

# BKS09-ATBM0220

Compact

WIRE DRAW ENCODERS

**SICK**  
Sensor Intelligence.

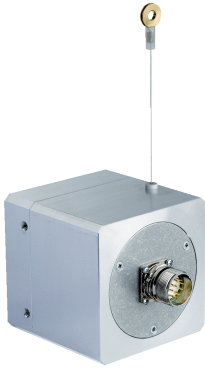


Illustration may differ



### Ordering information

Type	Part no.
BKS09-ATBM0220	1035240

Other models and accessories → [www.sick.com/Compact](http://www.sick.com/Compact)

### Detailed technical data

#### Performance

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<b>Measurement range</b>	0 m ... 2 m
<b>Encoder</b>	Absolute encoders
<b>Number of steps per revolution</b>	3,060
<b>Repeatability</b>	≤ 0.15 mm
<b>Linearity</b>	≤ ± 0.7 mm

#### Interfaces

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<b>Communication interface</b>	SSI
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#### Electrical data

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<b>Connection type</b>	Male connector, M23, 12-pin, radial
<b>Supply voltage</b>	12 V ... 30 V
<b>MTTFd: mean time to dangerous failure</b>	150 years (EN ISO 13849) <sup>1)</sup>

<sup>1)</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.

#### Mechanical data

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<b>Weight</b>	1.5 kg
<b>Measuring wire material</b>	Highly flexible stranded steel (PA 12 sheathed)
<b>Housing material, wire draw mechanism</b>	Aluminum
<b>Spring return force</b>	5 N ... 6 N <sup>1)</sup>

<sup>1)</sup> These values were measured at an ambient temperature of 25 °C. There may be variations at other temperatures.

<sup>2)</sup> A cycle consists of the wire being pulled out and drawn in.

<sup>3)</sup> The service life depends on the type of load. This is influenced by environmental conditions, the installation location, the measuring range in use, the traversing speed, and acceleration.

<b>Length of wire pulled out per revolution</b>	153 mm
<b>Life of wire draw mechanism</b>	Typ. 800,000 cycles <sup>2) 3)</sup>
<b>Wire acceleration</b>	≤ 20 m/s <sup>2</sup>
<b>Operating speed</b>	3.5 m/s

<sup>1)</sup> These values were measured at an ambient temperature of 25 °C. There may be variations at other temperatures.

<sup>2)</sup> A cycle consists of the wire being pulled out and drawn in.

<sup>3)</sup> The service life depends on the type of load. This is influenced by environmental conditions, the installation location, the measuring range in use, the traversing speed, and acceleration.

## Ambient data

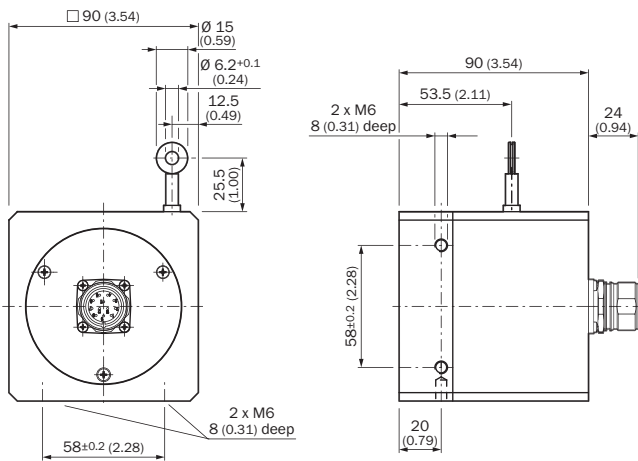
BKS

<b>EMC</b>	According to EN 61000-6-2 and EN 61000-6-3
<b>Enclosure rating</b>	IP52, Note required mounting position (IEC 60529)
<b>Operating temperature range</b>	-10 °C ... +70 °C

## Classifications

<b>eCl@ss 5.0</b>	27270590
<b>eCl@ss 5.1.4</b>	27270590
<b>eCl@ss 6.0</b>	27270590
<b>eCl@ss 6.2</b>	27270590
<b>eCl@ss 7.0</b>	27270590
<b>eCl@ss 8.0</b>	27270590
<b>eCl@ss 8.1</b>	27270590
<b>eCl@ss 9.0</b>	27270590
<b>eCl@ss 10.0</b>	27270613
<b>eCl@ss 11.0</b>	27270503
<b>eCl@ss 12.0</b>	27270503
<b>ETIM 5.0</b>	EC001486
<b>ETIM 6.0</b>	EC001486
<b>ETIM 7.0</b>	EC001486
<b>ETIM 8.0</b>	EC001486
<b>UNSPSC 16.0901</b>	41112113






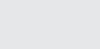

### Dimensional drawing (Dimensions in mm (inch))



### Recommended accessories

Other models and accessories → [www.sick.com/Compact](http://www.sick.com/Compact)

	Brief description	Type	Part no.
<b>Plug connectors and cables</b>			
	Head A: cable Head B: Flying leads Cable: SSI, Incremental, PUR, shielded	LTG-2411-MW	6027530
	Head A: cable Head B: Flying leads Cable: SSI, Incremental, PUR, halogen-free, shielded	LTG-2512-MW	6027531
	Head A: cable Head B: Flying leads Cable: SSI, TTL, HTL, Incremental, PUR, halogen-free, shielded	LTG-2612-MW	6028516
	Head A: female connector, M23, 12-pin, straight Head B: Flying leads Cable: SSI, PUR, shielded, 2 m	DOL-2312-G02MLA5	2030680
	Head A: female connector, M23, 12-pin, straight Head B: Flying leads Cable: SSI, RS-422, TTL, HTL, PUR, halogen-free, shielded, 3 m	DOL-2312-G03MMA1	2029201
	Head A: female connector, M23, 12-pin, straight Head B: Flying leads Cable: SSI, RS-422, TTL, HTL, PUR, halogen-free, shielded, 5 m	DOL-2312-G05MMA1	2029202
	Head A: female connector, M23, 12-pin, straight Head B: Flying leads Cable: SSI, PUR, shielded, 7 m	DOL-2312-G07MLA5	2030683
	Head A: female connector, M23, 12-pin, straight Head B: Flying leads Cable: SSI, PUR, shielded, 10 m	DOL-2312-G10MLA5	2030686
	Head A: female connector, M23, 12-pin, straight Head B: Flying leads Cable: SSI, RS-422, TTL, HTL, PUR, halogen-free, shielded, 10 m	DOL-2312-G10MMA1	2029203

	Brief description	Type	Part no.
	Head A: female connector, M23, 12-pin, straight Head B: Flying leads Cable: SSI, PUR, shielded, 15 m	DOL-2312-G15MLA5	2030690
	Head A: female connector, M23, 12-pin, straight Head B: Flying leads Cable: SSI, RS-422, TTL, HTL, PUR, halogen-free, shielded, 1.5 m	DOL-2312-G1M5MA1	2029200
	Head A: female connector, M23, 12-pin, straight Head B: Flying leads Cable: SSI, PUR, shielded, 20 m	DOL-2312-G20MLA5	2030693
	Head A: female connector, M23, 12-pin, straight Head B: Flying leads Cable: SSI, RS-422, PUR, halogen-free, shielded, 20 m	DOL-2312-G20MMA1	2029204
	Head A: female connector, M23, 12-pin, straight Head B: Flying leads Cable: SSI, PUR, shielded, 25 m	DOL-2312-G25MLA5	2030697
	Head A: female connector, M23, 12-pin, straight Head B: Flying leads Cable: SSI, PUR, shielded, 30 m	DOL-2312-G30MLA5	2030700
	Head A: female connector, M23, 12-pin, straight Head B: Flying leads Cable: SSI, RS-422, PUR, halogen-free, shielded, 30 m	DOL-2312-G30MMA1	2029205

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

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