

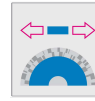


## Wire draw encoders Compact

BKS09-ATBM0520



**Model Name** > **BKS09-ATBM0520**  
**Part No.** > **1035241**



*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
- SSI 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
- No reference run necessary thanks to the absolute measuring principle



**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 <sup>1)</sup>
Life of wire draw mechanism::	800,000 cycles <sup>2) 3)</sup>
Wire acceleration:	≤ 20 m/s <sup>2</sup>

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

## Electrical data

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Initialization time:	200 ms <sup>1)</sup>
Position forming time:	0.1 ms
Supply voltage:	12 V ... 30 V
Code type:	24 bit/Gray
Code sequence:	Rising at wire pull-out
MTTFd: mean time to dangerous failure:	150 a (EN ISO 13849) <sup>2)</sup>

<sup>1)</sup> Valid positional data can be read once this time has elapsed. <sup>2)</sup> 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

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Electrical interface:	SSI
Connection type:	Connector M23, 12-pin, radial
Clock frequency:	1 MHz <sup>1)</sup>
Interface signals:	Clock +, Clock -, Data +, Data-
Encoder:	Absolute encoders

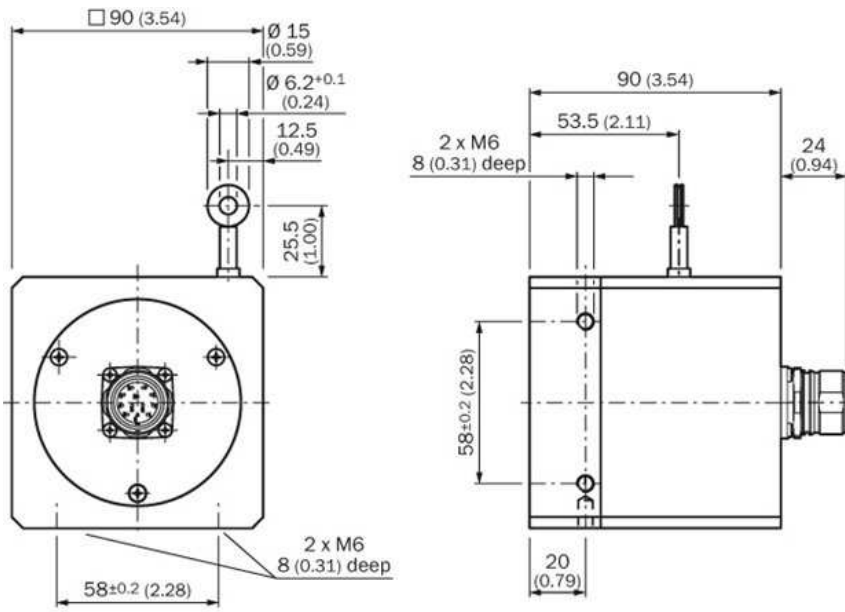
<sup>1)</sup>

## Ambient data

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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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