



Part no.: 50135740
LCS-1Q40P-F20PNO-K003PM08
Capacitive sensor



Figure can vary

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- . Dimensioned drawings
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- . Circuit diagrams
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Technical data

Basic data	
Series	LCS-1
Switching distance S_n	1 ... 20 mm
Assured switching distance	20 mm

Electrical data	
Protective circuit	Short circuit protected Polarity reversal protection

Performance data	
Supply voltage	10 ... 30 V, DC
Residual ripple	0 ... 10 %, From U_B
Open-circuit current	15 mA
Temperature drift, max. (in % of S_r)	20 %
Repeatability, max. (in % of S_r)	5 %
Rated operating current	100 mA

Outputs	
Number of digital switching outputs	1 Piece(s)

Switching outputs	
Type	Digital switching output
Voltage type	DC

Switching output 1	
Assignment	Connection 1, pin 4
Switching element	Transistor, PNP
Switching principle	NO (normally open)

Timing	
Switching frequency	100 Hz

Connection	
Number of connections	1 Piece(s)

Connection 1	
Type of connection	Connector
Function	Signal OUT Voltage supply
Cable length	300 mm
Sheathing material	PUR
Cable color	Black
Thread size	M8
Type	Male
Material	Plastic
No. of pins	3 -pin

Mechanical data	
Design	Cubic
Dimension (W x H x L)	40 mm x 40 mm x 10 mm
Type of installation	Embedded
Housing material	Plastic, Polybutylene (PBT)
Sensing face material	Plastic, Polybutylene (PBT)

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Cover material	Plastic, Polybutylene (PBT)
Net weight	33 g
Housing color	Black

Operation and display

Type of display	LED
Number of LEDs	2 Piece(s)
Switching distance, adjustable	Yes

Environmental data

Ambient temperature, operation	-5 ... 85 °C
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Certifications

Degree of protection	IP 67
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2

Correction factors

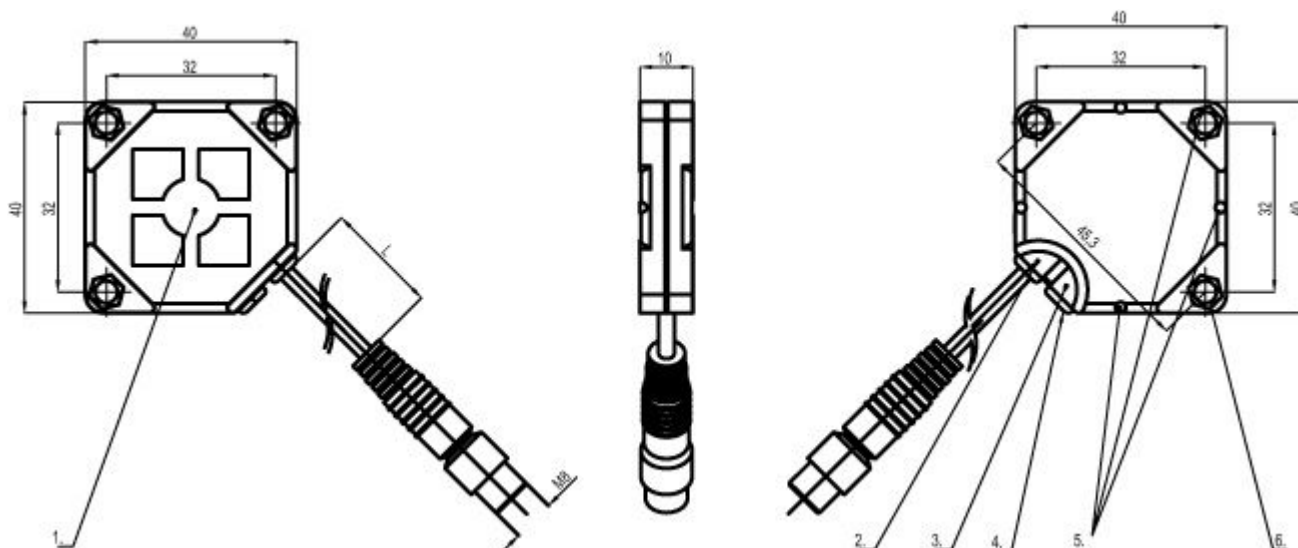
Acetone	0.75
Acrylic resin	0.1 ... 0.25
Alcohol	0.85
Ammonia	0.7 ... 0.85
Aniline	0.4
Gasoline	0.1
Celluloid	0.15
Liquid chlorine	0.1
Ebonite	0.15
Epoxy resin	0.15 ... 0.35
Crude oil	0.05
Ethanol	0.85
Ethylene glycol	0.93
Freon R22 and 502 (liquid)	0.35
Grain	0.15 ... 0.3
Glass	0.2 ... 0.55
Glycerin	0.98
Rubber	0.15 ... 0.9
Wood, wet	0.6 ... 0.85
Wood, dry	0.1 ... 0.4
Marble	0.5
Flour	0.05
Melamine resin	0.25 ... 0.55
Milk powder	0.2
Nylon	0.2 ... 0.3
Oil-containing paper	0.25
Paper	0.1
Polyamide	0.3
Polyester resin	0.15 ... 0.5
Pressboard	0.1 ... 0.3

PTFE	0.1
Quartz glass	0.2
Salt	0.35
Sand	0.15 ... 0.3
Water	1
Cement dust	0.25
Sugar	0.15

Classification	
eCl@ss 8.0	27270102
eCl@ss 9.0	27270102
ETIM 5.0	EC002715

Dimensioned drawings

All dimensions in millimeters



- 1 Active surface
- 2 Green LED, operating voltage display
- 3 Yellow LED, function indicator
- 4 Potentiometer
- 5 Mounting: cable tie
- 6 Mounting: 3xM3 screw

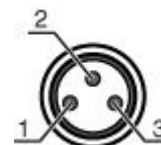
Electrical connection

Connection 1	
Type of connection	Connector
Function	Signal OUT Voltage supply
Cable length	300 mm
Sheathing material	PUR
Cable color	Black

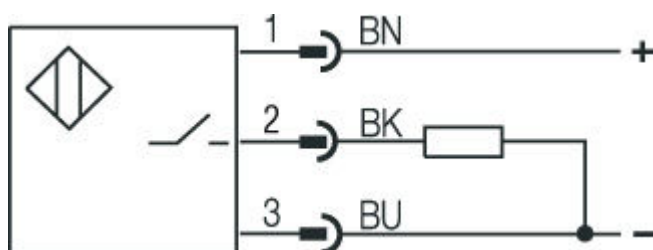
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Connection 1	
Thread size	M8
Type	Male
Material	Plastic
No. of pins	3 -pin

Pin	Pin assignment	Conductor color
1	+10...30 V DC	Brown
2	OUT	White
3	GND	Blue



Circuit diagrams





Operation and display

LEDs

















LED	Display	Meaning
1	Green, continuous light	Ready
2	Yellow, continuous light	Switching output/switching state

Accessories







Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50130842	KD U-M8-3A-P1-020	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connection 2: Open end Shielded: No Cable length: 2,000 mm Sheathing material: PUR
	50130886	KD U-M8-3A-P1-020-DP	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connector, LED: Yes, 1 Piece(s) Connection 2: Open end Shielded: No Cable length: 2,000 mm Sheathing material: PUR

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	Part no.	Designation	Article	Description
 	50130843	KD U-M8-3A-P1-030	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connection 2: Open end Shielded: No Cable length: 3,000 mm Sheathing material: PUR
 	50130844	KD U-M8-3A-P1-050	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PUR
 	50130887	KD U-M8-3A-P1-050-DP	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connector, LED: Yes, 1 Piece(s) Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PUR
 	50130845	KD U-M8-3A-P1-100	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connection 2: Open end Shielded: No Cable length: 10,000 mm Sheathing material: PUR
 	50130888	KD U-M8-3A-P1-100-DP	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connector, LED: Yes, 1 Piece(s) Connection 2: Open end Shielded: No Cable length: 10,000 mm Sheathing material: PUR
 	50130846	KD U-M8-3A-P1-150	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connection 2: Open end Shielded: No Cable length: 15,000 mm Sheathing material: PUR
 	50130847	KD U-M8-3A-P1-200	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connection 2: Open end Shielded: No Cable length: 20,000 mm Sheathing material: PUR
 	50130837	KD U-M8-3A-V1-020	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connection 2: Open end Shielded: No Cable length: 2,000 mm Sheathing material: PVC
 	50130883	KD U-M8-3A-V1-020-DP	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connector, LED: Yes, 1 Piece(s) Connection 2: Open end Shielded: No Cable length: 2,000 mm Sheathing material: PVC
 	50130838	KD U-M8-3A-V1-030	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connection 2: Open end Shielded: No Cable length: 3,000 mm Sheathing material: PVC

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	Part no.	Designation	Article	Description
	50130832	KD U-M8-3A-V1-050	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC
	50130884	KD U-M8-3A-V1-050-DP	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connector, LED: Yes, 1 Piece(s) Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC
	50130839	KD U-M8-3A-V1-100	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connection 2: Open end Shielded: No Cable length: 10,000 mm Sheathing material: PVC
	50130885	KD U-M8-3A-V1-100-DP	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connector, LED: Yes, 1 Piece(s) Connection 2: Open end Shielded: No Cable length: 10,000 mm Sheathing material: PVC
	50130840	KD U-M8-3A-V1-150	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connection 2: Open end Shielded: No Cable length: 15,000 mm Sheathing material: PVC
	50130841	KD U-M8-3A-V1-200	Connection cable	Connection 1: Connector, M8, Axial, Female, 3 -pin Connection 2: Open end Shielded: No Cable length: 20,000 mm Sheathing material: PVC

Notes

Observe intended use!

- This product is not a safety sensor and is not intended as personnel protection.
- The product may only be put into operation by competent persons.
- Only use the product in accordance with its intended use.