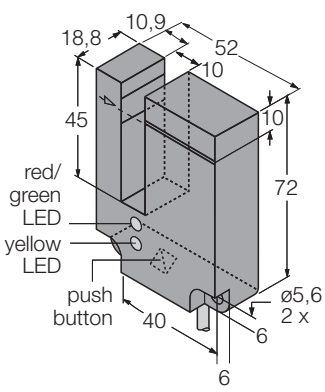
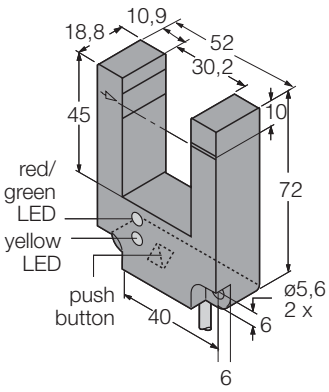
Optical slot sensors

Dimensions [mm]

● **Cable**

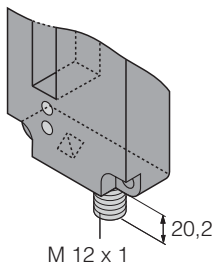


SLE10...

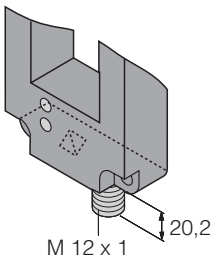


SLE30...

● **Connector**

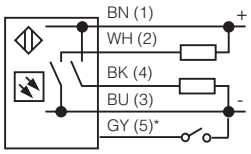


SLE10...



SLE30...

Wiring



* external programming cable (TEACH)

SLE10/SLE30 *Expert*™ series
TEACH-mode slot sensors

Wave length	
Red	680 nm
Adjustment	sensitivity light/dark operate
Supply	
Supply voltage	10…30 V dc
Ripple V_{pp}	≤ 10 %
No load current	≤ 45 mA
Protection	reverse polarity overload short-circuit transient voltages
Output	
Continuous load current	≤ 150 mA
Switching frequency	≤ 1 kHz ≤ 3,3 kHz (SLE...**Y**)
Material	
Housing	ABS/polycarbonate
Lens	acrylic
Protection class (IEC 60529/EN 60529)	IP67
Temperature range	-20…+70 °C
Cable	2 m, PVC, 5 x 0,5 mm²
Connector	*eurocon* (M12 x 1)
Indicator LED's	
Green	power-on
Green flashing	output marginal
Yellow (RUN-mode)	output state
Yellow (static TEACH-mode)	teach ON or OFF condition
Yellow flashing (dynamic TEACH-mode)	ready for dynamic teach
Red	signal strength

Accessories

Bracket		
SMBSL	30 583 35	angled bracket
Connectors		
WAK4.5-2/P00	80 085 76	straight type
WWAK4.5-2/P00	80 085 83	right-angled type

SLE10/SLE30 *Expert*™
TEACH-mode slot sensors

Optical slot sensors	Typ. excess gain*	Slot width	Light source	Output function	Connection	Type	Ident number
	150	10 mm	red	pnp, npn	cable	**SLE10B6V**	30 603 80
	150	10 mm	red	pnp, npn	connector	**SLE10B6VQ**	30 603 81
	80	10 mm	red	pnp, npn	cable	**SLE10B6VY**	30 603 82
	80	10 mm	red	pnp, npn	connector	**SLE10B6VYQ**	30 603 83
	150	30 mm	red	pnp, npn	cable	**SLE30B6V**	30 554 74
	150	30 mm	red	pnp, npn	connector	**SLE30B6VQ**	30 554 76
	80	30 mm	red	pnp, npn	cable	**SLE30B6VY**	30 554 75
	80	30 mm	red	pnp, npn	connector	**SLE30B6VYQ**	30 554 77

* Typical excess gain: indication of the sensitivity of the sensor. A minimum value of 1 is required to switch the sensor on.

Static and Dynamic Teach features

Setting the sensitivity of the SLE... sensor is performed in Teach mode. The sensor offers two methods for programming: Static Teach and Dynamic Teach. Use the built-in push button or the remote teach input for either method.

Static Teach

The sensitivity is automatically set when the sensor is taught the ON and OFF conditions. (The first condition taught is the ON condition.) Press and hold the push button for minimum 2 seconds to enter Teach mode. Then, when the push button is clicked, the sensor will sample each sensing condition and register this into its memory. After the second sensing condition is registered, the SLE... *Expert* automatically sets the sensitivity to the optimum value for the application, and then returns to RUN mode. If sensing contrast is not acceptable, the sensor will return to the beginning of Teach mode.

Dynamic Teach

This is a method of setting the sensor's sensitivity while the object to be sensed is in motion. When detecting small parts, aligning the objects to the sensor's effective beam can be difficult with the Static Teach method. In this case, Dynamic Teach will allow you to pass individual or multiple parts through the beam; the sensor will detect them and set the sensitivity automatically.

When detecting labels, web flutter may change the amount of light passing through the label and its backing material. Dynamic Teach will sense this variation and adjust the sensitivity accordingly. Dynamic Teach is activated after accessing Teach mode (press and hold the push button for a minimum of 2 seconds), and then double-click the push button. While the object to be sensed is in motion, push in and hold the button. As long as the button is held, the sampling will continue. Upon release of the button, the sensor chooses the optimum setting for the application and returns to RUN mode. If sensing contrast is not acceptable, the sensor will return to Static Teach mode; double click the push button to initiate Dynamic Teach.

Subject to changes without notice • Edition 02.02 • P/N ED060 – excerpt from EC001/0102

These sensors do not include the self-checking redundant circuitry necessary to allow their use in personnel safety applications. A sensor failure or malfunction can result in either an energised or de-energised output condition. These products should not be used as sensing devices for personnel safety.