

SpareCruX



LFP0500-N6NMC

LFP Inox

LEVEL SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

| Type | part no. |
|---------------|----------|
| LFP0500-N6NMC | 1080639 |

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

Detailed technical data

Features

| | |
|----------------------------|------------------------------|
| Medium | Fluids |
| Measurement | Switch, Continuous |
| Design | Standard amplifier |
| Probe type | Rod probe in hygienic design |
| Probe length | 500 mm |
| Process pressure | -1 bar ... 16 bar |
| Process temperature | -20 °C ... +150 °C |

Performance

| | |
|---|--|
| Accuracy of sensor element | ± 5 mm |
| Reproducibility | ≤ 2 mm |
| Resolution | 1 mm |
| Response time | 400 ms ¹⁾ |
| Dielectricity constant | ≥ 5 for rod probe ≥ 1.8 with coaxial tube |
| Conductivity | No limitation |
| Deactivated area at process connection | 25 mm ²⁾ |
| Deactivated area at end of probe | ≥ 10 mm ³⁾ |
| MTTF | 194.3 years (EN ISO 13849-1) |
| Display | ✓ |

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

²⁾ With parameterized container with water under reference conditions, otherwise 40 mm.

³⁾ With water under reference conditions.

Electronics

| | |
|--------------------------------|---|
| Communication interface | IO-Link |
| 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 |
| Connection type | M12 round connector x 1, 8-pin |
| Output signal | 1 x PNP + 3 x PNP/NPN + 4 mA ... 20 mA / 0 V ... 10 V |
| 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 | ≥ 2 mm ²⁾ |
| Output current | < 100 mA |
| Inductive load | < 1 H |
| Capacitive load | < 100 nF |
| Enclosure rating | IP67 (EN 60529) IP69 (EN 60529) |
| Temperature drift | < 0.1 mm/K |
| Lower signal level | 3.8 mA ... 4 mA, 0 V |
| Upper signal level | 20 mA ... 20.5 mA, 10.5 V |

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

²⁾ Freely adjustable.

Mechanics

| | |
|---------------------------|--|
| Wetted parts | Stainless steel 1.4404 / 316L PEEK |
| Surface roughness | Ra ≤ 0,8 μm |
| Process connection | ¾" NPT |
| Housing material | Stainless steel 1,4305 |
| Housing design | With viewing window made from PMMA (acrylic glass) |
| Max. probe load | ≤ 6 Nm |

Ambient data

| | |
|--------------------------------------|------------------------|
| Ambient operating temperature | -20 °C ... +60 °C |
| Ambient temperature, storage | -40 °C ... +80 °C |
| Outdoor use | Only with weather hood |

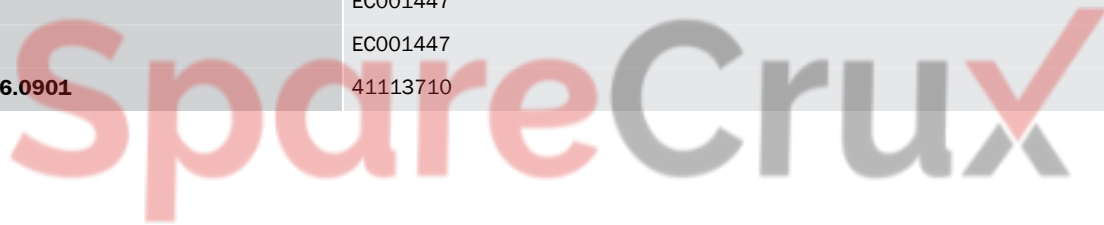
Certificates

| | |
|---|---|
| EU declaration of conformity | ✓ |
| UK declaration of conformity | ✓ |
| ACMA declaration of conformity | ✓ |
| Moroccan declaration of conformity | ✓ |
| China RoHS | ✓ |
| FDA certificate | ✓ |
| cULus certificate | ✓ |
| IO-Link certificate | ✓ |

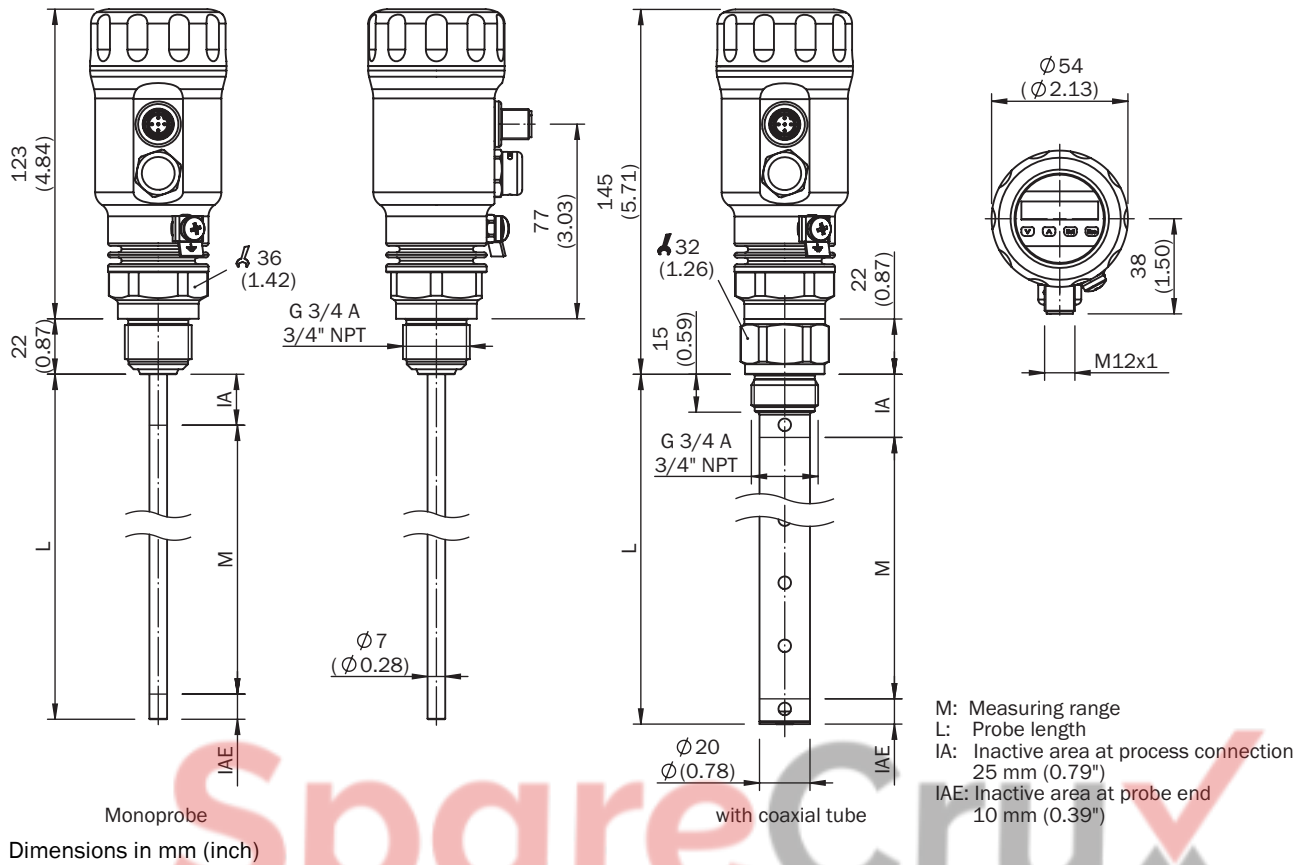
| | |
|--|---|
| Food contact material manufacturer declaration | ✓ |
| Information according to Art. 3 of Data Act (Regulation EU 2023/2854) | ✓ |

Classifications

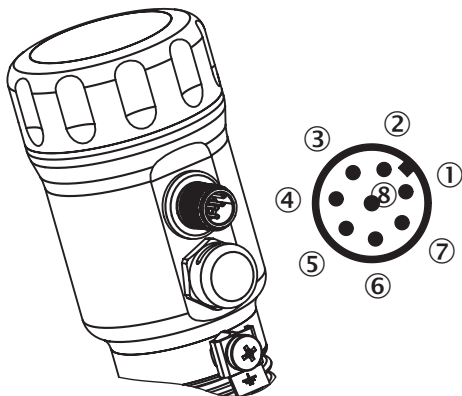
| | |
|-----------------------|----------|
| ECLASS 5.0 | 27200513 |
| ECLASS 5.1.4 | 27200513 |
| ECLASS 6.0 | 27200513 |
| ECLASS 6.2 | 27200513 |
| ECLASS 7.0 | 27200513 |
| ECLASS 8.0 | 27200513 |
| ECLASS 8.1 | 27200513 |
| ECLASS 9.0 | 27200513 |
| ECLASS 10.0 | 27200513 |
| ECLASS 11.0 | 27200513 |
| ECLASS 12.0 | 27200513 |
| ETIM 5.0 | EC001447 |
| ETIM 6.0 | EC001447 |
| ETIM 7.0 | EC001447 |
| ETIM 8.0 | EC001447 |
| UNSPSC 16.0901 | 41113710 |



Dimensional drawing



Connection type M12 round connector, 8-pin










The wire colors for 8-pin cables are not uniform. Always note the pin assignment of the sensor.




- ① L⁺: Supply voltage
- ② Q₂: Switching output 2, PNP/NPN
- ③ M: Ground, reference ground for current-/voltage output
- ④ C/Q₁: Switching output 1, PNP/IO-Link-communication
- ⑤ Q₃: Switching output 3, PNP/NPN
- ⑥ Q₄: Switching output 4, PNP/NPN
- ⑦ Q_A: Analog current-/voltage output
- ⑧ No function

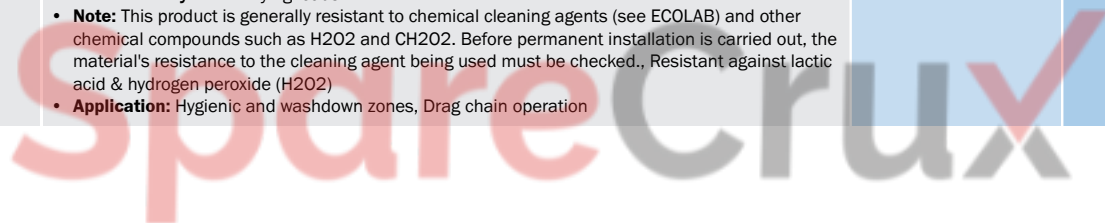
Recommended accessories

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

| | Brief description | Type | part no. |
|---|---|-------------------------|----------|
| device protection and care | | | |
|  | <ul style="list-style-type: none"> Description: Weather protection cover for LFP Inox, material: 304 | APR-WP-LFP001-0001 | 2069530 |
|  | <ul style="list-style-type: none"> Description: Cover for LFP Inox with inspection window, material 1.4305 and PMMA | Cover with front screen | 2067267 |
|  | <ul style="list-style-type: none"> Description: Cover closed, material 1.4305 | Cover closed | 2067269 |
| Mounting systems | | | |
|  | <ul style="list-style-type: none"> Description: Centering for bypass- and immersion tube installation with diameter 40 mm ... 100 mm Dimensions (W x H x L): 100 mm x 5 mm x 100 mm Material: PTFE Details: PTFE Packing unit: 1 piece Usable for: LFP Inox | BEF-FL-BYRD40-LFP1 | 2059612 |
|  | <ul style="list-style-type: none"> Description: Hygienic process connection adapter, Tri-Clamp 1" and 1 1/2", including acceptance test certificate 3.1; Ra ≤ 0.4 µm, hygienic in accordance with EHEDG in combination with T-seals or Tri-Clamp seals from Combifit International B.V. | BEF-HA-TCLI10-LFP2 | 2126242 |
|  | <ul style="list-style-type: none"> Description: Hygienic process connection adapter, Tri-Clamp 2"; including acceptance test certificate 3.1; Ra ≤ 0.4 µm, hygienic in accordance with EHEDG in combination with T-seals or Tri-Clamp seals from Combifit International B.V. | BEF-HA-TCLI20-LFP2 | 2126243 |
|  | <ul style="list-style-type: none"> Description: Weld-in flange, hygienic, G 3/4" including acceptance test certificate 3.1, Ra ≤ 0.4 µm Material: Stainless steel Details: Stainless steel 1.4404 | BEF-HA-SWFL54-LFP2 | 2122489 |

| | Brief description | Type | part no. |
|---|--|-----------------|----------|
| connectors and cables | | | |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 2 m, 5-wire, PP • Description: Sensor/actuator cable, unshielded • Connection systems: Flying leads • Note: This product is generally resistant to chemical cleaning agents (see ECOLAB) and other chemical compounds such as H2O2 and CH2O2. Before permanent installation is carried out, the material's resistance to the cleaning agent being used must be checked., Resistant against lactic acid & hydrogen peroxide (H2O2) • Application: Hygienic and washdown zones, Drag chain operation | DOL-1205-G02MRN | 6058494 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 5-wire, PP • Description: Sensor/actuator cable, unshielded • Connection systems: Flying leads • Note: This product is generally resistant to chemical cleaning agents (see ECOLAB) and other chemical compounds such as H2O2 and CH2O2. Before permanent installation is carried out, the material's resistance to the cleaning agent being used must be checked., Resistant against lactic acid & hydrogen peroxide (H2O2) • Application: Hygienic and washdown zones, Drag chain operation | DOL-1205-G05MRN | 6058495 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 10 m, 5-wire, PP • Description: Sensor/actuator cable, unshielded • Connection systems: Flying leads • Note: This product is generally resistant to chemical cleaning agents (see ECOLAB) and other chemical compounds such as H2O2 and CH2O2. Before permanent installation is carried out, the material's resistance to the cleaning agent being used must be checked., Resistant against lactic acid & hydrogen peroxide (H2O2) • Application: Hygienic and washdown zones, Drag chain operation | DOL-1205-G10MRN | 6058496 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 25 m, 5-wire, PVC • Description: Sensor/actuator cable, unshielded • Connection systems: Flying leads • Note: This product is generally resistant to chemical cleaning agents (see ECOLAB). Please do not use cleaning agents of any other Kind., Not resistant against lactic acid & hydrogen peroxide (H2O2) • Application: Hygienic and washdown zones | DOL-1205-G25MNI | 6052628 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 25 m, 5-wire, PP • Description: Sensor/actuator cable, unshielded • Connection systems: Flying leads • Note: This product is generally resistant to chemical cleaning agents (see ECOLAB) and other chemical compounds such as H2O2 and CH2O2. Before permanent installation is carried out, the material's resistance to the cleaning agent being used must be checked., Resistant against lactic acid & hydrogen peroxide (H2O2) • Application: Hygienic and washdown zones, Drag chain operation | DOL-1205-G25MRN | 6058497 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 2 m, 5-wire, PVC • Description: Sensor/actuator cable, unshielded • Connection systems: Flying leads • Note: This product is generally resistant to chemical cleaning agents (see ECOLAB). Please do not use cleaning agents of any other Kind., Not resistant against lactic acid & hydrogen peroxide (H2O2) • Application: Hygienic and washdown zones | DOL-1205-G02MNI | 6052625 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 5-wire, PVC • Description: Sensor/actuator cable, unshielded • Connection systems: Flying leads | DOL-1205-G05MNI | 6052626 |

| | Brief description | Type | part no. |
|---|--|--------------------|----------|
|  | <ul style="list-style-type: none"> Note: This product is generally resistant to chemical cleaning agents (see ECOLAB). Please do not use cleaning agents of any other Kind., Not resistant against lactic acid & hydrogen peroxide (H2O2) Application: Hygienic and washdown zones Connection type head A: Female connector, M12, 5-pin, straight Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 10 m, 5-wire, PVC Description: Sensor/actuator cable, unshielded Connection systems: Flying leads Note: This product is generally resistant to chemical cleaning agents (see ECOLAB). Please do not use cleaning agents of any other Kind., Not resistant against lactic acid & hydrogen peroxide (H2O2) Application: Hygienic and washdown zones | DOL-1205-G10MNI | 6052627 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, straight Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 20 m, 5-wire, PP Description: Sensor/actuator cable, unshielded Connection systems: Flying leads Note: This product is generally resistant to chemical cleaning agents (see ECOLAB) and other chemical compounds such as H2O2 and CH2O2. Before permanent installation is carried out, the material's resistance to the cleaning agent being used must be checked., Resistant against lactic acid & hydrogen peroxide (H2O2) Application: Hygienic and washdown zones, Drag chain operation | YF2AP5-200PA3XLEAX | 2146868 |
|  | <ul style="list-style-type: none"> Connection type head A: Female connector, M12, 5-pin, straight Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 40 m, 5-wire, PP Description: Sensor/actuator cable, unshielded Connection systems: Flying leads Note: This product is generally resistant to chemical cleaning agents (see ECOLAB) and other chemical compounds such as H2O2 and CH2O2. Before permanent installation is carried out, the material's resistance to the cleaning agent being used must be checked., Resistant against lactic acid & hydrogen peroxide (H2O2) Application: Hygienic and washdown zones, Drag chain operation | YF2AP5-400PA3XLEAX | 2146869 |



SICK AT A GLANCE

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