## **DATASHEET - E57G-12UPN4-C2**



Proximity switch, E57G General Purpose Serie, 1 N/O, 3-wire, 10 - 30 V DC, M12 x 1 mm, Sn= 4 mm, Non-flush, PNP, Stainless steel, 2 m connection cable



Part no. E57G-12UPN4-C2 Catalog No. E57G-32UPN4-C2

Alternate Catalog E57G-12UPN4-C2

No.

## **Delivery program**

| Delivery program          |                |    |                             |
|---------------------------|----------------|----|-----------------------------|
| Basic function            |                |    | Inductive Sensors           |
| Product range             |                |    | E57G general purpose series |
| Connection                |                |    | 3-wire                      |
| Design (outer dimensions) |                | mm | M12 x 1                     |
| Rated operational voltage | U <sub>e</sub> |    | 10 - 30 V DC                |
| Rated switching distance  | $S_n$          | mm | 4                           |
| Type of mounting          |                |    | Non-flush                   |
| Switching type            |                |    | PNP                         |
| For connection of:        |                |    | 2 m connection cable        |
| Contacts                  |                |    |                             |
| N/O = Normally open       |                |    | 1 N/0                       |
| Material                  |                |    | Stainless steel             |
| Degree of Protection      |                |    | IP67                        |
|                           |                |    |                             |

## **Technical data**

#### General

| Standards                   |   | IEC/EN 60947-5-2           |
|-----------------------------|---|----------------------------|
| Ambient temperature         |   | -25 - +70                  |
| Mechanical shock resistance | g | 30<br>Shock duration 11 ms |
| Degree of Protection        |   | IP67                       |
| Vibration                   |   | Amplitude 1 mm: 10 - 55 Hz |
| Characteristics             |   |                            |
| Rated switching distance    |   |                            |
|                             |   |                            |

| 9  |                |     | 1 T T T T T T T T T T T T T T T T T T T |
|--|----------------|-----|---|
| Vibration  |                |     | Amplitude 1 mm: 10 - 55 Hz              |
| Characteristics                                    |                |     |   |
| Rated switching distance                           |                |     |   |
| Rated switching distance                           | $S_n$          | mm  | 4                                       |
| Repetition accuracy of $S_n$                       |                | %   | 3                                       |
| Temperature drift of S <sub>n</sub>                |                | %   | 10                                      |
| Switching hysteresis of $S_n$                      |                | %   | 20                                      |
| Range  |                | mm  | 4                                       |
| Rated operational voltage                          | U <sub>e</sub> |     | 10 - 30 V DC                            |
| Maximum load current                               | I <sub>e</sub> | mA  | < 100                                   |
| Operating current in the switched state at 24 V DC | I <sub>b</sub> | mA  | 10                                      |
| Voltage drop at I <sub>e</sub>                     | $U_{d}$        | V   | 2.5                                     |
| Switching Frequency                                |                | Hz  | 2000                                    |
| Response time                                      |                | ms  | 200                                     |
| Min. load current                                  | I <sub>e</sub> | mA  | 1                                       |
| Switching state display                            |                | LED | Yellow                                  |
| Protective functions                               |                |     | Short-circuit protective device         |
| Connection   |                |     | 3-wire                                  |
| Contacts   |                |     |   |
| N/0 = Normally open                                |                |     | 1 N/O                                   |
| 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 | -25 |
| 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 | 64.1                   |
| Diameter sensor   |  | mm | 12                     |
| Mechanical mounting condition for sensor  |  |    | Not flat               |
| Switching distance  |  | mm | 4                      |
| Suitable for safety functions   |  |    | No                     |
| Type of switch function   |  |    | Normally open contact  |
| Type of switching output  |  |    | PNP                    |
| 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  |  |    | В                      |
| 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  | 10 - 30                |
| 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  | 10 - 30                |
| Voltage type  |  |    | DC                     |
| Switching frequency   |  | Hz | 2000                   |
| 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                   |
|   |  |    |                        |

# **Approvals**

Interference resistance to magnetic fields

| Product Standards           | UL 508/CSA-C22.2 No. 14                      |
|-----------------------------|--|
| UL File No.                 | E166051                                      |
| UL Category Control No.     | NRKH, NRKH7                                  |
| North America Certification | UL listed, certified by UL for use in Canada |
| Degree of Protection        | UL Type 1                                    |

# **Additional product information (links)**

IL053003EN Inductive sensors: E57 performance (short body), E57G General Purpose Series Inductive Proximity Sensors

IL053003EN Inductive sensors: E57 performance (short body), E57G General Purpose Series Inductive Proximity Sensors ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/IL053003EN2018\_10.pdf