



LFC

FLEXIBLE AND STRAIGHTFORWARD POINT LEVEL MEASUREMENT -
THE ECONOMIC SOLUTION

Level sensors

SICK
Sensor Intelligence.

FLEXIBLE AND STRAIGHTFORWARD POINT LEVEL MEASUREMENT - THE ECONOMIC SOLUTION



Product description

The LFC capacitive level switch is a flexible, simple and, above all, cost-effective solution for point level measurement in fluid media. When measuring containers or for dry-run protection in piping, the LFC features particularly high performance thanks to its simple installation,

very easy cleaning, compact design and long service life. Due to the EHEDG- and 3-A-certified hygienic design and a process temperature of up to 135 °C, it is also perfectly suited for CIP and SIP applications. The LFC can easily display or blank foam and deposits.

At a glance

- Capacitive level switch based on electrical impedance spectroscopy
- Plug and play: preset to watery media
- Process temperature: -20 °C ... +100 °C (+135 °C for 1 h)
- Process pressure: -1 bar ... 25 bar
- Two digital PNP outputs
- Enclosure ratings IP66, IP67 and IP69
- Ideal for hygienic applications (easy to clean, EHEDG, 3A, EG1935/2004, FDA, CIP- and SIP-capable, hygienic adapter available)

Your benefits

- Maintenance-free point level measurement saves time and money
- Quick, easy and cost-effective installation
- Short cleaning cycles thanks to easy-to-clean sensor design
- Optimal hygienic design minimizes the contamination risk
- Easy plug and play sensor for quick commissioning
- Ideal price-performance ratio: High accuracy at an attractive price



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For more information, simply enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples, and much more.



Detailed technical data

Features

Medium	Fluids
Measurement	Switch
Process pressure	-1 bar ... 25 bar
Process temperature	-20 °C ... +100 °C, +135 °C for max. 1 h
RoHS certificate	✓
EHEDG approval	✓
3-A	✓

Performance

Accuracy of sensor element	Approx. 1 mm
Reproducibility	Approx. 1 mm
Resolution	Approx. 1 mm
Response time	Approx. 500 ms
Dielectricity constant	≥ 2

Mechanics

Wetted parts	Sensor tip PEEK, polished
Process connection	G ½ A PN, ISO0228-1, for hygienic thread adapter / 316L (RA < 0.76 µm) ½" NPT PN40, ASME B1.20.1 / 316L (depending on type)
Housing material	Stainless steel 1.4404, Plastic (Valox®)
Sealing material	NBR (male connector)

Electronics

Supply voltage	12 V DC ... 35 V DC ¹⁾
Protection class	III
Connection type	M12 round connector x 1, 4-pin
Power consumption	≤ 0.1 W
Contamination rating	4
Enclosure rating	IP66 / IP67 and IP69 (NEMA type 6P)
EMC	EN 61326-1
Overvoltage category	I
Load current	≤ 250 mA (Output permanently short-circuit proof)
Voltage drop	< 3 V
Switching voltage	< 34 V DC
Reverse current	< 10 µA

¹⁾ All connections are polarity protected. All outputs are overload and short-circuit protected.

Ambient data

Ambient operating temperature	-40 °C ... +70 °C
Ambient storage temperature	-40 °C ... +80 °C

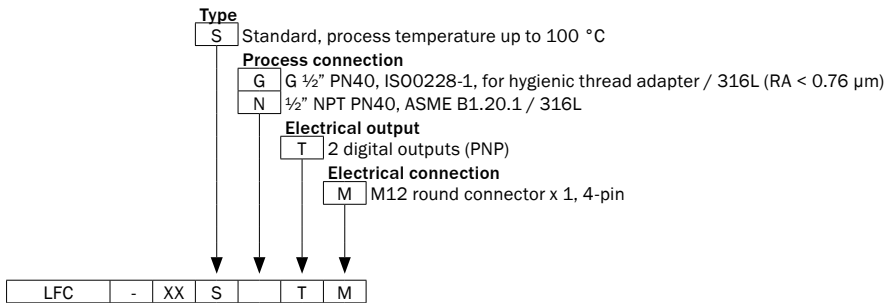
Ordering information

- **Enclosure rating:** IP66 / IP67 and IP69 (NEMA type 6P)
- **Process temperature:** -20 °C ... +100 °C, +135 °C for max. 1 h
- **Process pressure:** -1 bar ... 25 bar
- **Housing material:** Stainless steel 1.4404, Plastic (Valox®)
- **Electrical connection:** M12 round connector x 1, 4-pin

Process connection	Type	Part no.
G ½ A PN, ISO0228-1, for hygienic thread adapter / 316L (RA < 0.76 µm)	LCS-XXSGTM	6073811
½" NPT PN40, ASME B1.20.1 / 316L	LCS-XXSNTM	6073812

Type code

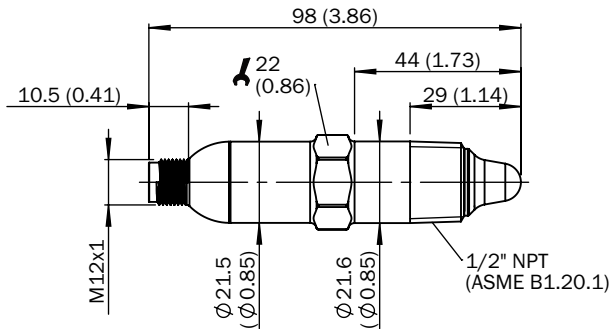
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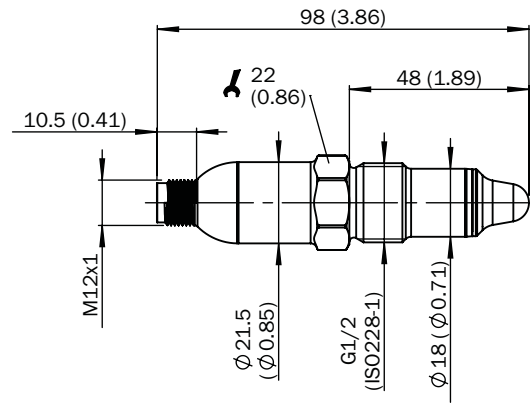
Not all variants of the type code can be combined!

Dimensional drawings (Dimensions in mm (inch))

½ NPT, unit: mm (inch), decimal separator: period



Process connection G ½, unit: mm (inch), decimal separator: period



Accessories

Mounting systems

Flanges

Flange plates









Brief description	Type	Part no.
Coupling DN25 PN40 (DIN11851) / 1.4435 (Ra < 0.76 µm)	BEF-HA-851D25-LFC1	5341535
Coupling DN40 PN40 (DIN11851) / 1.4435 (Ra < 0.76 µm)	BEF-HA-851D40-LFC1	5341536

Brief description	Type	Part no.
Coupling DN50 PN25 (DIN11851) / 1.4435 (Ra < 0.76 µm)	BEF-HA-851D50-LFC1	5341537
SMS tube fitting DN38 PN6 / 1.4435 (Ra < 0.76 µm)	BEF-HA-SMSD38-LFC1	5341538
Coupling DN50 PN25 (DIN11851) / 1.4435 (Ra < 0.76 µm)	BEF-HA-SMSD51-LFC1	5341539
Clamp 1-1½" DN25-38 PN40 (DIN32676, ISO2852) / 1.4435 (Ra < 0.76 µm)	BEF-HA-TCL15-LFC1	5341531
Clamp 2" DN40-51 PN40 (DIN32676, ISO2852) / 1.4435 (Ra < 0.76 µm)	BEF-HA-TCL20-LFC1	5341532
Varivent form F, DN25 (1"), D = 50 / 1.4435 (Ra < 0.76 µm)	BEF-HA-VARTYF-LFC1	5341534
Varivent form N, DN40 ... DN150 (1.5 ... 6"), D = 68 / 1.4435 (Ra < 0.76 µm)	BEF-HA-VARTYN-LFC1	5341533

Connection systems

Plug connectors and cables

Connecting cables

	Brief description	Length of cable	Type	Part no.
	Head A: female connector, M12, 4-pin, straight Head B: Flying leads Cable: PP, unshielded, 4.6 mm ¹⁾	2 m	DOL-1204-G02MRN	6058291
		5 m	DOL-1204-G05MRN	6058476
		10 m	DOL-1204-G10MRN	6058478
		15 m	DOL-1204-G15MRN	2092884
		25 m	DOL-1204-G25MRN	6058480
	Head A: female connector, M12, 4-pin, angled with LED Head B: Flying leads Cable: PP, unshielded, 4.6 mm ¹⁾	2 m	DOL-1204-L02MRN	6058482
		5 m	DOL-1204-L05MRN	6058483
		10 m	DOL-1204-L10MRN	6058484
		25 m	DOL-1204-L25MRN	6058485
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: PVC, unshielded, 5 mm ^{2) 3)}	2 m	DOL-1204-W02MNI	6052614
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: PP, unshielded, 4.6 mm ¹⁾	2 m	DOL-1204-W02MRN	6058474
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: PVC, unshielded, 5 mm ^{2) 3)}	5 m	DOL-1204-W05MNI	6052616
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: PP, unshielded, 4.6 mm ¹⁾	5 m	DOL-1204-W05MRN	6058477
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: PVC, unshielded, 5 mm ^{2) 3)}	10 m	DOL-1204-W10MNI	6052618
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: PP, unshielded, 4.6 mm ¹⁾	10 m	DOL-1204-W10MRN	6058479
		25 m	DOL-1204-W25MRN	6058481

¹⁾ Tested detergent: P3-topactive DES, P3-topactive 200, P3-topax 52, P3-topax 66 und P3-topax 91.

²⁾ Tested detergent: P3-topactive DES, P3-topax 19, P3-topax 56, P3-topax 66 and P3-topax 99; Insulating material group: Cat I.

³⁾ Insulating material group: Cat I.

	Brief description	Length of cable	Type	Part no.
	Head A: female connector, M12, 4-pin, straight Head B: Flying leads Cable: PUR, halogen-free, unshielded, 5.9 mm	2 m	DOL-1204G02MC75KM0	2079290
		5 m	DOL-1204G05MC75KM0	2079291
		10 m	DOL-1204G10MC75KM0	2079292
		20 m	DOL-1204G20MC75KM0	2089703
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: PUR, halogen-free, unshielded, 5.9 mm	2 m	DOL-1204W02MC75KM0	2079293
		5 m	DOL-1204W05MC75KM0	2079294
		10 m	DOL-1204W10MC75KM0	2079295
		20 m	DOL-1204W20MC75KM0	2089704
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 0.34 mm ² , 4.5 mm	2 m	YF2A14-020UB3X-LEAX	2095607
		5 m	YF2A14-050UB3X-LEAX	2095608
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 0.34 mm ² , 5 mm	5 m	YF2A14-050VB3X-LEAX	2096235
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 0.34 mm ² , 4.5 mm	10 m	YF2A14-100UB3X-LEAX	2095609
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 0.34 mm ² , 5 mm	10 m	YF2A14-100VB3X-LEAX	2096236
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 0.34 mm ² , 5 mm	2 m	YG2A14-020VB3X-LEAX	2095895
		5 m	YG2A14-050VB3X-LEAX	2095897
		10 m	YG2A14-100VB3X-LEAX	2095898
		15 m	YG2A14-150VB3X-LEAX	2096213
		20 m	YG2A14-200VB3X-LEAX	2096214

¹⁾ Tested detergent: P3-topactive DES, P3-topactive 200, P3-topax 52, P3-topax 66 und P3-topax 91.

²⁾ Tested detergent: P3-topactive DES, P3-topax 19, P3-topax 56, P3-topax 66 and P3-topax 99; Insulating material group: Cat I.

³⁾ Insulating material group: Cat I.

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