



KTL180-MP4P41ZZZZZ

KTL180

CONTRAST SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
KTL180-MP4P41ZZZZZ	6068612

Other models and accessories → www.sick.com/KTL180



Detailed technical data

Features

Special applications	-
Device type	Stand-alone
Indication	Display
Display	LED status display / 2x 4-character digital dual displays. Set value (green indicator) and actual value (red indicator) are displayed simultaneously, display of parameters
Dimensions (W x H x D)	10.5 mm x 33.2 mm x 71.9 mm
Sensing range	0 mm ... 1,400 mm, Proximity system ¹⁾
Sensing distance	1 mm, 1,400 mm ¹⁾
Housing design (light emission)	Rectangular
Light source	LED, White ²⁾
Angle of dispersion	Approx. 65° ³⁾
Wave length	400 nm ... 750 nm
Teach-in mode	1-point teach-in, 2-point teach-in, teach-in dynamic
Delay time	Adjustable
Special features	Multi-function input, stand-alone mode
Delivery status	Teach-in dynamic
Parameter presettings	None

¹⁾ Objects to be sensed with 90% reflectivity (based on DIN 5033 white standard). Sensing range depends on fiber-optic cable.

²⁾ Average service life: 100,000 h at T_U = +25 °C.

³⁾ See LL3 fiber-optic data.

Mechanics/electronics

Supply voltage	12 V DC ... 24 V DC ¹⁾
Ripple	≤ 10 % ²⁾
Current consumption	≥ 50 mA (at 24 V)
Switching frequency	31.2 kHz
Response time	16 μs
Jitter	8 μs
Switching output	PNP
Switching mode	Light/dark switching
Output current I_{max.}	100 mA ³⁾
Input, blanking input (AT)	Blanked: U = 6.5 V ... < U _v : free-running: U < 5.5 V ⁴⁾
Input, light/dark (L/D)	Light: U < 6.5 V: dark: U = 5.5 V ... < U _V ⁴⁾
Retention time (ET)	25 ms, non-volatile memory
Connection type	Male connector M8, 4-pin
Protection class	III
Circuit protection	U _v connections, reverse polarity protected In-/outputs short-circuit protected Interference pulse suppression Outputs overcurrent and short-circuit protected
Enclosure rating	IP50
Weight	25 g
Housing material	Plastic, VISTAL®

1) +- 10%.

2) May not exceed or fall below U_v tolerances.

3) Total current of all Outputs.

4) Minimum pulse 300 μs.

Ambient data

Ambient operating temperature	-25 °C ... +55 °C
Ambient storage temperature	-40 °C ... +70 °C
Shock load	IEC 60068-2-27
UL File No.	EN 60947-5-2

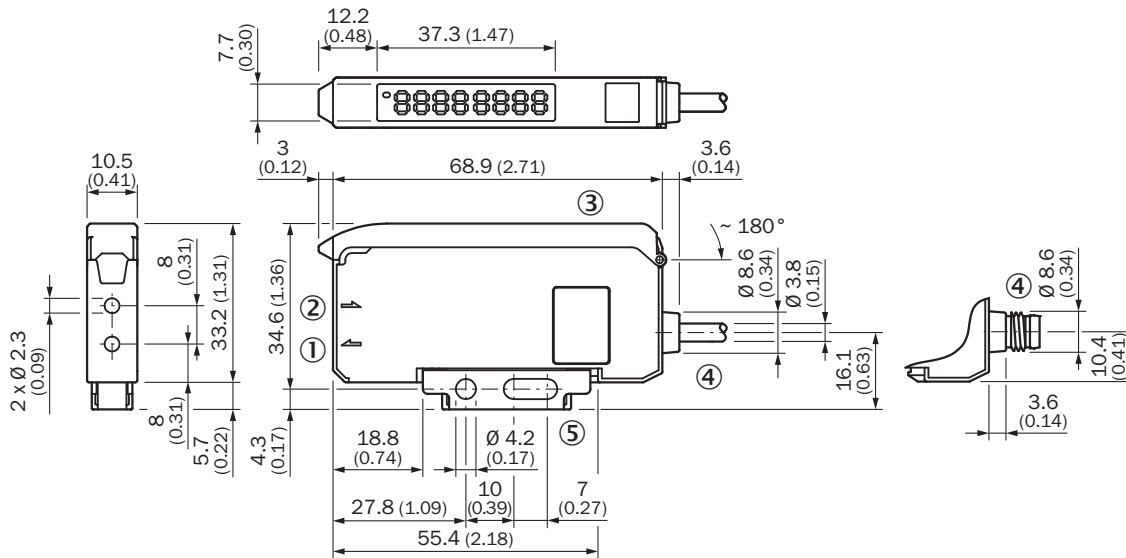
Classifications

ECl@ss 5.0	27270906
ECl@ss 5.1.4	27270906
ECl@ss 6.0	27270906
ECl@ss 6.2	27270906
ECl@ss 7.0	27270906
ECl@ss 8.0	27270906
ECl@ss 8.1	27270906
ECl@ss 9.0	27270906
ECl@ss 10.0	27270906
ECl@ss 11.0	27270906

ETIM 5.0	EC001820
ETIM 6.0	EC001820
ETIM 7.0	EC001820
UNSPSC 16.0901	39121528

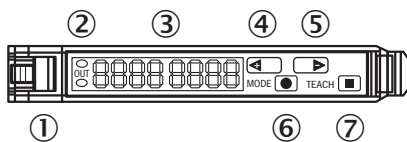
Dimensional drawing (Dimensions in mm (inch))

Stand-alone



- ① Sender LED, installation of LL3 fibre-optic cable (sender fibre)
- ② Receiver, installation of LL3 fibre optic cable (receiver fibre)
- ③ Protective hood opens approx. 180°
- ④ Connection
- ⑤ Mounting bracket, included with delivery

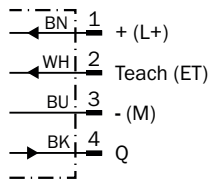
Adjustments



- ① Locking the fiber-optic cables
- ② LED indicator orange, lights up when switching output is active
- ③ Numeric display 2 x 4-digit; green: switching threshold, operating mode; red: actual value, Teach-in and function parameter
- ④ Step pushbutton > (manual switching threshold: higher/next function parameter)
- ⑤ Step pushbutton < (manual switching threshold: lower/previous function parameter)
- ⑥ Mode/Enter-button
- ⑦ Teach-in button

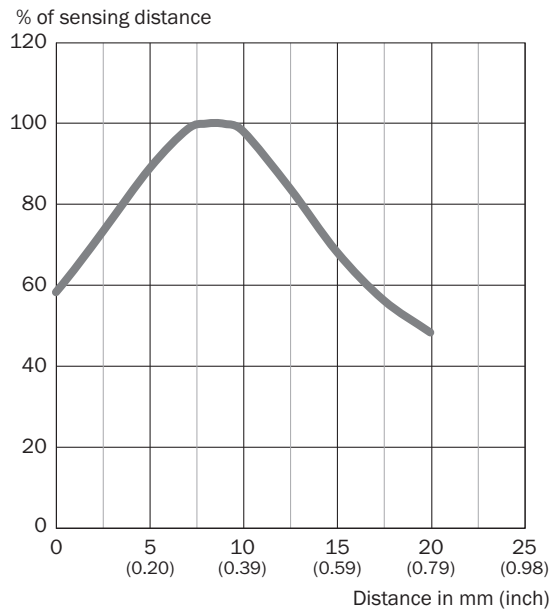
Connection diagram

Cd-380

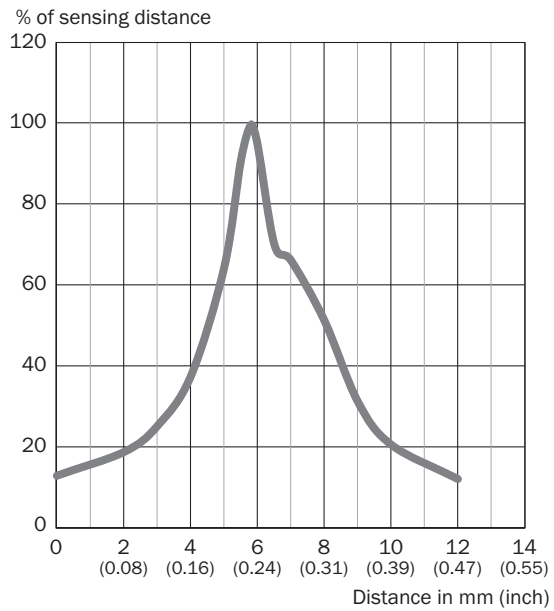


Sensing distance

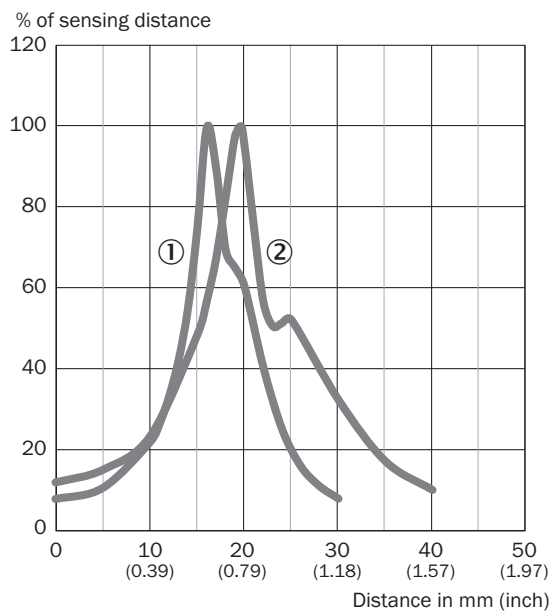
LL3-DZ01



LL3-DM02 (LL3-DA09)

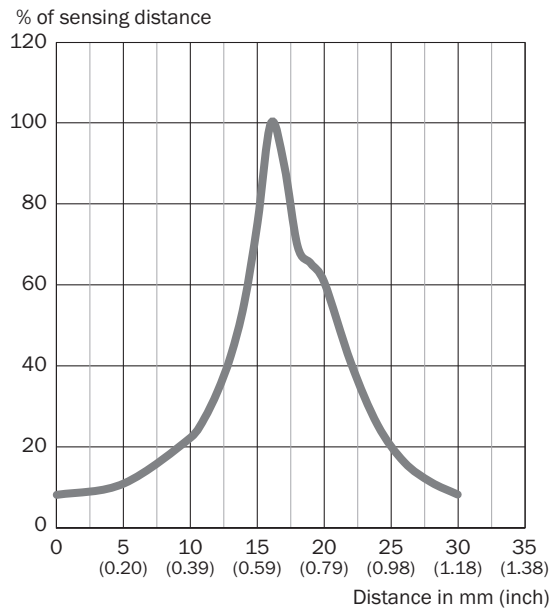


LL3-DM02 (LL3-DA06)

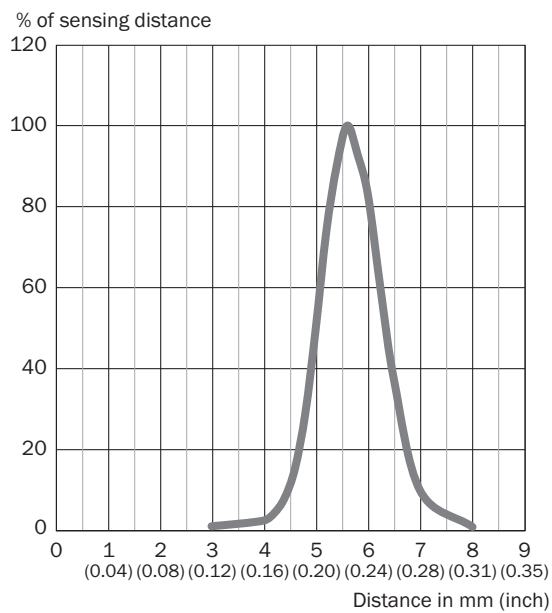


- ① Thread with 3 mm distance
- ② Thread screwed flush with the nut

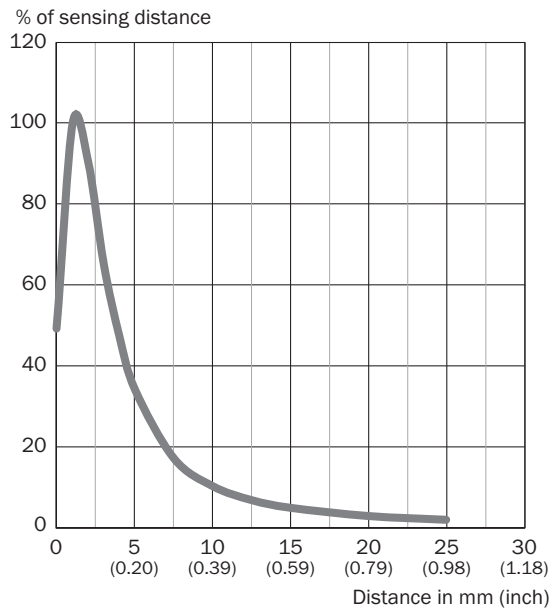
LL3-DM02 (LL3-DA06)



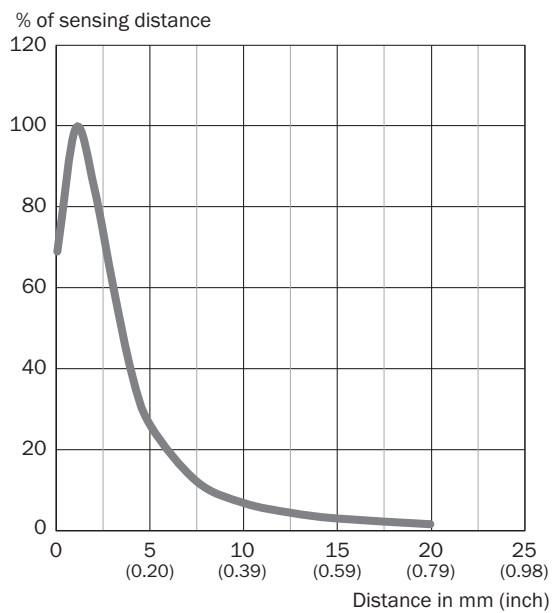
LL3-DC38



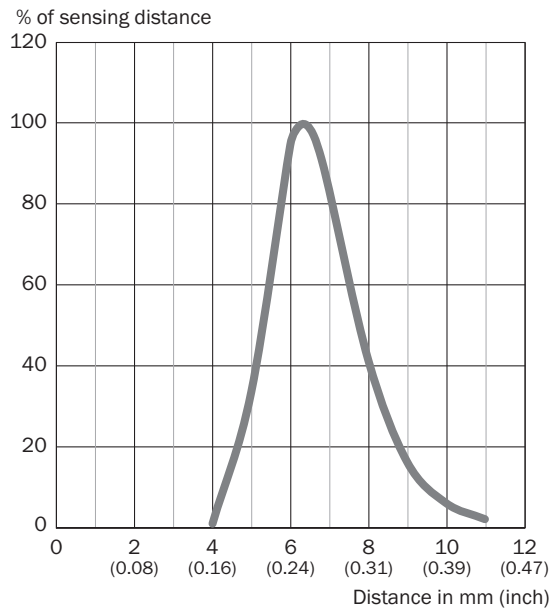
LL3-DB09, LL3-DK04, LL3-DY01



LL3-DB01, LL3-DB04, LL3DM02








LL3-DC09



Recommended accessories

Other models and accessories → www.sick.com/KTL180

	Brief description	Type	Part no.
Mounting brackets and plates			
	Mounting bracket, steel, zinc coated, without mounting hardware	BEF-WLL180	5325812
Other mounting accessories			
	Rail end piece for block mounting, stainless steel, mounting hardware included	BEF-EB01-W190	5313011
	Cutter for fibers, supplied with LL3	FC	5304141
Plug connectors and cables			
	Head A: female connector, M8, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF8U14-050VA3XLEAX	2095889
	Head A: male connector, M8, 4-pin, straight Head B: - Cable: unshielded	STE-0804-G	6037323

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:

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