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Product data sheet



BCG19-K1EM10PP

EcoLine

WIRE DRAW ENCODERS

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Sensor Intelligence.

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BCG19-K1EM10PP | EcoLine

WIRE DRAW ENCODERS



Illustration may differ

Ordering information

Type	Part no.
BCG19-K1EM10PP	6048294

Included in delivery: ACM60B-S1KE13x06 (1), MRA-G190-110D3 (1)

Product is supplied fully assembled. See individual components for further technical data

Other models and accessories → www.sick.com/EcoLine

Detailed technical data

Performance

BCG

Measurement range	0 m ... 10 m
Encoder	Absolute encoders
Resolution (wire draw + encoder)	0.05 mm [1) 2)]
Repeatability	≤ 0.2 mm [3)]
Linearity	≤ ± 2 mm [3)]
Hysteresis	≤ 0.4 mm [3)]

[1)] The values shown have been rounded.

[2)] Example calculation based on the BCG08 with PROFINET: 230 mm (wire draw length per revolution - see Mechanical data): 262,144 (number of steps per revolution) = 0.001 mm (resolution of wire draw + encoder combination).

[3)] Value applies to wire draw mechanism.

Interfaces

BCG

Communication interface	Analog / Current / 4...20 mA

Electrical data

BCG

Connection type	Male connector, M12, 5-pin, radial
Supply voltage	18 V DC ... 33 V DC
Operating current	≤ 80 mA
MTTFd: mean time to dangerous failure	600 years (EN ISO 13849-1) [1)]

[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.

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Mechanical data

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Weight	2.3 kg
Measuring wire material	Highly flexible stranded steel 1,4401 stainless steel V4A
Weight (measuring wire)	7.1 g/m
Housing material, wire draw mechanism	Plastic, Noryl
Spring return force	9 N ... 12 N [1]
Length of wire pulled out per revolution	555 mm
Life of wire draw mechanism	Typ. 1,000,000 cycles [2] [3]
Actual wire draw length	10.2 m
Wire acceleration	8 m/s²
Operating speed	3 m/s
Mounted encoder	ACM60, ACM60B-S1KE13X06, 6045312
Mounted mechanic	MRA-G190-110D3, 5326242

[1] These values were measred at an ambient temperature of 25 °C. There may be variations at other temperatures.
[2] Average values, which depend on the application.
[3] 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

BCG

EMC	According to EN 61000-6-2 and EN 61000-6-4
Enclosure rating	IP50
Operating temperature range	–30 °C ... +70 °C

Classifications

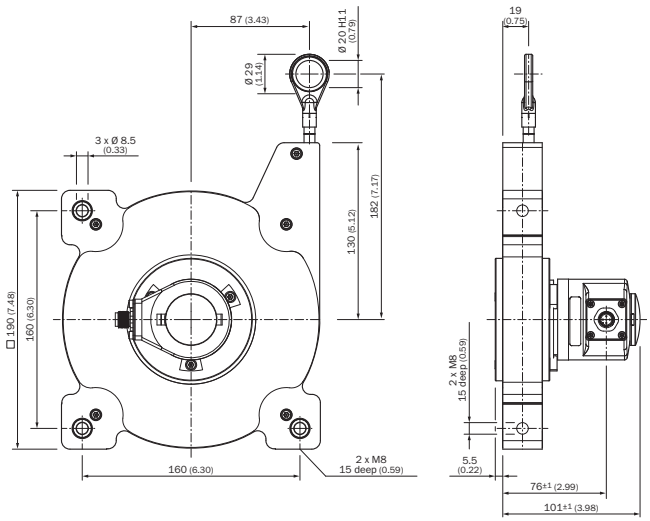
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eCl@ss 8.0	27270590
eCl@ss 8.1	27270590
eCl@ss 9.0	27270590
eCl@ss 10.0	27270613
eCl@ss 11.0	27270503
eCl@ss 12.0	27270503
ETIM 5.0	EC001486
ETIM 6.0	EC001486
ETIM 7.0	EC001486
ETIM 8.0	EC001486
UNSPSC 16.0901	41112113

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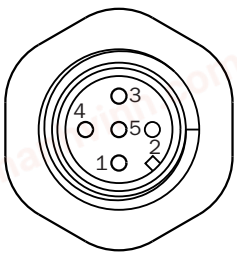
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WIRE DRAW ENCODERS

Dimensional drawing (Dimensions in mm (inch))



PIN assignment

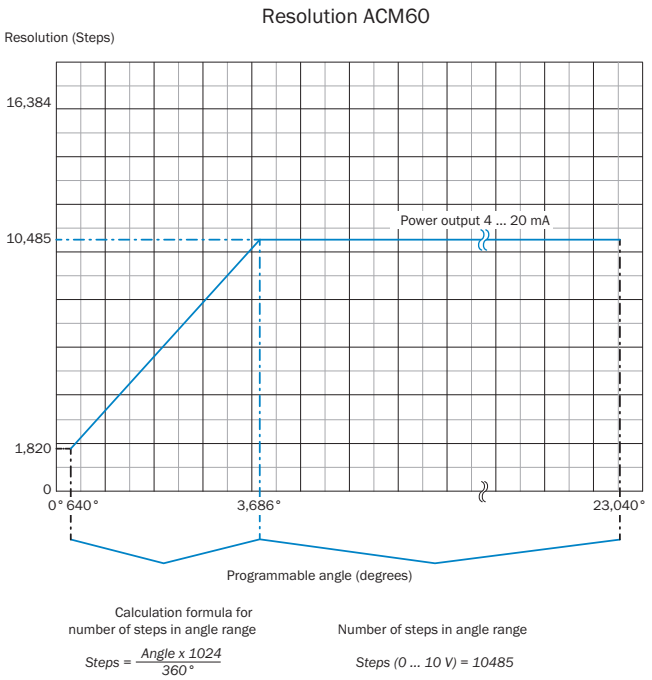


① GND
② + 24 V
③ Output signal GND
④ Output signal 4 ... 20 mA
⑤ N.C.

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Diagrams

Current output



Recommended accessories

Other models and accessories ➜ www.sick.com/EcoLine

	Brief description	Type	Part no.
Spare parts			
	Spare mounting set for MRA-G190 (10 m EcoLine)	BEF-MK-MRA-G01	5326294
Wire draw mechanism			
	EcoLine wire draw mechanism for servo flange with 6 mm shaft, measuring range 0 m ... 10 m	MRA-G190-110D3	5326242
Flanges			
	Flange adapter for EcoLine wire draw mechanisms, adaption of face mount flange with centering hub 20 mm to 50 mm servo flange, Aluminum, including 3 countersunk screws M3 x 10	BEF-FA-020-050-007	2073774

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