



Wire draw encoders Compact

PKS09-ATBM0520



Model Name > **PKS09-ATBM0520**
Part No. > **1035243**



Illustration may differ

At a glance

- Incremental encoders
- Compact housing (90 x 90 x 90 mm)
- Encoder integrated into housing
- Measuring lengths from 2 to 5 m
- High resolution
- TTL interface

Your benefits

- Industrial designed encoder integrated in an aluminum housing makes it less susceptible to external damage, saving time and reducing maintenance costs
- Extremely precise measurements by eliminating the coupling between the encoder and the mechanism
- Space-saving installation, since the encoder is directly integrated into the wire draw mechanics.
- Very precise measurements thanks to high resolution



Performance

| | |
|----------------------|-------------------|
| Measurement range: | 0 m ... 5 m |
| Linearity: | ≤ ± 0.7 mm |
| Piston speed: | 3.5 m/s |
| Repeat accuracy typ: | 3 measuring steps |

Mechanical data

| | |
|-------------------------------|---|
| Mass: | 1.5 kg |
| Measuring wire diameter: | 0.6 mm |
| Measuring wire material: | Highly flexible stranded steel (PA 12 sheathed) |
| Housing material: | Aluminum |
| Spring return force: | 4 N ... 6 N ¹⁾ |
| Life of wire draw mechanism:: | 800,000 cycles ^{2) 3)} |
| Wire acceleration: | ≤ 20 m/s ² |

¹⁾ These values were measured at an ambient temperature of 25 °C. There may be variations at other temperatures. ^{2) 3)} At high operating speeds over great lengths, this figure can decrease; at slow operating speeds over short lengths, it can increase.

Electrical data

| | |
|--|------------------------------------|
| Operating current: | 60 mA (without load) |
| Reference signal: | 1/765 measuring steps |
| Maximum load current: | 20 mA |
| Initialization time: | 40 ms ¹⁾ |
| Supply voltage: | 4.5 V ... 5.5 V |
| MTTFd: mean time to dangerous failure: | 400 a (EN ISO 13849) ²⁾ |

¹⁾ Valid positional data can be read once this time has elapsed. ²⁾ This product is a standard product and does not constitute a safety component as defined in the Machinery Directive.

Calculation based on nominal load of components, average ambient

temperature 40°C, frequency of use 8760 h/a. All

electronic failures are considered hazardous. For more information, see document no. 8015532.

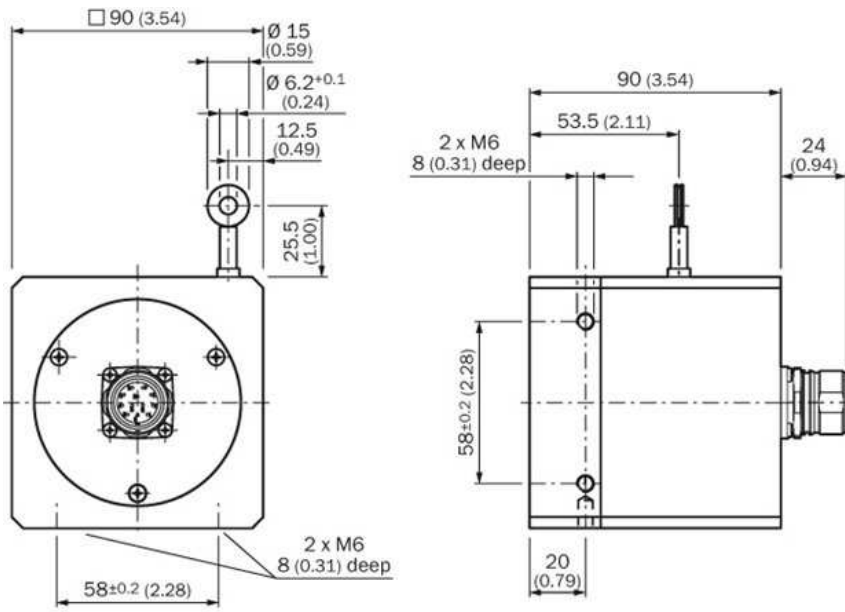
Interfaces

| | |
|-----------------------|-------------------------------|
| Electrical interface: | 4.5 V ... 5.5 V, TTL/RS422 |
| Connection type: | Connector M23, 12-pin, radial |
| Encoder: | Incremental encoders |

Ambient data

| | |
|--------------------------------------|---|
| EMC: | (according to EN 61000-6-2 and EN 61000-6-3) |
| Enclosure rating encoder: | IP 52 (according to IEC 60529), Note required mounting position |
| Resistance to shocks: | 20 g, 6 ms (according to EN 60068-2-27) |
| Resistance to vibration: | 10 g, 10 Hz ... 2,000 Hz (according to EN 60068-2-6) |
| Storage temperature range: | -20 °C ... +80 °C |
| Relative humidity/Condensation: | 90 % (Condensation not permitted) |
| Working temperature range (encoder): | -10 °C ... +70 °C |

Dimensional drawing



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