

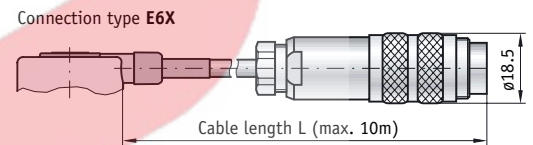
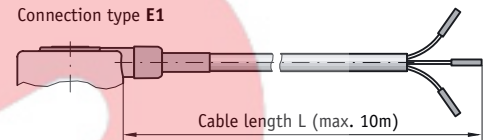
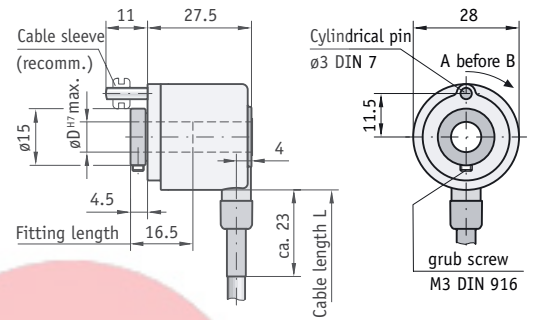
Incremental encoders IH28M

Miniature rotary encoders with high precision: The encapsulated encoder IH28M can take a lot with regard to vibration, dirt, and humidity and convince with their particularly compact design with through hollow shaft.



Features:

- up to 1000 pulses/revolution
- PP, OP, LD5, LD24 output circuit
- hollow shaft up to 8 mm diam./stainless steel
- IP54 or higher type of protection
- 28 mm flange diameter



Pin-outs

| E6X PIN | E1 Core colours | PP Signal |
|------------|--------------------|--------------|
| 1 | white | B |
| 2 | brown | +UB |
| 3 | green | 0/I |
| 4 | yellow | A |
| 5 | grey | GND |
| 6 | | |
| 7 | | |

| E6X PIN | E1 Core colours | OP/LD24/LD5 Signal |
|------------|--------------------|-----------------------|
| A | blue | /B |
| B | | |
| C | green | 0 |
| D | red | /0 |
| E | yellow | A |
| F | pink | /A |
| G | | |
| H | white | B |
| I | | |
| K | grey | GND |
| L | | |
| M | brown | +UB |

| Feature | | Technical data | Additional information |
|----------------------------------|-------------------------|--|---|
| Type of protection | | IP54 | |
| Max. rotational speed | | 3000 min ⁻¹ | |
| Shaft moment of inertia | | ~0.24 x 10 ⁻⁶ kgm ² | |
| Starting torque (+20 °C) | | ≤0.1 Ncm | |
| Load capacity of shaft | | radial 30 N, axial 15 N | only IV28M |
| Weight | | ~0.1 kg | |
| Working temperature | | -20 °C ... +70 °C | storage temperature -20 °C ... +80 °C |
| Cable sheath | | PUR | |
| Shock resistance | | 200 g/6 ms | acc. to DIN-IEC 68-2-27 |
| Vibration resistance | | 10 g/50 Hz | acc. to DIN-IEC 68-2-6 |
| Operating voltage | | 10 ... 30 V DC (PP, OP, LD24) 5 V DC ± 5% (LD5) | |
| Power cons. without load (typ.) | | <25 mA | ABO version |
| Perm. load/channel (max.) | | ±30 mA | short-time up to 100 mA, t < 5 s |
| Pulse frequency (max.) | | 200 kHz | |
| Phase position | | 90° ± 15° | |
| Signal level high (min.) | | 29.2 V DC (not with LD5, LD24) | Ub = 30 V DC, I oh = -30 mA |
| Signal level low (max.) | | 0.5 V DC (not with LD5, LD24) | Ub = 30 V DC, I ol = 30 mA |
| Polarity protection on UB | | yes (PP, OP, LD24), no (LD5) | |
| Housing | | aluminium/plastic | |
| Shaft | | stainless steel | |
| Test mark | | CE | acc. to EN 61000-6-2, EN 61000-6-4 |
| Ordering data | | | |
| Output signals (see appendix) | ABX ABO ABI | | standard |
| Pulses/revolution | ... | 50 ... 1000 in 50-increments | |
| Type of connection | E1 E6X | cable sleeve with flying leads connector | |
| Cable length [m] | 1.0 0.3 | from 1.0 ... 10.0 m in steps of 1.0 m (E1) only for E6X | standard |
| Output circuit (see appendix) | PP OP LD5 LD24 | push-pull push-pull, with inverted signals line driver, 5 V DC encoder supply line driver, 24 V DC encoder supply | standard RS422 A spec. RS422 A spec. |
| Shaft diameter | ... 5 x 10 | max. 8 mm | standard , hollow shaft standard , solid shaft |
| Accessories in the appendix | | | |

Your order: - IH28M - - - - - -