SCHMERSAL Non-Illuminated 22mm IP69K Joystick Selector Switches

Features

- Spring-return (momentary)
- 22mm mounting hole
- Knurled mounting nut
- 6mm front plate thickness
- Front ring material: Plastic
- Bellows material: Silicone
- IP69K

Blue

Gray

Non-Illuminated 22mm IP69K Joystick Selector Switches				
Part Number	***Price***	***Drawing Link***	***Color***	***Operation***
NK-T-21-1ST8-2	$04c0q:	PDF	blue bellows	Schmersal selector switch, IP65, IP67, IP69, and IP69k, 22mm, 2-position, momentary, (2) N.O. contact(s), plastic base, plastic bezel, Operator: blue, joystick, round, plastic.
NK-T-41-1ST8-2	$04c0s:	PDF		Schmersal selector switch, IP65, IP67, IP69, and IP69k, 22mm, 4-position, momentary, (4) N.O. contact(s), plastic base, plastic bezel, Operator: blue, joystick, round, plastic.
NK-T-22-2ST8-2	$;04c0t:	PDF		Schmersal selector switch, IP65, IP67, IP69, and IP69k, 22mm, 2-position, momentary, (4) N.O. contact(s), plastic base, plastic bezel, Operator: blue, joystick, round, plastic.
NK-T-42-2ST8-2	$04c0u:	PDF		Schmersal selector switch, IP65, IP67, IP69, and IP69k, 22mm, 4-position, momentary, (8) N.O. contact(s), plastic base, plastic bezel, Operator: blue, joystick, round, plastic.
RK-T-21-1ST8-2	$04c0v:	PDF	gray bellows	Schmersal selector switch, IP65, IP67, IP69, and IP69k, 22mm, 2-position, momentary, (2) N.O. contact(s), plastic base, plastic bezel, Operator: gray, joystick, round, plastic.
RK-T-41-1ST8-2	$04c0x:	PDF		Schmersal selector switch, IP65, IP67, IP69, and IP69k, 22mm, 4-position, momentary, (4) N.O. contact(s), plastic base, plastic bezel, Operator: gray, joystick, round, plastic.
RK-T-22-2ST8-2	$04c0y:	PDF		Schmersal selector switch, IP65, IP67, IP69, and IP69k, 22mm, 2-position, momentary, (4) N.O. contact(s), plastic base, plastic bezel, Operator: gray, joystick, round, plastic.
RK-T-42-2ST8-2	$04c0z:	PDF		Schmersal selector switch, IP65, IP67, IP69, and IP69k, 22mm, 4-position, momentary, (8) N.O. contact(s), plastic base, plastic bezel, Operator: gray, joystick, round, plastic.

Joystick Selection					
Part Number	***Service Conditions***	***Number of***			***Color***
		Switch Positions	***Contacts / Switch Position***	***Connectors***	
NK-T-21-1ST8-2	Food processing industry	2	1 (N.O.)	1 (M12, 8-pin)	black ring & blue bellows
NK-T-41-1ST8-2		4			
NK-T-22-2ST8-2		2	2 (N.O.)	2 (M12, 8-pin)	
NK-T-42-2ST8-2		4			
RK-T-21-1ST8-2	Rough ambient conditions	2	1 (N.O.)	1 (M12, 8-pin)	black ring & gray bellows
RK-T-41-1ST8-2		4			
RK-T-22-2ST8-2		2	2 (N.O.)	2 (M12, 8-pin)	
RK-T-42-2ST8-2		4			

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Joystick Selector Switches Specifications	
Rated operating voltage U_e	max. 30 VDC
Operating current I_e	max. 0.3 A
Rated insulation voltage U_i	30 V
Rated impulse withstand voltage U_{imp}	0.5 kV
Degree of pollution	2
Protection class	II x
Switching capacity	max. 7.2 W
Total actuating travel/switching angle	20°
Switching point	13° ± 4°
Actuating frequency	1200/h
Mechanical life	4-spring return positions: 1 x 10^6
	Per spring return position: 2.5 x 10^6
Ambient temperature	-40 to 80ºC [-40 to 176ºF]
Temperature changes	max 10°C / minute
Resistance to shock	30g / 11ms
Continuous shock	10g / 16ms
Protection class	Front: IP65, IP67, IP69/IP69K
	Contact chamber: IP67 (with connector attached)
	Switch rod area: IP30
Spacing	90 x 90 mm
Switch functions	2 to 4 switching directions
Type of switching functions	Button
Number of reed contacts	1 to 2 per switching direction
Connection	8-pin M12 connector
Number of terminals	1 … 2
Type of contact	N.O. contacts, shape A
Front plate thickness	6 mm
Securing tool	Box spanner AF41
Mechanical data at room temperature in new state	Mechanical strength: >200 N
	Actuating force: <20 N
Switching principle	Magnetic
Utilization category	DC-12
Max fuse rating	0.5 A FF
Required short-circuit current	100 A
Standards *	IEC 60947-1, IEC 60947-5-1

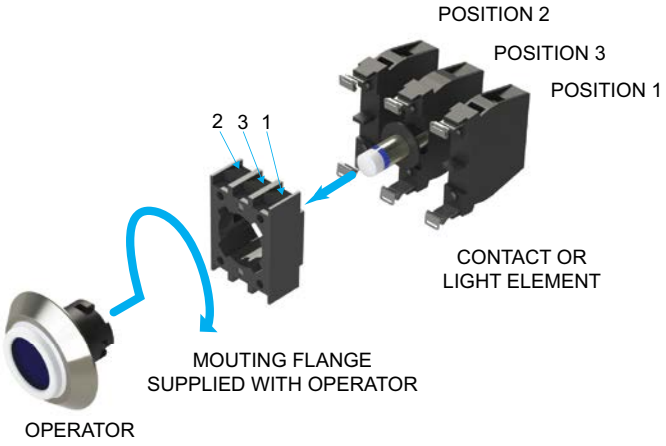
***To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.**

SCHMERSAL Control and Signaling Devices 22mm IP69K

Schmersal control and signaling devices have a number of special design features that make the devices suitable for food processing, pharmaceutical, and medical applications. When utilized in food processing machines, these devices comply with the special cleaning requirements of the industry to prevent cross-contamination, particularly when used in machines that process raw goods. With an ingress protection rating of IP69K, Schmersal control and signaling devices are also suitable for marine applications, traffic systems, commercial vehicles, and in dusty and dirty environments.

Features

- Special seals prevent product residue from penetrating in the gaps between the fixed and moving device parts, thus preventing the collection of dirt and bacteria in places that are not easily accessible for cleaning.
- Smooth designs make the devices easy to clean.
- Modular contact and light terminal blocks make the devices easy to install.



IP69K Ingress Protection Rating Overview

IP69K high-pressure cleaning test
This rating applies to devices tested in accordance with DIN 40050-9. The goal of this test is to duplicate pressure cleaning conditions on a plant floor. In the test fixture, the devices are exposed to a 1450psi spray of water at a temperature of 175˚F. The duration of each cleaning cycle is 30 seconds. The test is performed at specified angles using a spray nozzle located at a distance of 4" from the devices. Devices with this rating must withstand test conditions and still be operable. This rating ensures water proofing protection that exceeds NEMA 4X rating.

Thermal endurance
In pressure environments, controls and signaling devices can be exposed to extreme temperature conditions. To meet the criteria for IP69K rating, devices must undergo a thermal shock test by cycling the environmental temperature to ensure consistent high reliability.