



LFP0500-G1NMB

LFP Inox



**THORNE &
DERRICK
INTERNATIONAL**

LEVEL SENSORS

Thorne & Derrick
+44 (0) 191 490 1547
www.heatingandprocess.com

SICK

Sensor Intelligence.

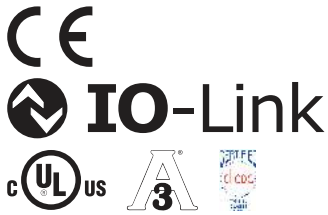


Ordering information

Type	Part no.
LFP0500-G1NMB	1052070

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

Illustration may differ



Detailed technical data

Features

Medium	Fluids
Measurement	Switch, Continuous
Design	Standard
Probe length	500 mm
Process pressure	-1 bar ... 16 bar
Process temperature	-20 °C ... +150 °C
GOST approval	✓
UL approval	✓
RoHS certificate	✓
IO-Link	✓
EHEDG approval	✓

Performance

Accuracy of sensor element	± 5 mm
Repeatability	≤ 2 mm
Resolution	< 2 mm
Response time	< 400 ms ¹⁾
Dielectricity constant	≥ 5 for mono probe ≥ 1.8 with coaxial tube
Conductivity	No limitation
Deactivated area at end of probe	10 mm ²⁾
MTTF	194.3 years (EN ISO 13849-1)

¹⁾ Dependent on measuring mode (high speed < 400 ms, high accuracy < 2,800 ms).

²⁾ With water under reference conditions.

Electronics

Supply voltage	12 V DC ... 30 V DC ¹⁾
Power consumption	≤ 75 mA at 24 V DC without output load
Initialization time	≤ 2 s
Protection class	III
Electrical connection	Round connector M12 x 1, 5-pin
Output load	4 mA ... 20 mA < 500 Ohm at U _v > 13,5 V, 4 mA ... 20 mA < 400 Ohm at U _v > 12 V, 0 V ... 10 V > 750 Ohm at U _v 14 ≥ V
Hysteresis	Min. 2 mm, free adjustable
Signal voltage HIGH	V _s - 2 V
Signal voltage LOW	≤ 2 V
Output current	< 100 mA
Inductive load	< 1 H
Capacitive load	100 nF
Enclosure rating	IP 67: EN 60529, IP 69K: EN 40050
Temperature drift	< 0.1 mm/K
Lower signal level	3.8 mA ... 4 mA
Upper signal level	20 mA ... 20.5 mA
EMC	EN 61326-2-3, 2014/30/EU

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

Mechanics

Wetted parts	316L (Ra ≤ 0,8 µm), PEEK
Process connection	G ¾ A
Housing material	303
Housing design	With viewing panel made from PMMA (acrylic glass)
Max.probe load	≤ 6 Nm

Ambient data

Ambient operating temperature	-20 °C ... +60 °C
Ambient storage temperature	-40 °C ... +80 °C

Classifications

ECI@ss 5.0	27371813
ECI@ss 5.1.4	27371813
ECI@ss 6.0	27371813
ECI@ss 6.2	27371813
ECI@ss 7.0	27371813
ECI@ss 8.0	27371813
ECI@ss 8.1	27371813
ECI@ss 9.0	27371813
ETIM 5.0	EC001447
ETIM 6.0	EC001447
UNSPSC 16.0901	41113710

Technical drawings of two probe models: Monoprobe and a probe with a coaxial tube.

Monoprobe:

- Overall length: 123 (4.84)
- Mounting bracket height: 22 (0.87)
- Probe length: L
- Measuring range: M
- Inactive area at process: 25 mm (0.79) (IA)
- Inactive area at probe: 10 mm (0.39) (IAE)
- Thread detail: 36 (1.42)
- Thread specification: G 3/4 A 3/4" NPT

Probe with coaxial tube:

- Overall length: 145 (5.71)
- Mounting bracket height: 77 (3.03)
- Probe length: L
- Measuring range: M
- Inactive area at process: 25 mm (0.79) (IA)
- Inactive area at probe: 10 mm (0.39) (IAE)
- Thread detail: 32 (1.26)
- Thread specification: G 3/4 A 3/4" NPT
- Coaxial tube diameter: $\varnothing 7$ ($\varnothing 0.28$)
- Coaxial tube outer diameter: $\varnothing 20$ ($\varnothing 0.78$)

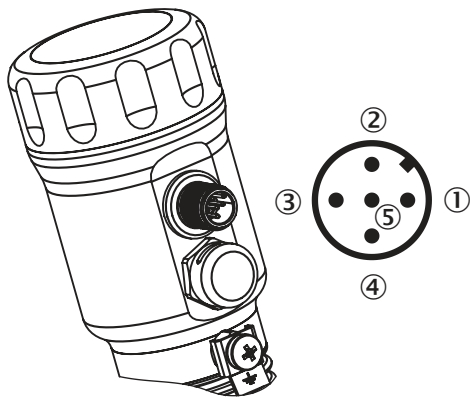
Probe Tip Detail:

- Outer diameter: $\varnothing 54$ ($\varnothing 2.13$)
- Height: 38 (1.50)
- Thread: M12x1

Legend:

- M: Measuring range
- L: Probe length
- IA: Inactive area at process 25 mm (0.79")
- IAE: Inactive area at probe 10 mm (0.39")

5-pole M12 Connector



- ① L⁺: Supply voltage, brown
- ② Q_A: Analog current-/voltage output, white
- ③ M: Ground, reference ground for current-/voltage output, blue
- ④ C/Q₁: Switching output 1, PNP/IO-Link-communication, black
- ⑤ C₂: Switching output 2, PNP/NPN, grey

Recommended accessories

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

	Brief description	Type	Part no.
Flanges			
	Hygienic process connection adapter, collar connector (DIN 11864-1) DN 25 Form A with grooved union nut	BEF-HA-641D25-LFP1	2058795
	Hygienic process connection adapter, collar connector (DIN 11864-2) DN 25 Form A	BEF-HA-642D25-LFP1	2058823
	Hygienic process connection adapter, collar clamp connector (DIN 11864-3) BKS DN 25 Form A	BEF-HA-643D25-LFP1	2058821
	Hygienic process connection adapter, conical connector (DIN 11851) DN 25 with grooved union nut	BEF-HA-851D25-LFP1	2058138
	Hygienic process connection adapter, conical connector (DIN 11851) DN 40 with grooved union nut, material 1.4404 (Ra ≤ 0.8 µm)	BEF-HA-851D40-LFP1	2058139
	Hygienic process connection adapter, conical connector (DIN 11851) DN 50 with grooved union nut	BEF-HA-851D50-LFP1	2058141
	Hygienic process connection adapter, conical connector (DIN 11851) DN 65 with grooved union nut	BEF-HA-851D65-LFP1	2063328
	Hygienic process connection adapter, Tri-Clamp 1" and 1 ½"	BEF-HA-TCL110-LFP1	2058808
	Hygienic process connection adapter, Tri-Clamp 2"	BEF-HA-TCL120-LFP1	2058824
	Hygienic process connection adapter, Varivent Connector Type N	BEF-HA-VAR-TYN-LFP1	2058822
	Welded flange/welded connector, process connection Tri-Clamp 1", Stainless steel 1.4404	BEF-FL-TCL110-LFV2	5321678
	Welded flange/welded connector, process connection Tri-Clamp 2", Stainless steel 1.4404	BEF-FL-TCL120-LFV2	5321679
	Welded flange hygienic G 3/4", Stainless steel 1.4404	BEF-HA-SWFL54-LFP1	2061268
Mounting brackets and mounting plates			
	Mounting bracket, mounting hardware included	BEF-FL-304LFP-HLDR	2077391
Terminal and alignment brackets			
	1 piece, Centering for bypass- and immersion tube installation with diameter 40 mm ... 100 mm, PTFE	BEF-FL-BYRD40-LFP1	2059612
Hardware			
	Weather protection cover for LFP Inox, material: 304	APR-WP-LFP001-0001	2069530

	Brief description	Type	Part no.
Spare parts			
	Cover closed for LFP Inox, material 1.4305	Cover closed	2067269
	Cover for LFP Inox with inspection window, material 1.4305 and PMMA	Cover with front screen	2067267

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



THORNE &
DERRICK
INTERNATIONAL

Thorne & Derrick
+44 (0) 191 490 1547
www.heatingandprocess.com

SICK
Sensor Intelligence.