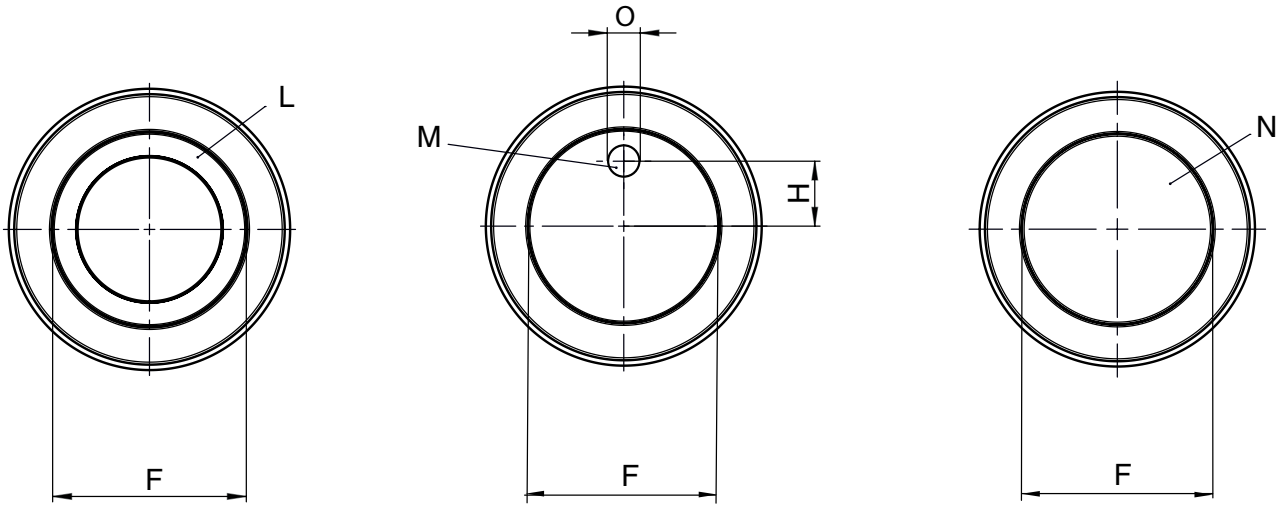


Non illuminated
with color ring (RC)

MSM II SPDT with Microswitch and Quick Connect Terminal



Illuminated push buttons

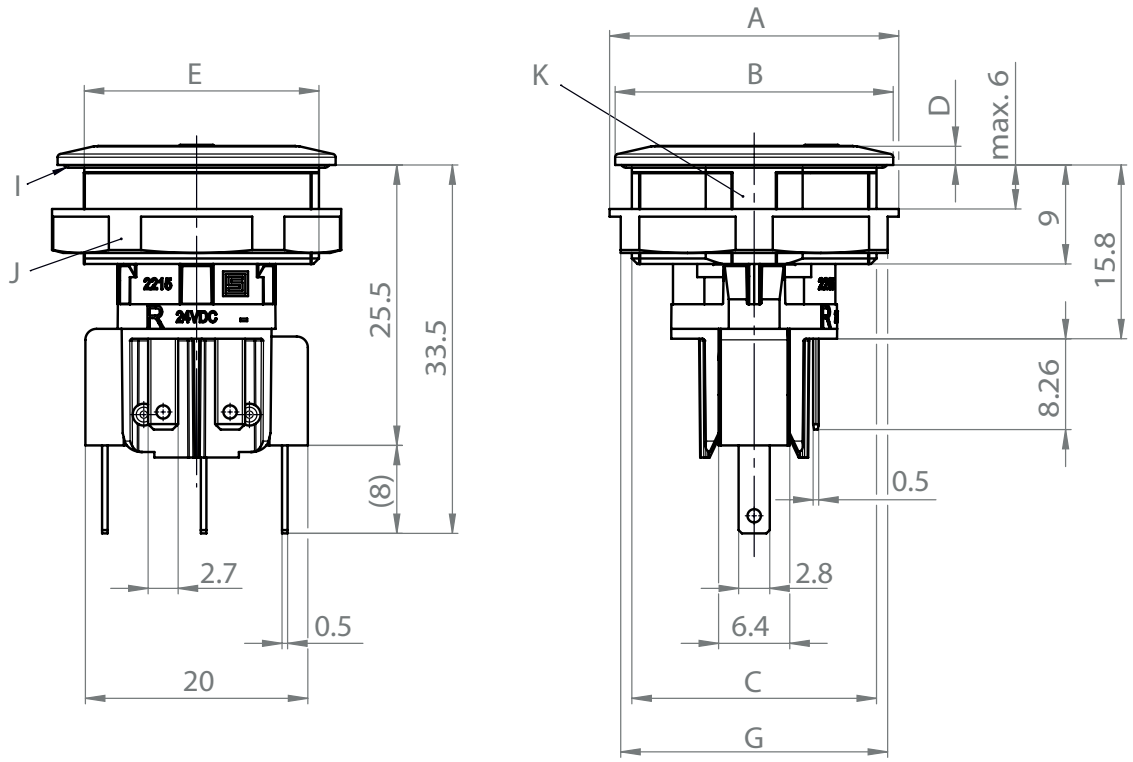


Ring illumination(RI)

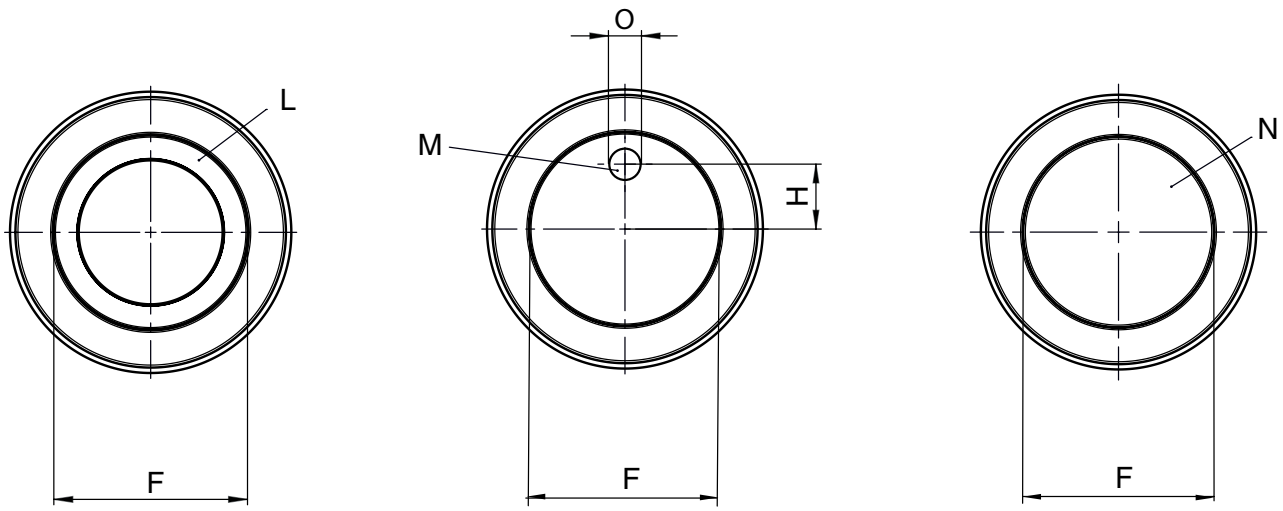
Point illumination(PI)

Area illumination (AI)

MSM II PI/RI SPDT with Microswitch and Quick Connect Terminal



Indicator



Ring illumination(RI)

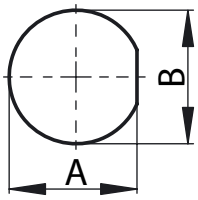
Point illumination(PI)

Area illumination (AI)

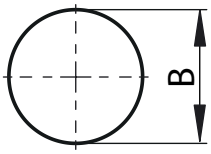
Diameter in mm	16	19	22	30
A	Ø20	Ø24	Ø26	Ø34.5
B	Ø19	Ø22	Ø25	Ø34
C	M16x1	M19x0.75	M22x1	M30x1.5
D	1.7	1.7	1.7	2
E	15.1	18.1	21.1	28.8
F Operating area / illumination area	Ø12.8	Ø15.8	Ø18	Ø25
G	AF19	AF22	AF24	AF32
H	4.3	5.3	6.1	8.4
O	2.2	2.7	3.1	4.3
I	O-Ring			
J	Nut			
K	Anti-rotation lock			
L	Lighting ring			
M	Point illumination			
N	Area illumination			

Dimension

All illuminated products and all non illuminated push buttons with symbols are supplied with anti-rotation protection



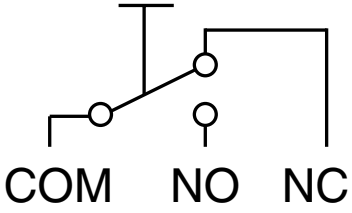
Non-illuminated push-buttons are supplied without anti-rotation protection



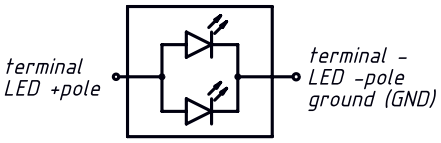
Diameter (mm)	A	B
16	15.15+0.05	16.1 +0.1
19	18.15+0.05	19.1 +0.1
22	21.15+0.05	22.1 +0.1
24	23.50+0.05	24.1 +0.1
30	28.85+0.05	30.1 +0.1

Diagrams

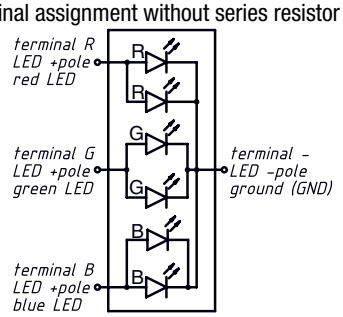
Switching element SPDT



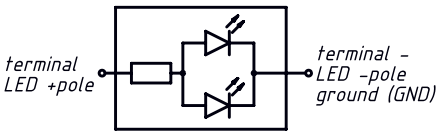
Illumination single color
Terminal assignment without series resistor



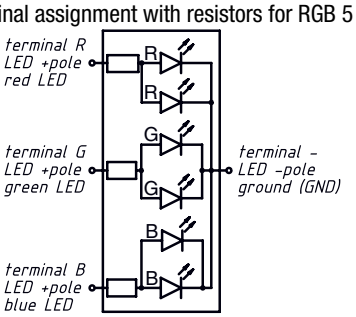
Illumination RGB
Terminal assignment without series resistor



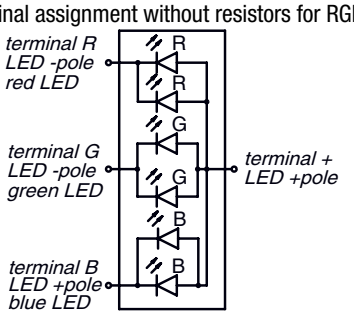
Illumination single color
Terminal assignment with resistors for 5 VDC



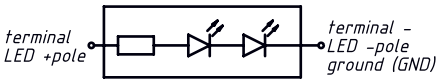
Illumination RGB
Terminal assignment with resistors for RGB 5 VDC



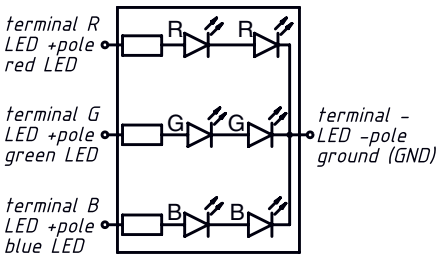
common anode
Terminal assignment without resistors for RGB



Illumination single color
Terminal assignment with resistors for 12 VDC and 24 VDC



Illumination RGB
Terminal assignment with resistors for RGB 12 VDC and 24 VDC



Illumination options for RGB

Lighting type	Wire red	Wire green	Wire blue	Resulting Color
Multicolor Singlecolor	x			Red
Multicolor Singlecolor		x		Green
Multicolor Singlecolor			x	Blue
Multicolor RGB Additive 2	x	x		Yellow
Multicolor RGB Additive 2	x		x	Magenta
Multicolor RGB Additive 2		x	x	Cyan
Multicolor RGB Additive 3	x	x	x	White

Illumination

Operating Data	Forward Current max.	Forward Voltage at 10 mA	Forward Voltage max.
LED red	25 mA	1,7 VDC	2,4 VDC
LED green	25 mA	2,6 VDC	3,2 VDC
LED blue	25 mA	2,6 VDC	3,2 VDC

Micro Switch

Micro Switch	Contact Material	Switching Voltage	Switching current	Rated Switching Capacity	Lifetime	Contact Resistance	Insulation Resistance	Duration of Bounce
0.1 A, IP40	Au	max. 30 VDC	max. 0.1 A	3 W	0.2 Mio.	< 50 mΩ	> 100 MΩ	< 5 ms
0.1 A, IP67		max. 30 VDC	max. 0.1 A	2.5 W	0.05 Mio.			
5 A / 125 VAC resp. 3 A / 250 VAC, IP40	Ag	max. 125 / 250 VAC	max. 5 / 3 A	750 W	0.2 Mio.	< 30 mΩ	> 100 MΩ	< 5 ms
6 A, IP67		max. 250 VAC	max. 5 A	1250 W	0.01 Mio.			
10 A, IP40	Ag	max. 250 VAC	max. 10 A	2500 W	0.05 Mio.	< 30 mΩ	> 100 MΩ	< 5 ms
10 A, IP67		max. 250 VAC	max. 10 A	2500 W	0.01 Mio.			

Order number key

M	S	M	II	-	19	-	MO	NX	A10	-	B	1	-	B	A0	-	A	-	PI	0GN	012	C	A0	-	S0	NC	B	-	S0	NC	NF	-	1	074	-	C
					1		*				2						3		4	5	6	7	*		*				8				9			*

Diameter 1

16 mm	=	16
19 mm	=	19
22 mm	=	22
30 mm 2)	=	30

Switch function *

Switch	=	MONX

Switching current 2

Switch with Microswitch SPDT / quick connect

100 mA Gold contact	=	A10-B1-AA0
3 A	=	03A-B1-BA0
5 A	=	05A-B1-BA0
6 A	=	06A-B1-BA0
10 A	=	10A-B1-BA0

Microswitch version 3

IP40 (100 mA, 3 A, 5 A, 10 A)	=	A
IP67 (100 mA, 3 A, 6 A, 10 A)	=	B***

Illumination / Appearance 4

No illumination	=	00
No illumination with colored ring	=	RC
Area illumination	=	AI
Ring illumination	=	RI
Point illumination	=	PI
Ring illumination Discreet/DeadFront	=	RD

Illumination / Color 5

None	=	000
Red	=	0RD
Green	=	0GN
Blue	=	0BL
Yellow	=	0YL
White	=	0WT
Multicolor	=	RGB

Supply voltage illumination 6

No illumination	=	000
5 V	=	005
12 V	=	012
24 V	=	024
LED without resistor	=	00R

Circuit type illumination 7

None	=	0
Common Cathode	=	C
Common Anode	=	A

Housing material and color *

Stainless steel 1.4305	(Silver)	=	S0NC
Aluminum EN AW-6082 (3.3215)	(Black)	=	A0BK

Actuator material 8

Stainless steel 1.4305	(Silver)	=	S0NC
Ceramic (only with stainless steel)	(White)	=	C0WT
Aluminum (only on RD version)	(Black)	=	A0BK

Marking type 9

None	=	0000
Laser marking		
STOP	=	1057
ON	=	1065
OFF	=	1066
ON/OFF	=	1071
START	=	1072
⏻	=	1074
💡	=	1075
🔔	=	1076
⏼	=	1077

further lettering on request

Accessories *

Hex nut plastic with O-ring	=	C

Stainless steel nut can be ordered additionally

0098.9260	Stainless steel nut M16
0098.9250	Stainless steel nut M19
0098.9253	Stainless steel nut M22
0098.9216	Stainless steel nut M30

2) 30 mm diameter not available with Area Illumination

* Values marked with an asterisk depend on the selected properties.

Variants

Diameter	Switching current	Electrical contact	Circuit type illumination	IP specification backside	Illumination	Illumination color	Supply Voltage LED	Order Number
16mm	100mA	SPDT	none	IP40	none	none	none	3-145-122
16mm	5A	SPDT	none	IP40	none	none	none	3-145-273
16mm	10A	SPDT	none	IP40	none	none	none	3-145-274
16mm	100mA	SPDT	none	IP67	none	none	none	3-145-275
16mm	5A	SPDT	none	IP40	none	none	none	3-145-276
16mm	100mA	SPDT	none	IP40	none	none	none	3-145-277
16mm	5A	SPDT	none	IP40	none	none	none	3-145-278
16mm	10A	SPDT	-	IP40	none	none	none	3-145-279
16mm	5A	SPDT	none	IP40	none	none	none	3-145-364
16mm	5A	SPDT	none	IP40	ring colored (non illumination)	red	none	3-145-365
16mm	5A	SPDT	none	IP40	ring colored (non illumination)	green	none	3-145-366
16mm	5A	SPDT	none	IP40	ring colored (non illumination)	blue	none	3-145-367
16mm	5A	SPDT	none	IP40	ring colored (non illumination)	black	none	3-145-368
16mm	100mA	SPDT	none	IP40	ring illumination	red	24V DC	3-145-369
16mm	10A	SPDT	none	IP40	ring illumination	red	24V DC	3-145-370
16mm	100mA	SPDT	none	IP40	ring illumination	green	24V DC	3-145-371
16mm	10A	SPDT	none	IP40	ring illumination	green	24V DC	3-145-372
16mm	100mA	SPDT	none	IP40	ring illumination	blue	24V DC	3-145-373
16mm	10A	SPDT	none	IP40	ring illumination	blue	24V DC	3-145-374
16mm	100mA	SPDT	none	IP40	ring illumination	yellow	24V DC	3-145-375
16mm	10A	SPDT	none	IP40	ring illumination	yellow	24V DC	3-145-376
16mm	100mA	SPDT	none	IP40	ring illumination	white	24V DC	3-145-377
16mm	10A	SPDT	none	IP40	ring illumination	white	24V DC	3-145-378
16mm	100mA	SPDT	none	IP40	area illumination	red	24V DC	3-145-379
16mm	10A	SPDT	none	IP40	area illumination	red	24V DC	3-145-380
16mm	100mA	SPDT	none	IP40	area illumination	green	24V DC	3-145-381
16mm	10A	SPDT	none	IP40	area illumination	green	24V DC	3-145-382
16mm	100mA	SPDT	none	IP40	area illumination	blue	24V DC	3-145-384
16mm	100mA	SPDT	none	IP40	area illumination	yellow	24V DC	3-145-385
16mm	100mA	SPDT	none	IP40	area illumination	white	24V DC	3-145-386
16mm	10A	SPDT	none	IP40	area illumination	white	24V DC	3-145-387
16mm	5A	SPDT	none	IP40	ring illumination deadfront	white	24V DC	3-145-388
16mm	5A	SPDT	none	IP40	none	none	none	3-145-822
16mm	5A	SPDT	none	IP40	ring illumination	red	24V DC	3-148-969
16mm	5A	SPDT	none	IP40	ring illumination	green	24V DC	3-148-970
16mm	5A	SPDT	none	IP40	ring illumination	blue	24V DC	3-148-971
16mm	100mA	SPDT	none	IP40	none	none	none	3-148-994
16mm	6A	SPDT	none	IP67	point illumination	green	24V DC	3-150-306
16mm	6A	SPDT	none	IP67	area illumination	yellow	24V DC	3-150-459
16mm	6A	SPDT	none	IP67	none	none	none	3-150-461
16mm	100mA	SPDT	none	IP67	ring illumination	green	w/o resistors	3-155-932
16mm	100mA	SPDT	none	IP40	ring illumination	white	12V DC	3-157-715
19mm	100mA	SPDT	none	IP40	none	none	none	3-145-396
19mm	5A	SPDT	none	IP40	none	none	none	3-145-397

Diameter	Switching current	Electrical contact	Circuit type illumination	IP specification backside	Illumination	Illumination color	Supply Voltage LED	Order Number
19mm	10A	SPDT	none	IP40	none	none	none	3-145-398
19mm	6A	SPDT	none	IP67	none	none	none	3-145-402
19mm	100mA	SPDT	none	IP40	none	none	none	3-145-419
19mm	100mA	SPDT	none	IP40	none	none	none	3-145-433
19mm	100mA	SPDT	none	IP40	none	none	none	3-145-438
19mm	5A	SPDT	none	IP40	none	none	none	3-145-442
19mm	5A	SPDT	none	IP40	none	none	none	3-145-443
19mm	5A	SPDT	none	IP40	none	none	none	3-145-444
19mm	5A	SPDT	none	IP40	none	none	none	3-145-445
19mm	5A	SPDT	none	IP40	none	none	none	3-145-446
19mm	6A	SPDT	none	IP67	none	none	none	3-145-447
19mm	100mA	SPDT	none	IP40	ring illumination	red	24V DC	3-145-448
19mm	5A	SPDT	none	IP40	ring illumination	red	24V DC	3-145-449
19mm	5A	SPDT	none	IP40	ring illumination	red	24V DC	3-145-450
19mm	6A	SPDT	none	IP67	ring illumination	red	24V DC	3-145-451
19mm	10A	SPDT	none	IP40	ring illumination	red	24V DC	3-145-452
19mm	100mA	SPDT	none	IP40	ring illumination	green	24V DC	3-145-453
19mm	5A	SPDT	none	IP40	ring illumination	green	24V DC	3-145-454
19mm	5A	SPDT	none	IP40	ring illumination	green	24V DC	3-145-455
19mm	5A	SPDT	none	IP40	ring illumination	green	24V DC	3-145-456
19mm	6A	SPDT	none	IP67	ring illumination	green	24V DC	3-145-457
19mm	6A	SPDT	none	IP67	ring illumination	green	24V DC	3-145-458
19mm	6A	SPDT	none	IP67	ring illumination	green	24V DC	3-145-459
19mm	6A	SPDT	none	IP67	ring illumination	green	24V DC	3-145-460
19mm	6A	SPDT	none	IP67	ring illumination	green	24V DC	3-145-461
19mm	10A	SPDT	none	IP40	ring illumination	green	24V DC	3-145-462
19mm	100mA	SPDT	none	IP40	ring illumination	blue	24V DC	3-145-463
19mm	100mA	SPDT	none	IP40	ring illumination	blue	24V DC	3-145-464
19mm	5A	SPDT	none	IP40	ring illumination	blue	24V DC	3-145-465
19mm	6A	SPDT	none	IP67	ring illumination	blue	24V DC	3-145-466
19mm	6A	SPDT	none	IP67	ring illumination	blue	24V DC	3-145-467
19mm	10A	SPDT	none	IP40	ring illumination	blue	24V DC	3-145-468
19mm	100mA	SPDT	none	IP40	ring illumination	yellow	24V DC	3-145-469
19mm	5A	SPDT	none	IP40	ring illumination	white	24V DC	3-145-470
19mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-145-472
19mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-145-480
19mm	6A	SPDT	common cathode	IP67	ring illumination	multicolor	24V DC	3-145-496
19mm	10A	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-145-497
19mm	5A	SPDT	none	IP40	ring illumination	red	12V DC	3-145-498
19mm	100mA	SPDT	none	IP40	ring illumination	blue	12V DC	3-145-499
19mm	100mA	SPDT	none	IP40	ring illumination	blue	12V DC	3-145-500
19mm	5A	SPDT	none	IP40	ring illumination	blue	12V DC	3-145-501
19mm	5A	SPDT	none	IP40	ring illumination	white	12V DC	3-145-502
19mm	100mA	SPDT	none	IP40	ring illumination	red	5V DC	3-145-503
19mm	100mA	SPDT	none	IP40	ring illumination	green	5V DC	3-145-505
19mm	100mA	SPDT	none	IP40	ring illumination	blue	5V DC	3-145-508
19mm	100mA	SPDT	none	IP40	ring illumination	blue	5V DC	3-145-510

Diameter	Switching current	Electrical contact	Circuit type illumination	IP specification backside	Illumination	Illumination color	Supply Voltage LED	Order Number
19mm	100mA	SPDT	none	IP40	ring illumination	white	5V DC	3-145-511
19mm	100mA	SPDT	none	IP40	ring illumination	green	w/o resistors	3-145-513
19mm	5A	SPDT	none	IP40	point illumination	red	w/o resistors	3-145-514
19mm	100mA	SPDT	none	IP40	point illumination	green	w/o resistors	3-145-515
19mm	5A	SPDT	none	IP40	point illumination	green	w/o resistors	3-145-516
19mm	10A	SPDT	none	IP40	point illumination	green	w/o resistors	3-145-517
19mm	5A	SPDT	none	IP40	point illumination	blue	w/o resistors	3-145-518
19mm	5A	SPDT	none	IP40	point illumination	blue	w/o resistors	3-145-519
19mm	100mA	SPDT	none	IP40	area illumination	red	24V DC	3-145-524
19mm	5A	SPDT	none	IP40	area illumination	red	24V DC	3-145-525
19mm	6A	SPDT	none	IP67	area illumination	red	24V DC	3-145-526
19mm	10A	SPDT	none	IP40	area illumination	red	24V DC	3-145-528
19mm	100mA	SPDT	none	IP40	area illumination	green	24V DC	3-145-529
19mm	10A	SPDT	none	IP40	area illumination	green	24V DC	3-145-531
19mm	100mA	SPDT	none	IP40	area illumination	blue	24V DC	3-145-532
19mm	100mA	SPDT	none	IP40	area illumination	blue	24V DC	3-145-533
19mm	5A	SPDT	none	IP40	area illumination	blue	24V DC	3-145-536
19mm	5A	SPDT	none	IP40	area illumination	blue	24V DC	3-145-537
19mm	10A	SPDT	none	IP40	area illumination	blue	24V DC	3-145-538
19mm	100mA	SPDT	common cathode	IP40	area illumination	multicolor	24V DC	3-145-539
19mm	100mA	SPDT	common cathode	IP40	area illumination	multicolor	24V DC	3-145-540
19mm	100mA	SPDT	common cathode	IP40	area illumination	multicolor	24V DC	3-145-541
19mm	10A	SPDT	common cathode	IP40	area illumination	multicolor	24V DC	3-145-542
19mm	100mA	SPDT	none	IP40	area illumination	blue	12V DC	3-145-544
19mm	5A	SPDT	none	IP40	area illumination	blue	5V DC	3-145-545
19mm	5A	SPDT	none	IP40	area illumination	blue	5V DC	3-145-548
19mm	5A	SPDT	none	IP40	none	none	none	3-145-555
19mm	5A	SPDT	none	IP40	ring colored (non illumination)	red	none	3-145-556
19mm	5A	SPDT	none	IP40	ring colored (non illumination)	green	none	3-145-559
19mm	5A	SPDT	none	IP40	ring colored (non illumination)	blue	none	3-145-560
19mm	5A	SPDT	none	IP40	ring colored (non illumination)	black	none	3-145-561
19mm	5A	SPDT	none	IP40	ring illumination deadfront	white	24V DC	3-145-566
19mm	5A	SPDT	common cathode	IP40	ring illumination deadfront	multicolor	24V DC	3-145-567
19mm	100mA	SPDT	none	IP67	none	none	none	3-148-799
19mm	6A	SPDT	none	IP67	ring illumination	blue	24V DC	3-150-304
19mm	100mA	SPDT	none	IP40	ring illumination	white	24V DC	3-150-399
19mm	100mA	SPDT	none	IP40	area illumination	white	24V DC	3-150-401
19mm	5A	SPDT	none	IP40	area illumination	blue	5V DC	3-150-579
19mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	w/o resistors	3-150-966
19mm	5A	SPDT	none	IP40	area illumination	blue	5V DC	3-150-979
19mm	10A	SPDT	common cathode	IP40	area illumination	multicolor	24V DC	3-151-050
19mm	10A	SPDT	common cathode	IP40	area illumination	multicolor	24V DC	3-151-051
19mm	6A	SPDT	none	IP67	ring illumination	blue	12V DC	3-151-412
19mm	6A	SPDT	none	IP67	none	none	none	3-152-097
19mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-152-719

Diameter	Switching current	Electrical contact	Circuit type illumination	IP specification backside	Illumination	Illumination color	Supply Voltage LED	Order Number
19mm	5A	SPDT	none	IP40	area illumination	blue	5V DC	3-153-893
19mm	100mA	SPDT	common cathode	IP40	area illumination	multicolor	24V DC	3-155-331
19mm	100mA	SPDT	common anode	IP40	ring illumination	multicolor	w/o resistors	3-155-526
19mm	100mA	SPDT	none	IP67	ring illumination	blue	24V DC	3-155-529
19mm	100mA	SPDT	none	IP40	area illumination	green	24V DC	3-155-753
19mm	100mA	SPDT	none	IP40	area illumination	white	24V DC	3-155-754
19mm	100mA	SPDT	none	IP40	ring illumination	white	12V DC	3-157-720
19mm	5A	SPDT	common cathode	IP40	ring illumination	multicolor	5V DC	3-159-121
19mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	5V DC	3-159-122
19mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	12V DC	3-159-181
22mm	100mA	SPDT	none	IP40	none	none	none	3-145-473
22mm	5A	SPDT	none	IP40	none	none	none	3-145-478
22mm	10A	SPDT	none	IP40	none	none	none	3-145-479
22mm	100mA	SPDT	none	IP40	none	none	none	3-145-481
22mm	5A	SPDT	none	IP40	none	none	none	3-145-492
22mm	6A	SPDT	none	IP67	none	none	none	3-145-493
22mm	100mA	SPDT	none	IP40	none	none	none	3-145-509
22mm	100mA	SPDT	none	IP40	ring illumination	red	24V DC	3-145-527
22mm	100mA	SPDT	none	IP40	ring illumination	green	24V DC	3-145-530
22mm	100mA	SPDT	none	IP40	ring illumination	blue	24V DC	3-145-534
22mm	100mA	SPDT	none	IP40	ring illumination	yellow	24V DC	3-145-535
22mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-145-546
22mm	5A	SPDT	none	IP40	ring illumination	red	24V DC	3-145-547
22mm	10A	SPDT	none	IP40	ring illumination	red	24V DC	3-145-551
22mm	5A	SPDT	none	IP40	ring illumination	green	24V DC	3-145-553
22mm	10A	SPDT	none	IP40	ring illumination	green	24V DC	3-145-554
22mm	5A	SPDT	none	IP40	ring illumination	blue	24V DC	3-145-557
22mm	10A	SPDT	none	IP40	ring illumination	blue	24V DC	3-145-558
22mm	5A	SPDT	none	IP40	ring illumination	yellow	24V DC	3-145-562
22mm	5A	SPDT	none	IP40	ring illumination	white	24V DC	3-145-563
22mm	10A	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-145-564
22mm	100mA	SPDT	none	IP40	ring illumination	red	24V DC	3-145-565
22mm	100mA	SPDT	none	IP40	ring illumination	green	24V DC	3-145-575
22mm	100mA	SPDT	none	IP40	ring illumination	red	24V DC	3-145-586
22mm	10A	SPDT	none	IP40	ring illumination	green	24V DC	3-145-591
22mm	5A	SPDT	none	IP40	ring illumination	white	24V DC	3-145-595
22mm	5A	SPDT	none	IP40	ring illumination	white	24V DC	3-145-596
22mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-145-602
22mm	6A	SPDT	none	IP67	ring illumination	red	24V DC	3-145-612
22mm	6A	SPDT	none	IP67	ring illumination	blue	24V DC	3-145-616
22mm	6A	SPDT	none	IP67	ring illumination	white	24V DC	3-145-617
22mm	6A	SPDT	common cathode	IP67	ring illumination	multicolor	24V DC	3-145-621
22mm	6A	SPDT	common cathode	IP67	ring illumination	multicolor	24V DC	3-145-623
22mm	6A	SPDT	common cathode	IP67	ring illumination	multicolor	24V DC	3-145-628
22mm	100mA	SPDT	common cathode	IP67	ring illumination	multicolor	24V DC	3-145-635
22mm	100mA	SPDT	common cathode	IP67	ring illumination	multicolor	24V DC	3-145-638

Diameter	Switching current	Electrical contact	Circuit type illumination	IP specification backside	Illumination	Illumination color	Supply Voltage LED	Order Number
22mm	100mA	SPDT	none	IP40	ring colored (non illumination)	red	none	3-145-675
22mm	5A	SPDT	none	IP40	ring colored (non illumination)	red	none	3-145-676
22mm	100mA	SPDT	none	IP40	ring colored (non illumination)	green	none	3-145-677
22mm	5A	SPDT	none	IP40	ring colored (non illumination)	green	none	3-145-678
22mm	100mA	SPDT	none	IP40	ring colored (non illumination)	blue	none	3-145-679
22mm	5A	SPDT	none	IP40	ring colored (non illumination)	blue	none	3-145-680
22mm	100mA	SPDT	none	IP40	ring colored (non illumination)	black	none	3-145-681
22mm	5A	SPDT	none	IP40	ring colored (non illumination)	black	none	3-145-682
22mm	100mA	SPDT	none	IP40	ring colored (non illumination)	yellow	none	3-145-683
22mm	5A	SPDT	none	IP40	ring colored (non illumination)	yellow	none	3-145-684
22mm	100mA	SPDT	none	IP40	ring colored (non illumination)	white	none	3-145-685
22mm	5A	SPDT	none	IP40	ring colored (non illumination)	white	none	3-145-686
22mm	100mA	SPDT	none	IP40	ring colored (non illumination)	orange	none	3-145-687
22mm	5A	SPDT	none	IP40	ring colored (non illumination)	orange	none	3-145-688
22mm	5A	SPDT	none	IP40	ring illumination deadfront	green	24V DC	3-145-711
22mm	5A	SPDT	none	IP40	ring illumination deadfront	blue	24V DC	3-145-722
22mm	5A	SPDT	none	IP40	ring illumination deadfront	yellow	24V DC	3-145-723
22mm	5A	SPDT	none	IP40	ring illumination deadfront	red	24V DC	3-145-724
22mm	5A	SPDT	none	IP40	ring illumination deadfront	white	24V DC	3-145-725
22mm	5A	SPDT	common cathode	IP40	ring illumination deadfront	multicolor	24V DC	3-145-726
22mm	100mA	SPDT	none	IP40	ring illumination deadfront	white	24V DC	3-145-727
22mm	10A	SPDT	none	IP40	ring illumination deadfront	white	24V DC	3-145-728
22mm	100mA	SPDT	common cathode	IP40	ring illumination deadfront	multicolor	24V DC	3-145-729
22mm	10A	SPDT	common cathode	IP40	ring illumination deadfront	multicolor	24V DC	3-145-730
22mm	100mA	SPDT	none	IP40	ring illumination	red	12V DC	3-145-731
22mm	100mA	SPDT	none	IP40	ring illumination	green	12V DC	3-145-742
22mm	100mA	SPDT	none	IP40	ring illumination	green	12V DC	3-145-743
22mm	100mA	SPDT	none	IP40	ring illumination	blue	12V DC	3-145-744
22mm	5A	SPDT	none	IP40	ring illumination	blue	12V DC	3-145-745
22mm	100mA	SPDT	none	IP40	ring illumination	red	5V DC	3-145-746
22mm	100mA	SPDT	none	IP40	ring illumination	green	5V DC	3-145-747
22mm	100mA	SPDT	none	IP40	ring illumination	blue	5V DC	3-145-748
22mm	5A	SPDT	none	IP40	ring illumination	blue	5V DC	3-145-749
22mm	5A	SPDT	none	IP40	ring illumination	blue	5V DC	3-145-750
22mm	100mA	SPDT	none	IP40	ring illumination	white	5V DC	3-145-751
22mm	100mA	SPDT	none	IP40	point illumination	red	w/o resistors	3-145-764
22mm	5A	SPDT	none	IP40	point illumination	red	w/o resistors	3-145-774
22mm	100mA	SPDT	none	IP40	point illumination	green	w/o resistors	3-145-775
22mm	5A	SPDT	none	IP40	point illumination	green	w/o resistors	3-145-776
22mm	100mA	SPDT	none	IP40	point illumination	blue	w/o resistors	3-145-777
22mm	5A	SPDT	none	IP40	point illumination	blue	w/o resistors	3-145-778

Diameter	Switching current	Electrical contact	Circuit type illumination	IP specification backside	Illumination	Illumination color	Supply Voltage LED	Order Number
22mm	100mA	SPDT	none	IP40	area illumination	red	24V DC	3-145-781
22mm	100mA	SPDT	none	IP40	area illumination	red	24V DC	3-145-782
22mm	5A	SPDT	none	IP40	area illumination	red	24V DC	3-145-783
22mm	10A	SPDT	none	IP40	area illumination	red	24V DC	3-145-784
22mm	100mA	SPDT	none	IP40	area illumination	green	24V DC	3-145-820
22mm	100mA	SPDT	none	IP40	area illumination	green	24V DC	3-145-832
22mm	5A	SPDT	none	IP40	area illumination	green	24V DC	3-145-865
22mm	10A	SPDT	none	IP40	area illumination	green	24V DC	3-145-866
22mm	100mA	SPDT	none	IP40	area illumination	blue	24V DC	3-145-867
22mm	10A	SPDT	none	IP40	area illumination	blue	24V DC	3-145-880
22mm	100mA	SPDT	none	IP40	area illumination	white	24V DC	3-145-883
22mm	100mA	SPDT	none	IP40	area illumination	white	24V DC	3-145-885
22mm	5A	SPDT	none	IP40	area illumination	white	24V DC	3-145-886
22mm	5A	SPDT	none	IP40	area illumination	white	24V DC	3-145-889
22mm	100mA	SPDT	common cathode	IP40	area illumination	multicolor	24V DC	3-145-891
22mm	5A	SPDT	common cathode	IP40	area illumination	multicolor	24V DC	3-145-900
22mm	10A	SPDT	common cathode	IP40	area illumination	multicolor	24V DC	3-145-901
22mm	10A	SPDT	common cathode	IP40	area illumination	multicolor	24V DC	3-145-902
22mm	10A	SPDT	common cathode	IP40	area illumination	multicolor	24V DC	3-145-903
22mm	5A	SPDT	none	IP40	area illumination	green	12V DC	3-145-904
22mm	5A	SPDT	none	IP40	area illumination	green	12V DC	3-145-905
22mm	100mA	SPDT	none	IP40	area illumination	blue	12V DC	3-145-906
22mm	5A	SPDT	none	IP40	area illumination	green	5V DC	3-145-907
22mm	10A	SPDT	none	IP40	area illumination	green	5V DC	3-145-908
22mm	5A	SPDT	none	IP40	area illumination	blue	5V DC	3-145-909
22mm	100mA	SPDT	none	IP40	none	none	none	3-145-931
22mm	5A	SPDT	common cathode	IP40	point illumination	multicolor	w/o resistors	3-146-033
22mm	5A	SPDT	none	IP40	area illumination	blue	24V DC	3-146-204
22mm	100mA	SPDT	none	IP40	area illumination	yellow	24V DC	3-147-824
22mm	100mA	SPDT	common cathode	IP67	ring illumination	multicolor	5V DC	3-148-466
22mm	100mA	SPDT	none	IP67	none	none	none	3-148-467
22mm	5A	SPDT	none	IP40	none	none	none	3-148-983
22mm	10A	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-149-109
22mm	10A	SPDT	common cathode	IP40	ring illumination	multicolor	5V DC	3-149-520
22mm	5A	SPDT	none	IP40	ring illumination	white	12V DC	3-149-723
22mm	5A	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-149-852
22mm	10A	SPDT	none	IP40	ring illumination	green	24V DC	3-149-876
22mm	5A	SPDT	none	IP40	ring illumination deadfront	red	5V DC	3-150-116
22mm	10A	SPDT	none	IP40	ring illumination deadfront	red	5V DC	3-150-117
22mm	100mA	SPDT	none	IP40	point illumination	white	12V DC	3-150-481
22mm	6A	SPDT	none	IP67	ring illumination	yellow	24V DC	3-151-539
22mm	100mA	SPDT	common cathode	IP67	ring illumination	multicolor	5V DC	3-151-671
22mm	100mA	SPDT	-	IP40	ring illumination	multicolor	5V DC	3-151-950
22mm	100mA	SPDT	none	IP40	ring illumination	green	24V DC	3-152-255
22mm	10A	SPDT	none	IP40	area illumination	white	24V DC	3-152-975
22mm	100mA	SPDT	none	IP40	none	none	none	3-153-591
22mm	6A	SPDT	none	IP67	ring illumination	white	12V DC	3-154-675

Diameter	Switching current	Electrical contact	Circuit type illumination	IP specification backside	Illumination	Illumination color	Supply Voltage LED	Order Number
22mm	100mA	SPDT	common cathode	IP67	ring illumination	multicolor	w/o resistors	3-154-812
22mm	100mA	SPDT	none	IP67	area illumination	blue	24V DC	3-155-121
22mm	100mA	SPDT	none	IP67	area illumination	white	24V DC	3-155-122
22mm	100mA	SPDT	none	IP67	area illumination	white	24V DC	3-155-123
22mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-155-332
22mm	100mA	SPDT	none	IP40	ring illumination	white	24V DC	3-155-426
22mm	100mA	SPDT	common anode	IP40	ring illumination	multicolor	w/o resistors	3-155-883
22mm	6A	SPDT	none	IP67	ring illumination	green	12V DC	3-157-548
22mm	100mA	SPDT	none	IP40	point illumination	white	5V DC	3-157-771
22mm	100mA	SPDT	none	IP40	ring illumination	green	w/o resistors	3-158-112
22mm	100mA	SPDT	none	IP40	ring illumination	green	w/o resistors	3-158-115
22mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	w/o resistors	3-158-655
24mm	100mA	SPDT	none	IP40	none	none	none	3-145-568
24mm	5A	SPDT	none	IP40	none	none	none	3-145-569
24mm	10A	SPDT	none	IP40	none	none	none	3-145-570
24mm	100mA	SPDT	none	IP40	none	none	none	3-145-571
24mm	5A	SPDT	none	IP40	none	none	none	3-145-572
24mm	100mA	SPDT	none	IP40	none	none	none	3-145-578
24mm	100mA	SPDT	none	IP40	none	none	none	3-145-582
24mm	100mA	SPDT	none	IP40	none	none	none	3-145-584
30mm	100mA	SPDT	none	IP40	none	none	none	3-145-587
30mm	5A	SPDT	none	IP40	none	none	none	3-145-589
30mm	10A	SPDT	none	IP40	none	none	none	3-145-590
30mm	100mA	SPDT	none	IP67	none	none	none	3-145-592
30mm	6A	SPDT	none	IP67	none	none	none	3-145-593
30mm	100mA	SPDT	none	IP40	none	none	none	3-145-597
30mm	100mA	SPDT	none	IP40	none	none	none	3-145-598
30mm	100mA	SPDT	none	IP40	ring illumination	red	24V DC	3-145-603
30mm	5A	SPDT	none	IP40	ring illumination	red	24V DC	3-145-608
30mm	5A	SPDT	none	IP40	ring illumination	red	24V DC	3-145-609
30mm	5A	SPDT	none	IP40	ring illumination	red	24V DC	3-145-610
30mm	5A	SPDT	none	IP40	ring illumination	red	24V DC	3-145-611
30mm	10A	SPDT	none	IP40	ring illumination	red	24V DC	3-145-613
30mm	100mA	SPDT	none	IP40	ring illumination	green	24V DC	3-145-615
30mm	5A	SPDT	none	IP40	ring illumination	green	24V DC	3-145-619
30mm	10A	SPDT	none	IP40	ring illumination	green	24V DC	3-145-620
30mm	100mA	SPDT	none	IP40	ring illumination	blue	24V DC	3-145-622
30mm	5A	SPDT	none	IP40	ring illumination	blue	24V DC	3-145-625
30mm	5A	SPDT	none	IP40	ring illumination	blue	24V DC	3-145-626
30mm	5A	SPDT	none	IP40	ring illumination	blue	24V DC	3-145-627
30mm	10A	SPDT	none	IP40	ring illumination	blue	24V DC	3-145-629
30mm	100mA	SPDT	none	IP40	ring illumination	yellow	24V DC	3-145-630
30mm	5A	SPDT	none	IP40	ring illumination	yellow	24V DC	3-145-632
30mm	5A	SPDT	none	IP40	ring illumination	white	24V DC	3-145-634
30mm	5A	SPDT	none	IP40	ring illumination	white	24V DC	3-145-636
30mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-145-637
30mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-145-639

Diameter	Switching current	Electrical contact	Circuit type illumination	IP specification backside	Illumination	Illumination color	Supply Voltage LED	Order Number
30mm	100mA	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-145-640
30mm	10A	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-145-641
30mm	100mA	SPDT	none	IP40	ring illumination	red	12V DC	3-145-642
30mm	100mA	SPDT	none	IP40	ring illumination	green	12V DC	3-145-643
30mm	5A	SPDT	none	IP40	ring illumination	green	12V DC	3-145-644
30mm	100mA	SPDT	none	IP40	ring illumination	white	5V DC	3-145-645
30mm	5A	SPDT	none	IP40	point illumination	red	w/o resistors	3-145-646
30mm	100mA	SPDT	none	IP40	point illumination	green	w/o resistors	3-145-647
30mm	5A	SPDT	none	IP40	point illumination	green	w/o resistors	3-145-648
30mm	10A	SPDT	none	IP40	point illumination	green	w/o resistors	3-145-649
30mm	100mA	SPDT	none	IP40	point illumination	blue	w/o resistors	3-145-650
30mm	5A	SPDT	none	IP40	point illumination	blue	w/o resistors	3-145-651
30mm	5A	SPDT	none	IP40	ring colored (non illumination)	red	none	3-145-652
30mm	5A	SPDT	none	IP40	ring colored (non illumination)	green	none	3-145-653
30mm	5A	SPDT	none	IP40	ring colored (non illumination)	blue	none	3-145-654
30mm	5A	SPDT	none	IP40	ring colored (non illumination)	black	none	3-145-655
30mm	5A	SPDT	none	IP40	ring illumination deadfront	white	24V DC	3-145-656
30mm	5A	SPDT	common cathode	IP40	ring illumination deadfront	multicolor	24V DC	3-145-657
30mm	5A	SPDT	common cathode	IP40	ring illumination	multicolor	24V DC	3-146-175
30mm	5A	SPDT	common cathode	IP40	ring illumination	multicolor	5V DC	3-149-248
30mm	5A	SPDT	none	IP40	ring illumination	blue	5V DC	3-149-249
30mm	100mA	SPDT	none	IP40	point illumination	red	24V DC	3-149-457
30mm	100mA	SPDT	none	IP40	ring illumination	green	12V DC	3-149-458
30mm	5A	SPDT	common cathode	IP40	ring illumination deadfront	multicolor	5V DC	3-150-315
30mm	100mA	SPDT	common cathode	IP67	ring illumination	multicolor	5V DC	3-151-231
30mm	5A	SPDT	none	IP40	ring illumination	red	24V DC	3-152-554
30mm	100mA	SPDT	none	IP40	point illumination	red	12V DC	3-153-567
30mm	100mA	SPDT	none	IP40	none	none	none	3-153-592
30mm	5A	SPDT	common cathode	IP40	ring illumination	multicolor	12V DC	3-154-385
30mm	6A	SPDT	none	IP67	ring illumination	green	24V DC	3-155-354
30mm	5A	SPDT	common cathode	IP40	ring illumination	multicolor	5V DC	3-155-360
30mm	100mA	SPDT	none	IP67	ring illumination	white	24V DC	3-157-009
30mm	5A	SPDT	none	IP40	ring illumination	red	24V DC	3-158-659

Availability for all products can be searched real-time: https://www.schurter.com/en/info-center/support-tools/stock-check-distributors

1) Microswitch SPDT / Indicator with quick connect terminals

2) Subminiature Switch SPDT / Indicator with solder terminals

3) Subminiature Switch DPDT with solder terminals

Packaging unit	10 pcs.	In box or packed in air cushion bags

The nut with gasket and micro switch are enclosed in the box.

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The specifications, descriptions and illustrations indicated in this document are based on current information. All content is subject to modifications and amendments. Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability and test each product selected for their own applications.