



WLL180T

High-performance fiber-optic sensor with world's fastest response time

FIBER-OPTIC SENSORS

SICK
Sensor Intelligence.



Technical data overview

Dimensions (W x H x D)	10.5 mm x 34.6 mm x 71.9 mm
Sensing range max.	0 m ... 20 m, Through-beam system ^{1) 2)} 0 mm ... 1,000 mm, Through-beam system ^{1) 3)} 0 m ... 6 m, Through-beam system ^{2) 4)}
Light source	LED
Type of light	Visible red light / Infrared light (depending on type)
Enclosure rating	IP50 ⁵⁾
Housing material	Plastic ABS/PC
Adjustment	Menu-controlled Single teach-in button Cable

¹⁾ Sensing range with 8 ms response time. Reduction with shorter response time (see tables LL3/WLL180T).

²⁾ LL3-TX01.

³⁾ LL3-TW01.

⁴⁾ Sensing range with 200 ms response time. Reduction with shorter response time (see tables LL3/WLL180T).

⁵⁾ With correctly attached fibre-optic cable LL3 and closed protection hood.

Product description

The WLL180T fiber-optic photoelectric sensor family provides the world's fastest response time - only 16 µs. In addition, it offers superior sensing distances of up to 20 m and its high light intensity delivers a reliable, high-powered solution – even in difficult ambient conditions, like dust, spray, mist, and water jets. Commissioning is simple – either via the external teach-in input or directly on the unit. Two, four-digit displays provide visualization of all programming steps, status displays, plus target and actual values through an intuitive menu structure. The WLL180T sensors can be operated either as a stand-alone or in a bus configuration, depending on the requirements. In a bus configuration, several sensors are networked via an internal bus, enabling the settings on one WLL180T to be copied to all other devices on the bus. Fiber-optic amplifier cross-talk is prevented by the sensors' integrated anti-interference logic.

At a glance

- Selectable response time up to 16 µs
- Sensing range up to 20 m (through-beam system); up to 1,400 mm (proximity system)
- Bus-compatible with anti-interference
- 2 x 4-digit digital display
- Adjustable hysteresis
- Rotatable display screen
- High-resolution signal processing
- Programmable time delays

Your benefits

- Reliable, rapid process detection, even under the most difficult ambient conditions, such as dust, spray or mist
- Easy commissioning and product changeover due to external teach-in
- Cross-talk is eliminated when utilizing bus configuration option
- Quick, easy setup and adjustment due to an intuitive operating menu
- Flexible parameter adjustment due to high-resolution signal processing. Hysteresis and time delays can be adapted to suit the application, e.g., when detecting tiny or transparent objects
- Easy-to-read display, even under difficult installation conditions

Ordering information

Other models and accessories → www.sick.com/WLL180T

- **Sensing range max.:** 12 ... 20 m
- **Switching mode:** Light/dark switching
- **Enclosure rating:** IP50

Input	Number of switching outputs	Connection type	Adjustment	Type	Part no.
-	1	Connector M8, 3-pin	Menu-controlled, Teach-in button	WLL180T-M333	6042428
-	1	Cable with M8 male connector, 4-pin	Menu-controlled, Teach-in button	WLL180T-F434S05	6045340
		Cable with connector M8, 3-pin	Menu-controlled, Teach-in button	WLL180T-F333S01	6041001
			Teach-in button	WLL180T-M333S01	6041000
		Connector M8, 3-pin	Menu-controlled, Teach-in button	WLL180T-F333	6042429
	2	Male connector M8, 4-pin	Menu-controlled, Teach-in button, cable	WLL180T-F434S17	6062150
				WLL180T-F634	6050761
				WLL180T-M634	6050760
		Male connector M8, 4-pin	Teach-in button	WLL180T-M634S11	6050776
				WLL180T-M434S04	6045339
				WLL180T-M434S04	6045339
Multifunctional input MF	1	Cable with M12 male connector, 4-pin	Menu-controlled, Teach-in button, cable	WLL180T-P432S06	6048130
		Cable with MOLEX-connector, 3-pin	Menu-controlled, Teach-in button	WLL180T-N432S01	6041639
		Cable, 2-wire	Menu-controlled, Teach-in button, cable	WLL180T-E232	6039100
				WLL180T-F232	6039098
				Teach-in button	WLL180T-F232S01

Input	Number of switching outputs	Connection type	Adjustment	Type	Part no.
		Cable, 3-wire	Menu-controlled, Teach-in button	WLL180T-M432S01	6041508
		Cable, 4-wire	Menu-controlled, Teach-in button, cable	WLL180T-L432	6039099
				WLL180T-M432	6039097
				WLL180T-N432	6039094
				WLL180T-P432	6039093
				WLL180T-P435	6069359
		Male connector M8, 4-pin	Menu-controlled, Teach-in button	WLL180T-M434S19	6066071
				Menu-controlled, Teach-in button, cable	WLL180T-E434
			WLL180T-F434		6039102
			WLL180T-F434S08		6049026
			WLL180T-L434		6039103
			WLL180T-M434		6039101
			WLL180T-M434S16		6062149
			Teach-in button	WLL180T-M434S21	6068520
		WLL180T-N434		6039096	
	WLL180T-P434	6039095			
	WLL180T-F434S20	6066072			
	2	Cable, 5-wire	Menu-controlled, Teach-in button, cable	WLL180T-M434S07	6049025
				WLL180T-E632	6050763
				WLL180T-L632	6050762

- **Sensing range max.:** 500 ... 1000 mm
- **Switching mode:** Light/dark switching
- **Connection type:** male connector M8, 4-pin
- **Enclosure rating:** IP50

Input	Number of switching outputs	Adjustment	Type	Part no.
-	1	Menu-controlled, Teach-in button, cable	WLL180T-P474S14	6052848
	2	Menu-controlled, Teach-in button	WLL180T-M674	6064432
Multifunctional input MF	1	Menu-controlled, Teach-in button, cable	WLL180T-F474	6065732
			WLL180T-N474	6039619
			WLL180T-P474	6039618
			WLL180T-P474S01	6039620

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com