S SCHMERSAL Illuminated 22mm IP69K Plastic Pushbuttons







NDLGB



NDLGN



NDLRT



Illumin	ated 22mn	n IP69K Pl	astic Push	buttons*			
Part Number	<u>NDLBL</u>	<u>NDLGB</u>	<u>NDLGN</u>	<u>NDLRT</u>	<u>NDLWS</u>		
Color	Blue	Yellow	Green	Red	White		
Price	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00		
Drawing Link	<u>PDF</u>	PDF	<u>PDF</u>	<u>PDF</u>	<u>PDF</u>		
Description	Momen	tary action illumina	ted IP69K pushbu	ttons with mounting	g flange		
Mounting diameter		22.3 mm [0.88 in]					
Actuating stroke	5mm						
Dome material	ABS						
Front ring material	ABS, chromium-plated						
Front panel thickness	1.5 to 6 mm						
Weight	30g [1.06 oz]						
Mounting screws tightening torque	0.6 N·m [0.44 lb·ft]						
Ambient temperature	-25 to +80°C [-13 to +176°F]						
Shock resistance	< 50g						
Vibration resistance	5g						
Ingress protection	IP67 and IP69K						
Standards		EN 60947-5-1; IE	C/EN 60947-1; UL	File E57648, CE			

^{*}Operator only. Purchase contact and light blocks separately.

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5 SCHMERSAL Light Terminal Blocks







FI DE Nyy2/



ELE



ELE230

Light Terminal Blocks							
Part Number	Color	Price	Drawing Link	Voltage	Wattage	Diagram	Function
ELDE.NBL230	Dive	\$45.50	PDF	115-230 VAC	4		
ELDE.NBL24	Blue	\$24.50	PDF	24 VAC/VDC	0.4		
ELDE.NGB230	Vallann	\$45.50	PDF	115-230 VAC	4		
ELDE.NGB24	Yellow Green	\$24.50	PDF	24 VAC/VDC	0.4		
ELDE.NGN230		\$45.50	PDF	115-230 VAC	4		Integrated
ELDE.NGN24		\$24.50	PDF	24 VAC/VDC	0.4	X1 ∘ 	LĔD
ELDE.NRT230		\$45.50	PDF	115-230 VAC	4		
ELDE.NRT24	Red	\$24.50	PDF	24 VAC/VDC	0.4		
ELDE.NWS230	\A#-11-	\$45.50	PDF	115-230 VAC	4		
ELDE.NWS24	White	\$24.50	PDF	24 VAC/VDC	0.4		
ELE	-	\$10.50	PDF	24 VAC/VDC	1	X10	Ba9S Lamp
ELE230	-	\$28.00	PDF	115-230 VAC	1	X10	holder

Ba9S Bulbs for ELE and ELE230 Light Terminal Blocks							
Part Number	Color	Price	Qty	Lamp Voltage	Current Consumption	Power Consumption	Lamp Durability
APX510-24R	Red	\$17.00				0.8 W	30,000h
APX510-24G	Green	\$17.00					
APX510-24Y	Yellow	\$17.00	2	24V AC/DC	12mA AC 11mA DC		
APX510-24S	Blue	\$63.00		NOIDO	Timpreso		
APX510-240	Orange	\$17.00					



APX510-24R

Replacement LED Lamps for ELE and ELE230 Light Terminal Blocks							
Part Number	Color	Price	Qty	Lamp Voltage	Current Consumption	Power Consumption	Lamp Durability
ECX1911-2	Red	\$17.50		2 24V AC/DC	14mA	0.6 W	100,000h
ECX1912-2	Green	\$22.00			13mA		
ECX1913-2	Yellow	\$17.50	2		13.3 mA		
ECX1914-2	Blue	\$23.50			13mA		
ECX1915-2	White	\$28.00			19mA		



NOTE: ELE230 has transformer to step down to 24V

Mounting Flange					
Part Number	Price	Description	Drawing Link		
<u>ELM</u>	\$5.00	Schmersal mounting flange, replacement. For use with E and N series illuminated pushbuttons.	<u>PDF</u>		



ELM

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S SCHMERSAL Contact Blocks



EF03.2



EF10.′



EF103.2

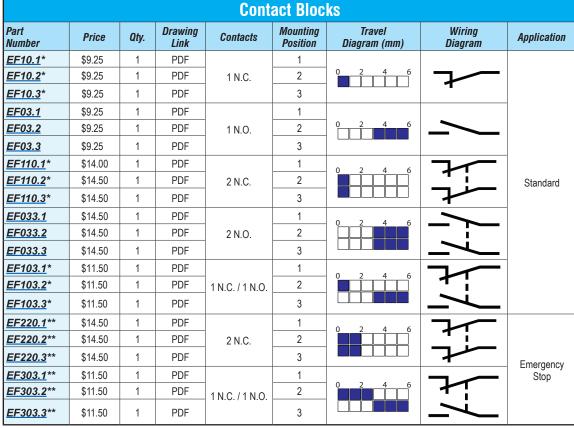


EF220.2



EF303.2

EFM



^{*}Not suitable for Emergency Stop devices

Travel Diagram Legend

= contact closed

= contact open

Numbers indicate distance in mm



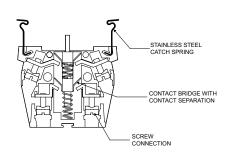


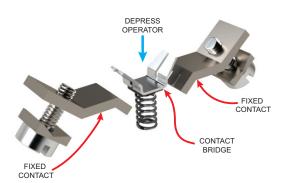
^{**}Not suitable for maintained selector switches NWS/NWT

SCHMERSAL Contact Blocks and Light **Terminal Blocks Overview**

Features

- A self-cleaning contact bridge system, known as Elan four-way system, which is particularly suitable for low voltage applications and has a lower switching capacity of 5VDC/3.2 mA (max. 400VAC/8A). It is designed in the form of a bent twin contact bridge, with parallel and also diagonal operation.
- Block mounting via snap-on stainless steel springs.
- Complete terminal designations visible at a glance in compliance with IEC 60 947-1 (VDE 0660, Part 100) with a complete function and sequence number (refer also to product ranges). The function number identifies the N.C. and N.O. contact. The sequence number specifies the number and the order of the contacts on the complete switching device.
- N.C. contacts with positive opening in compliance with IEC 60 947-5-1 (VDE 0660
- Galvanically isolated contact circuits in 2-pole blocks.
- High resistance to shock and vibrations.





	Technical Specifications						
	Contact Blocks	Light Blocks (ELE)	Light Blocks (ELDE)				
General description	Contact element	Light terminal block w/Ba9S base	Light terminal block w/LED				
Enclosure material	Plastic, glass fiber reinforced	Plastic, glass fiber reinforced	Plastic, glass fiber reinforced				
Contact material	Fine-silver, phosphor bronze or brass carrier	_	_				
Utilization category	AC-15: 250 V / 8 A DC-13: 24 V / 5 A	-	-				
Suitability for low voltages	≥ 5VDC / 3.2 mA	_	_				
Rated insulation voltage Ui	400V	440V	440V				
Rated impulse withstand voltage U _{imp}	4kV	-	-				
Thermal test current Ithe	10A	-	_				
Max. fuse rating	10A gG D-fuse slow blow 10A gG T-slow blow		10A gG T-slow blow				
Wire size	0.5 mm² to 2.5 mm² (20 - 14 AWG)						
Tightening torque wire connection	Maximum 1 N·m (0.74 lb·ft)						
NEMA contact rating	A300 / P300	-	-				
Switching frequency	1200 s/h	_	_				
Switching capacity	5VDC / 3.2 mA (max 400VAC / 8A)	_	_				
Mechanical life	10,000,000 operation	-	-				
Resistance to shock	110 g/4ms to 30 g/18ms no bouncing	-	_				
Resistance to vibration	> 20 g/10ms to 200Hz	-	_				
Ambient temperature		-25 to +80°C [-13 to +176°F]					
Ingress protection rating	IP20 terminals / IP40 switching compartment	IP20 terminals	IP20 terminals				
Standards	IEC 60	947-5-1; IEC 60947-1; UL File E57648					

NEMA Contact Rating Designation						
	Thermal Current	Voltage	Volt amperes			
A300	10	300 AC	N/A			
P300	5	300 DC	138			

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S SCHMERSAL Accessories





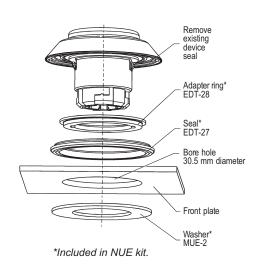




-5ST NZSO-V4A

IP69K Accessories						
Part Number	Price	Price Drawing Link Description				
<u>NB</u>	\$11.50	PDF	Schmersal pilot device hole seal, 22mm, silver.			
<u>NDP-70-ES</u>	\$9.25	N/A	Schmersal legend plate, metal, round, yellow field, yellow background, black engraved text, legend plate marking "Emergency Stop". For use with 22mm pilot devices.			
NUE	\$6.50	N/A	Schmersal pilot device hole adapter, reduces from 30.5 mm to 22.3 mm. Adapter ring, seal and washer included.			
EDT-25-5ST	\$6.75	N/A	Schmersal pilot device seal, replacement. Package of 5.			
NZSO-V4A	\$3.75	N/A	Schmersal legend plate, metal, rectangular, gray field, gray background, legend plate marking "blank". For use with 22mm pilot devices.			





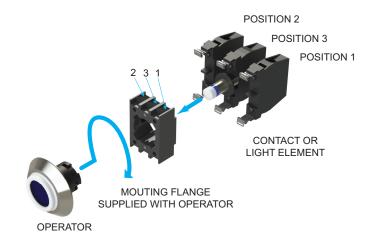
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S SCHMERSAL Control and Signaling Devices 22mm IP69K

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 crosscontamination, 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.



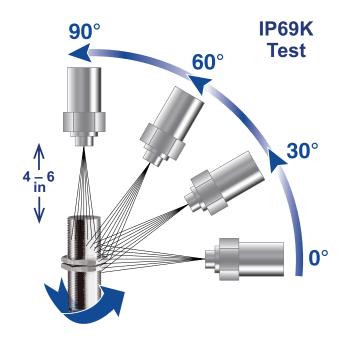
IP69K Ingress Protection Rating Overview

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.

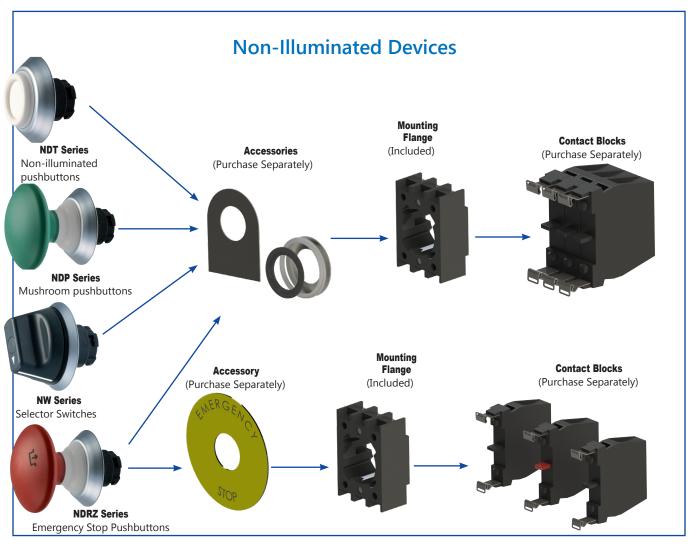
Thermal endurance

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.





S SCHMERSAL Modular Design Flexibility





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