Product family overview



WLL180

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
Light source	LED
Type of light	Visible red light / Infrared light (depending on type)
Enclosure rating	IP50
Housing material	Plastic
Adjustment	Menu-controlled Teach-in button Cable (depending on type)

CE

Product description

The WLL180 switches extremely quickly with a response time of 16 µs. At the same time, the sensor offers maximum values for sensing range and operating reserve due to its high light intensity and resolution. This considerably increases process reliability, for example when used in dusty or moist environments. Commissioning is simple – either via the external teach-in input or directly on the control unit. All programming steps, status displays, and target and actual values are shown on two four-digit displays. The WLL180 can be operated either as a stand-alone sensor or in a bus configuration, depending on your requirements. In a bus configuration, several sensors are networked via an internal bus, enabling the settings on one WLL180 to be copied to all other devices on the bus. Mutual interference by fiber-optic heads installed in close proximity is prevented by the 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/WLL180

- **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

Input	Number of switching outputs	Connection type	Adjustment	Type	Part no.
-	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
		Male connector M8, 4-pin	Menu-controlled, Teach-in button, cable	WLL180T-F434S17	6062150
	2	Male connector M8, 4-pin	Menu-controlled, Teach-in button	WLL180T-F634	6050761
				WLL180T-M634	6050760
				WLL180T-M634S11	6050776
			Teach-in button	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	6041509
		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	6039104
				WLL180T-F434	6039102
				WLL180T-F434S08	6049026
				WLL180T-L434	6039103
				WLL180T-M434	6039101
				WLL180T-M434S16	6062149
				WLL180T-M434S21	6068520
				WLL180T-N434	6039096
				WLL180T-P434	6039095
			Teach-in button	WLL180T-F434S20	6066072
				WLL180T-M434S07	6049025
	2	Cable, 5-wire	Menu-controlled, Teach-in button, cable	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