



Wire draw encoders Compact

XKS09-HTBM0227



Model Name > [XKS09-HTBM0227](#)
Part No. > [1035436](#)

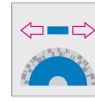


Illustration may differ

At a glance

- Absolute encoder
- Compact housing (90 x 90 x 90 mm)
- Encoder integrated into housing
- Measuring lengths from 2 to 5 m
- High resolution
- Interfaces: HIPERFACE®, PROFIBUS, CANopen and DeviceNET (with adapter)

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 the high resolution
- No reference run necessary thanks to the absolute measuring principle



Performance

Measurement range:	0 m ... 2 m
Length of period:	1.195 mm
Linearity:	≤ ± 0.7 mm
Non-linearity:	± 0.1 mm
Piston speed:	3.5 m/s
Repeat accuracy typ:	≤ 0.15 °

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:	5 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)
Output frequency for sine/cosine signals:	0 kHz ... 65 kHz
Available memory area:	1,792 Byte
Supply voltage:	7 V ... 12 V
Code type:	Binary
Code sequence:	Rising at wire pull-out
MTTFd: mean time to dangerous failure:	250 a (EN ISO 13849) ¹⁾
EEProm:	2048 Eeprom

¹⁾ 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.

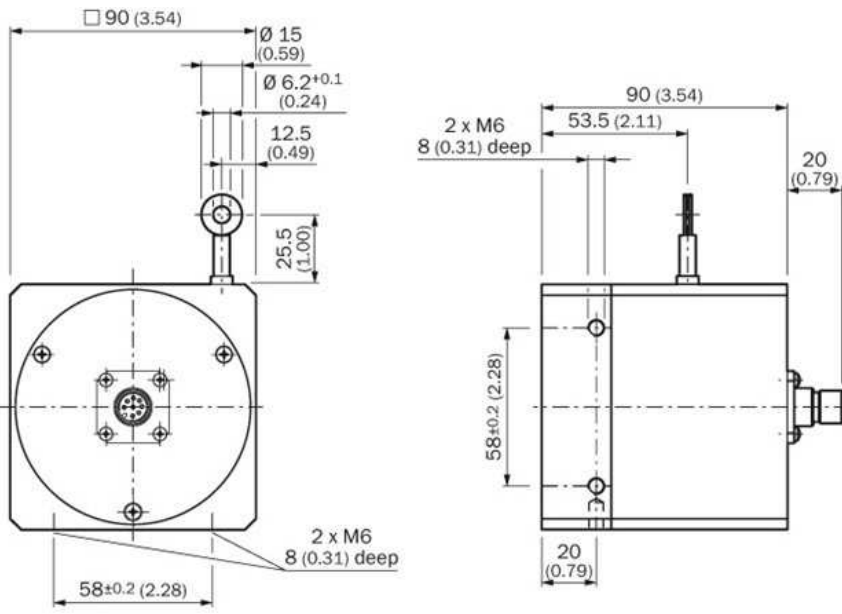
Interfaces

Electrical interface:	7 V ... 12 V, HIPERFACE®
Connection type:	Male connector M12, 8-pin, radial
Interface signals:	Parameter channel RS-485: digital, Process data channel SIN, REFSIN, COS, REFCOS: analog, differential
Number of sine/cosine periods per revolution:	128
Encoder:	Absolute 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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