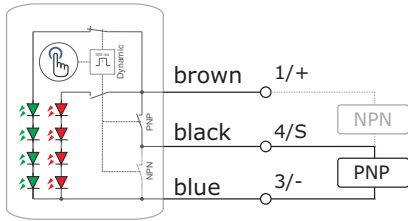


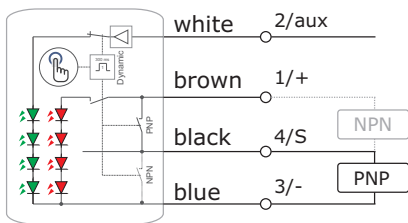
iSwitch™

Machine Operation Touch Interfaces and Indicators

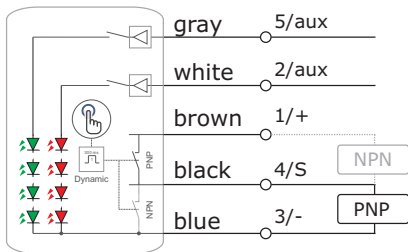
Schematic 0



Schematic 1



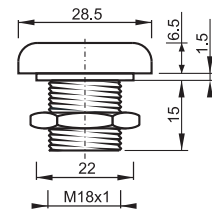
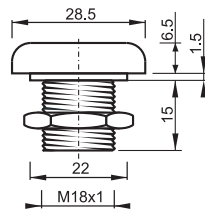
Schematic 2



Dynamic



Static



SPECIFICATIONS

Operating Voltage
Reverse Polarity Protection
Current Consumption
Output Current
Short Circuit Protection
Voltage Drop
Auxiliary Input
Impulse Duration
Number of Operations
Indicating Element
Operating Temperature
Front Window
Housing Material
Protection Class Front
Protection Class Back
Mechanical Protection Class
Programmable

Dynamic Operation

14... 30 VDC
built-in
< 30 mA
200 mA
built-in - self resetting
2.5V @200mA
> 2V, 3mA @30V
300 ms, programmable
Unlimited
High Performance LEDs
-40... +55 °C
Polycarbonate
1.4305 / SS303
IP69
IP67
IK09
Yes, UNI-PROG required

Static Operation

14... 30 VDC
built-in
< 30 mA
200 mA
built-in - self resetting
2.5V @200mA
> 2V, 3mA @30V
Continuous
Unlimited
High Performance LEDs
-40... +55 °C
Polycarbonate
1.4305 / SS303
IP69
IP67
IK09
Yes, UNI-PROG required

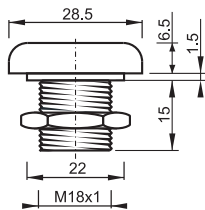
Article Code

Schematic 0, PNP - PO
Schematic 0, PNP - PC
Schematic 0, NPN - NO
Schematic 0, NPN - NC
Schematic 1, PNP - PO
Schematic 1, PNP - PC
Schematic 1, NPN - NO
Schematic 1, NPN - NC
Symbol Specification Code

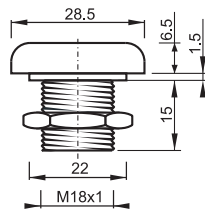
E022D T0VPOGR
E022D T0VPCGR
E022D T0VNOGR
E022D T0VNCGR
E022D T1VPOGR
E022D T1VPCGR
E022D T1VNOGR
E022D T1VNCGR
See next Pages

E022S T0VPOGR
E022S T0VPCGR
E022S T0VNOGR
E022S T0VNCGR
E022S T1VPOGR
E022S T1VPCGR
E022S T1VNOGR
E022S T1VNCGR
See next Pages

Toggle



Combo



Touch Operation

acting without tiring

Optical Feedback

clearly visible - homogeneous

Shock Resistant

vandal-proof construction

Solid State Design

absolutely no moving parts

100% Oil-Tight

completely sealed enclosure

Versatile Concept

pure multi-LED indicators available

Constant Brightness

varying voltage has no effect

Compatible

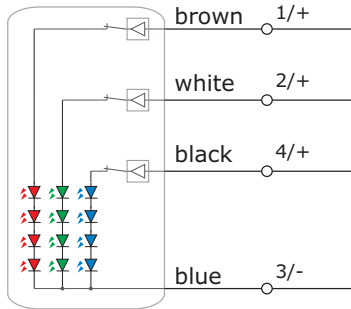
Siemens
Moeller

fits into standard Ø22.5mm holes

The touch switches from iSwitch designs in E Field Technology a near field effect smart circuitry to determine the presence of a conductive mass like a human hand or finger, grounded metal or liquid. As soon as a hand or finger touches the surface, the switch detects the presence and instantly indicates this event. Due to the physical non pressure technology, the switches can be operated without fatigue. Their solid state design with no moving parts inside allows unlimited operations with no wear. They are not affected by loose clothing, debris etc, objects which accidentally activate optical sensors type. iSwitch switches with Dynamic operation are typical start buttons for machine operation where a single impulse is required to start a process. iSwitch switches with Static operation activate their output as long as the operator touches them. They're used where a longer signal with no tiring is required. This series also can **toggle** the output each time the surface is touched. **Combo** can be used as a static switch where the output is active as long as the switch is operated. A fast double touch latches the switch with permanent On state from where it gets released by an additional touch. **Schematic 0** turns on the green LEDs as soon as the device gets powered. **Schematic 1** turns on the green LEDs as soon as aux gets active. The indicated color changes from green to red as long as the output is activated. **Schematic 2** disconnects all LEDs from the internal signal processing. External positive voltages at the **auxiliary** inputs will constantly turn on their corresponding LEDs as long as the signal is present.

Latched Operation	Combined Operation
14... 30 VDC	14... 30 VDC
built-in	built-in
< 30 mA	< 30 mA
200 mA	200 mA
built-in - self resetting	built-in - self resetting
2.5V @200mA	2.5V @200mA
> 2V, 3mA @30V	> 2V, 3mA @30V
Continuous	Special
Unlimited	Unlimited
High Performance LEDs	High Performance LEDs
-40... +55 °C	-40... +55 °C
Polycarbonate	Polycarbonate
1.4305 / SS303	1.4305 / SS303
IP69	IP69
IP67	IP67
IK09	IK09
Yes, UNI-PROG required	Yes, UNI-PROG required
EO22T T0VPOGR	EO22C T0VPOGR
EO22T T0VPCGR	EO22C T0VPCGR
EO22T T0VNOGR	EO22C T0VNOGR
EO22T T0VNCGR	EO22C T0VNCGR
EO22T T1VPOGR	EO22C T1VPOGR
EO22T T1VPCGR	EO22C T1VPCGR
EO22T T1VNOGR	EO22C T1VNOGR
EO22T T1VNCGR	EO22C T1VNCGR
See next Pages	See next Pages

Schematic



Shock Resistant
vandal-proof construction

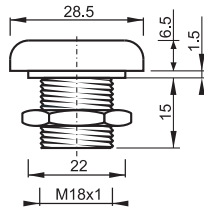
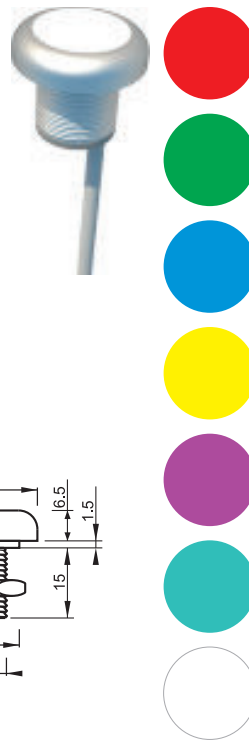
7 Different Colors
each LED can be driven individually

100% Oil-Tight
completely sealed enclosure

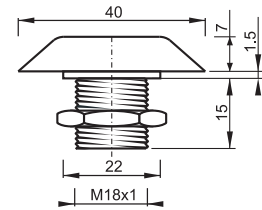
Constant Brightness
varying voltage has no effect

Compatible Siemens Moeller
fits into standard Ø22.5mm holes

Standard



Hygienic



SPECIFICATIONS

	Multi-LED Standard	Multi-LED Hygienic
Operating Voltage	14... 30 VDC	14... 30 VDC
Reverse Polarity Protection	built-in	built-in
Current Consumption	< 11 mA per string	< 11 mA per string
Voltage Drop (Red)	~ 8 V	~ 8 V
Voltage Drop (Green)	~ 14 V	~ 14 V
Voltage Drop (Blue)	~ 13 V	~ 13 V
Voltage Drop (Yellow)	~ 8 V	~ 8 V
Voltage Drop (White)	~ 13 V	~ 13 V
Auxiliary Input	depends on LED color	depends on LED color
Indicating Element	High Performance LEDs	High Performance LEDs
Operating Temperature	-40... +55 °C	-40... +55 °C
Front Window	Polycarbonate	Polycarbonate
Housing Material	1.4305 / SS303	1.4305 / SS303
Protection Class Front	IP69	IP69
Protection Class Back	IP67	IP67
Mechanical Protection Class	IK09	IK09
Programmable	No	No

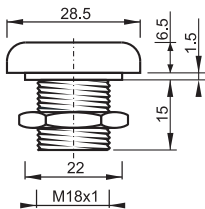
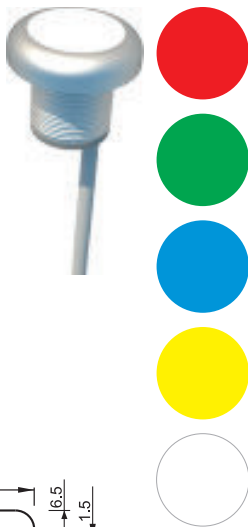
Article Code

Multi-LED	ELS22 T-VRGB	ELH22 T-VRGB
Single LED, Red		
Single LED, Green		
Single LED, Blue		
Single LED, White		

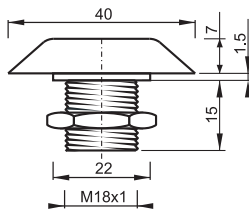
iSwitchtm

Machine Operation Single Color LED-Indicator

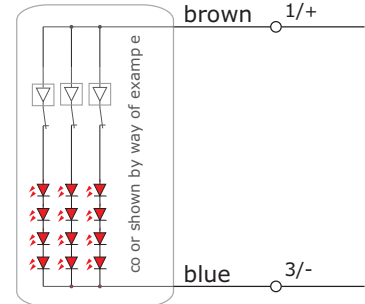
Standard



Hygienic



Schematic



Shock Resistant

vandal-proof construction

5 Different Colors

maximum brightness

100% Oil-Tight

completely sealed enclosure

Constant Brightness

varying voltage has no effect

Compatible

Siemens
Moeller
fits into standard Ø22.5mm holes

Single-LED Standard

14... 30 VDC
built-in
< 11 mA per string
~ 8 V
~ 14 V
~ 13 V
~ 8 V
~ 13 V
depends on LED color
High Performance LEDs
-40... +55 °C
Polycarbonate
1.4305 / SS303
IP69
IP67
IK09
No

Single-LED Hygienic

14... 30 VDC
built-in
< 11 mA per string
~ 8 V
~ 14 V
~ 13 V
~ 8 V
~ 13 V
depends on LED color
High Performance LEDs
-40... +55 °C
Polycarbonate
1.4305 / SS303
IP69
IP67
IK09
No

These very flexible Multi Color LED Indicators from iSwitch fit into the same mounting holes the Ø22mm iSwitch uses and were also used by the mechanical switches and filament lamps from Siemens® and Moeller®.

Each LED path can be driven individually to select one of 7 different colors enabling the user to display e.g.

- ready
- all parts in position
- machine processing
- low part count in magazine
- error

with a single indicator.

Each indicator additionally can be upgraded with a pictogram to point the meaning of it even more.

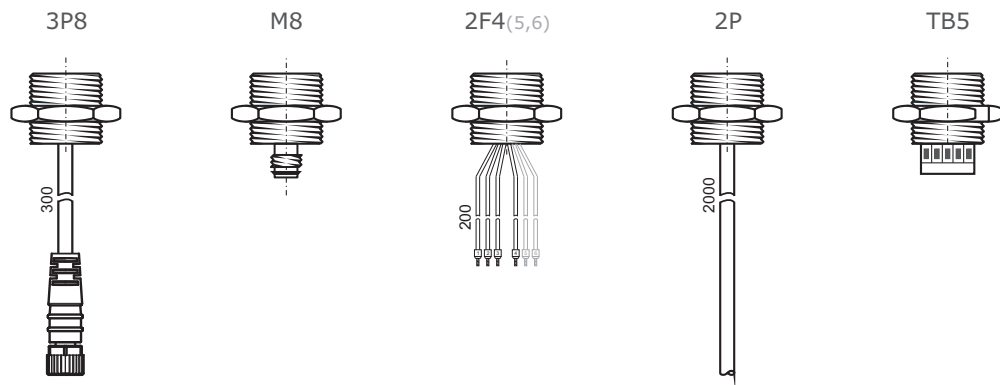
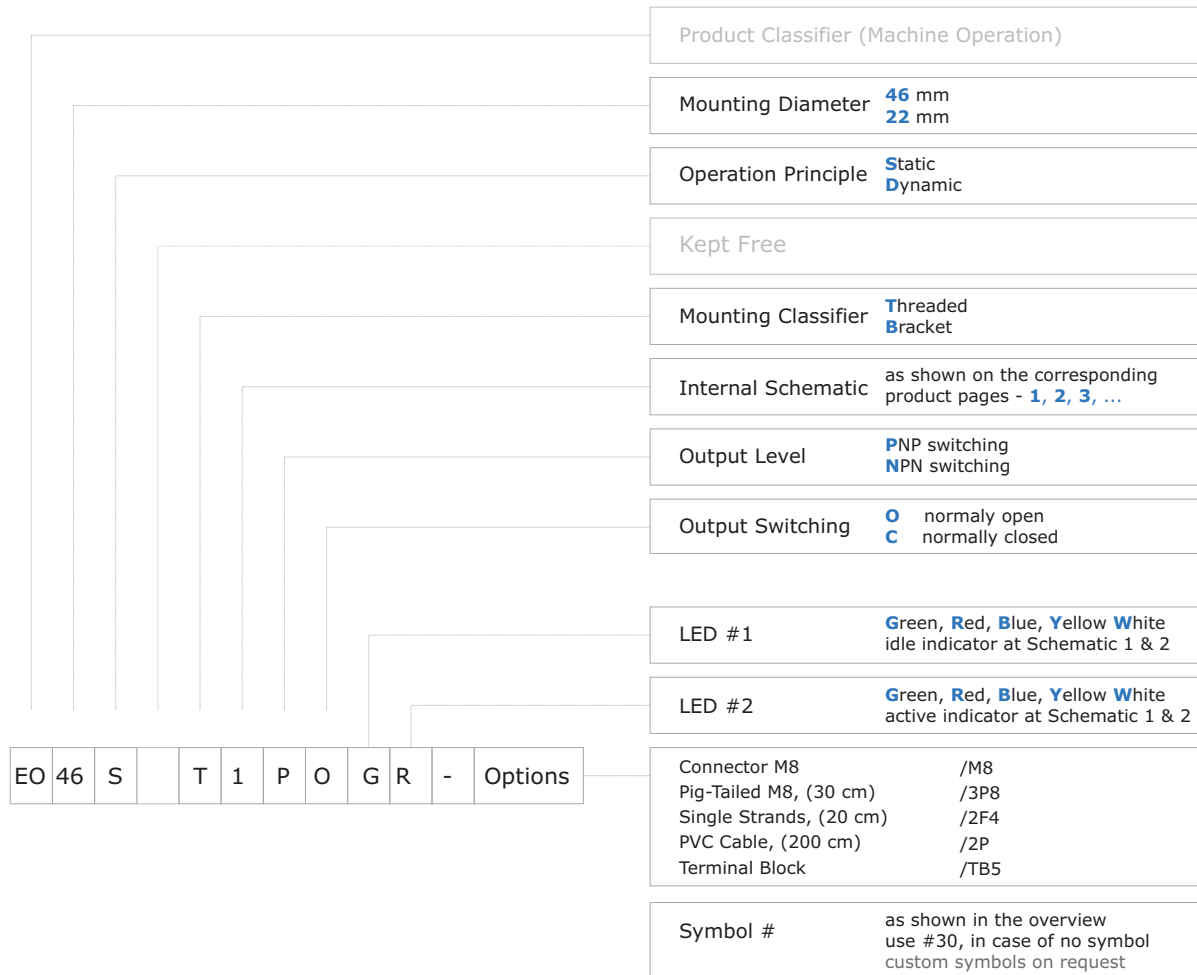
The Single LED Indicators on the right are using 12 very bright LEDs of a single color and thereby reaching significant more brightness on standard colors.

ELS22 T-VRRR
ELS22 T-VGGG
ELS22 T-VBBB
ELS22 T-VWWW

ELH22 T-VRRR
ELH22 T-VGGG
ELH22 T-VBBB
ELH22 T-VWWW

See next pages

How to build Order Codes



Standard Pictograms

