



Proximity switch, inductive, 1 N/C, $S_n=10\text{mm}$, 4L, 6-48VDC, NPN, PNP, M12, metal

Part no. E59-M12C110C02-D2
Catalog No. 136210
Alternate Catalog No. E59-M12C110C02-D2

Delivery program

| | | | |
|---------------------------|-------|----|----------------------|
| Basic function | | | Inductive Sensors |
| Product range | | | iProx Series |
| Connection | | | 3-wire |
| Design (outer dimensions) | | mm | M12 x 1 |
| Rated operational voltage | U_e | | 6 - 48 V DC |
| Rated switching distance | S_n | mm | 10 |
| Type of mounting | | | Non-flush |
| Switching type | | | NPN PNP |
| For connection of: | | | 2 m connection cable |
| Contacts | | | |
| N/C = Normally closed | | | 1 NC |
| Material | | | Stainless steel |
| Degree of Protection | | | IP67, IP69 |

Technical data

General

| | | | |
|-----------------------------|--|---|----------------------------|
| Standards | | | IEC/EN 60947-5-2 |
| Ambient temperature | | | -40 - +70 |
| Mechanical shock resistance | | g | 30 Shock duration 11 ms |
| Degree of Protection | | | IP67, IP69 |

Characteristics

| | | | |
|--------------------------------------------------------------------------------|-------|-----|-------------------------------------------------------------------------------------------------------------|
| Rated switching distance | | | |
| Rated switching distance | S_n | mm | 10 |
| Repetition accuracy of S_n | | % | 3 |
| Temperature drift of S_n | | % | 10 |
| Switching hysteresis of S_n | | % | 15 |
| Rated operational voltage | U_e | | 6 - 48 V DC |
| Maximum load current | I_e | mA | < 300 |
| Operating current in the switched state at 24 V DC | I_b | mA | 15 |
| Voltage drop at I_e | U_d | V | 2.5 |
| Switching Frequency | | Hz | 300 |
| Min. load current | I_e | mA | 1 |
| Residual current through the load in the blocked state at 230 V AC and 24 V DC | I_r | mA | 0.15 |
| Switching state display | | LED | Red |
| Operating voltage display | | LED | Green |
| Protective functions | | | Short-circuit protective device Protection against polarity reversal Protection against wire breakage |
| Connection | | | 3-wire |
| Contacts | | | |
| N/C = Normally closed | | | 1 NC |
| Style | | | |
| Design (outer dimensions) | | mm | M12 x 1 |
| For connection of: | | | 2 m connection cable |

| | | |
|----------|--|-----------------|
| Material | | Stainless steel |
|----------|--|-----------------|

Design verification as per IEC/EN 61439

| | | |
|----------------------------------------|----|-----|
| Technical data for design verification | | |
| Operating ambient temperature min. | °C | -40 |
| Operating ambient temperature max. | °C | 70 |

Technical data ETIM 7.0

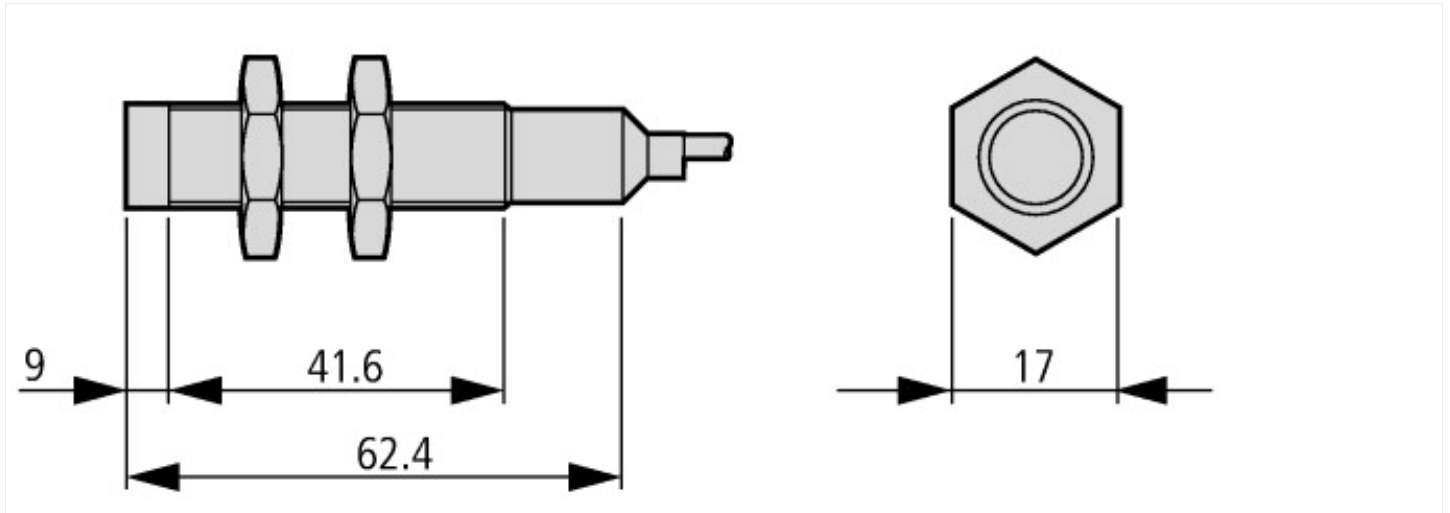
| | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------------|
| Sensors (EG000026) / Inductive proximity switch (EC002714) | | |
| Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Proximity switch / Inductive proximity switch (ecl@ss10.0.1-27-27-01-01 [AGZ376015]) | | |
| Width sensor | mm | 0 |
| Height of sensor | mm | 0 |
| Length of sensor | mm | 62 |
| Diameter sensor | mm | 12 |
| Mechanical mounting condition for sensor | | Not flat |
| Switching distance | mm | 10 |
| Suitable for safety functions | | No |
| Type of switch function | | Breaker contact |
| Type of switching output | | PNP/NPN |
| Type of electric connection | | Cable |
| Number of semiconductor outputs with signalling function | | 1 |
| Number of contact energized outputs with signalling function | | 0 |
| Number of protected semiconductor outputs | | 0 |
| Number of protected contact energized outputs | | 0 |
| Type of actuation | | Metallic Target |
| Type of interface | | None |
| Type of interface for safety communication | | None |
| Construction type housing | | Cylinder, screw-thread |
| Coating housing | | Other |
| Cascadable | | No |
| Category according to EN 954-1 | | B |
| SIL according to IEC 61508 | | None |
| Performance level acc. EN ISO 13849-1 | | None |
| Max. output current at protected output | mA | 0 |
| Supply voltage | V | 6 - 48 |
| Rated control supply voltage Us at AC 50HZ | V | 0 - 0 |
| Rated control supply voltage Us at AC 60HZ | V | 0 - 0 |
| Rated control supply voltage Us at DC | V | 6 - 48 |
| Voltage type | | DC |
| Switching frequency | Hz | 300 |
| With monitoring function downstream switching devices | | No |
| Material housing | | Metal |
| Compression-resistant | | No |
| Explosion safety category for gas | | None |
| Explosion safety category for dust | | None |
| Interference resistance to magnetic fields | | |

Approvals

| | | |
|-----------------------------|--|----------------------------------------------------|
| Product Standards | | UL 508; CSA-C22.2 No. 14; IEC60947-5-2; CE marking |
| UL File No. | | E166051 |
| UL Category Control No. | | NRKH, NRKH7 |
| CSA File No. | | UL report applies to both Canada and US |
| CSA Class No. | | - |
| North America Certification | | UL listed, certified by UL for use in Canada |

| | |
|----------------------|-----------------------------------------------------|
| Max. Voltage Rating | 48 V DC |
| Degree of Protection | IEC: IP67, IP69K; UL/CSA Type: 4, 4x, 6, 6P, 12, 13 |

Dimensions



Assets (links)

Declaration of CE Conformity

00003158

Instruction Leaflets

IL05301004Z2018_05

Additional product information (links)

IL05301004Z iProx Series Inductive Sensors

IL05301004Z iProx Series Inductive Sensors ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05301004Z2018_05.pdf