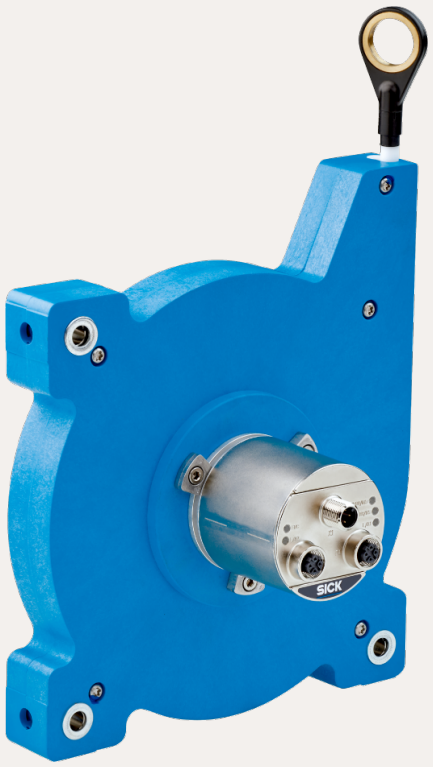
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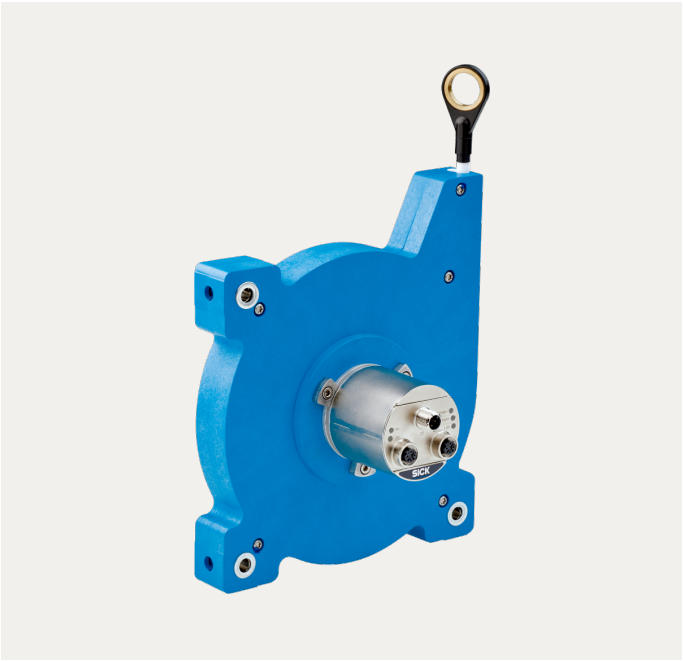


DATA SHEET

BCG19-N1BM1077

EcoLine
Wire draw encoders

SICK Sensor Intelligence



WIRE DRAW ENCODERS

BCG19-N1BM1077

ORDERING INFORMATION

Type	part no.
BCG19-N1BM1077	1150697

Further device versions and accessories at www.sick.com/EcoLine

DETAILED TECHNICAL DATA

SAFETY-RELATED PARAMETERS

$MTTF_D$ (mean time to dangerous failure)	165 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.

PERFORMANCE

Measurement range	0 m ... 10 m
Encoder	Absolute encoders
Repeatability	≤ 0.2 mm [1]
Linearity	≤ ± 2 mm [1]
Hysteresis	≤ 0.4 mm [1]

[1] Value applies to wire draw mechanism.

INTERFACES

Communication interface	PROFINET
Programmable/configurable	✓

ELECTRONICS

Connection type	Male connector, 1x, M12, 4-pin, axial Female connector, 2x, M12, 4-pin, axial
Supply voltage	10 V ... 32 V
Power consumption	≤ 3 W (without load)

MECHANICS

Weight	Approx. 2.4 kg
Measuring wire material	Highly flexible stranded steel 1,4401 stainless steel V4A
Measuring wire diameter	0.55 mm
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	ANM58 PROFINET, ANM58B-SANNB0000101000XX018X16, 1145910
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

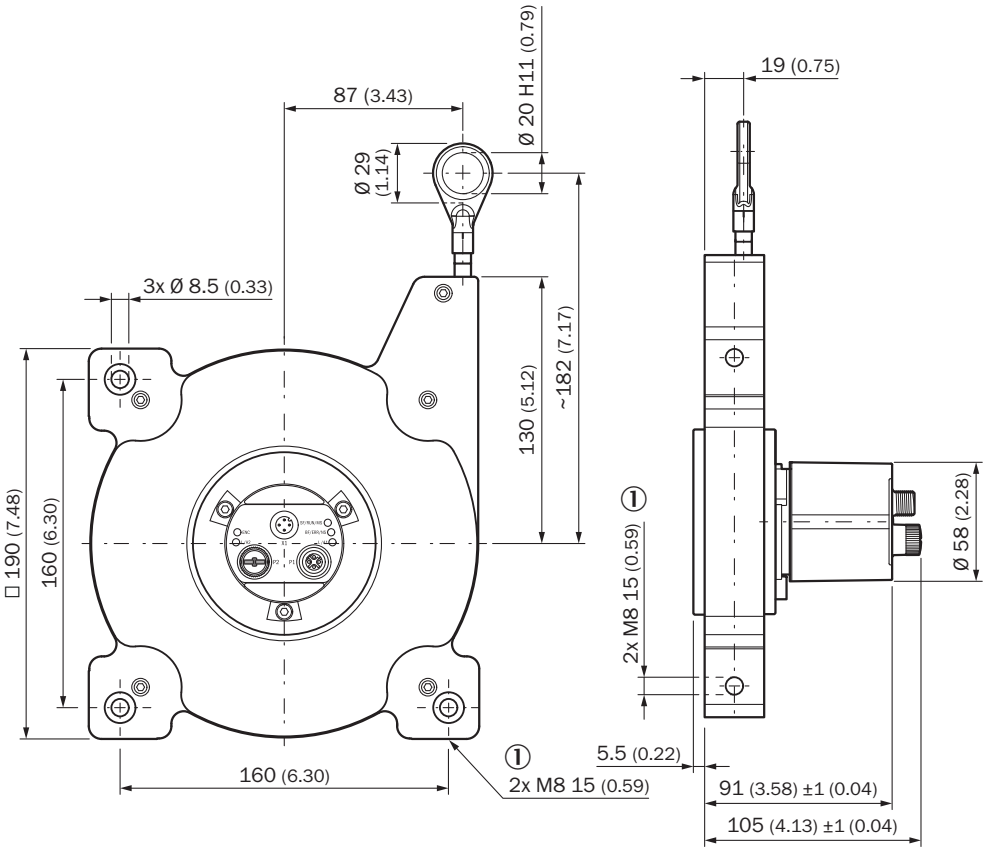
EMC	According to EN 61000-6-2 and EN 61000-6-3 [1]
Enclosure rating	IP50, mounted mechanic IP65, Encoder (IEC 60529)
Operating temperature range	–30 °C ... +70 °C

[1] EMC according to the standards quoted is achieved if shielded cables are used.

CERTIFICATES

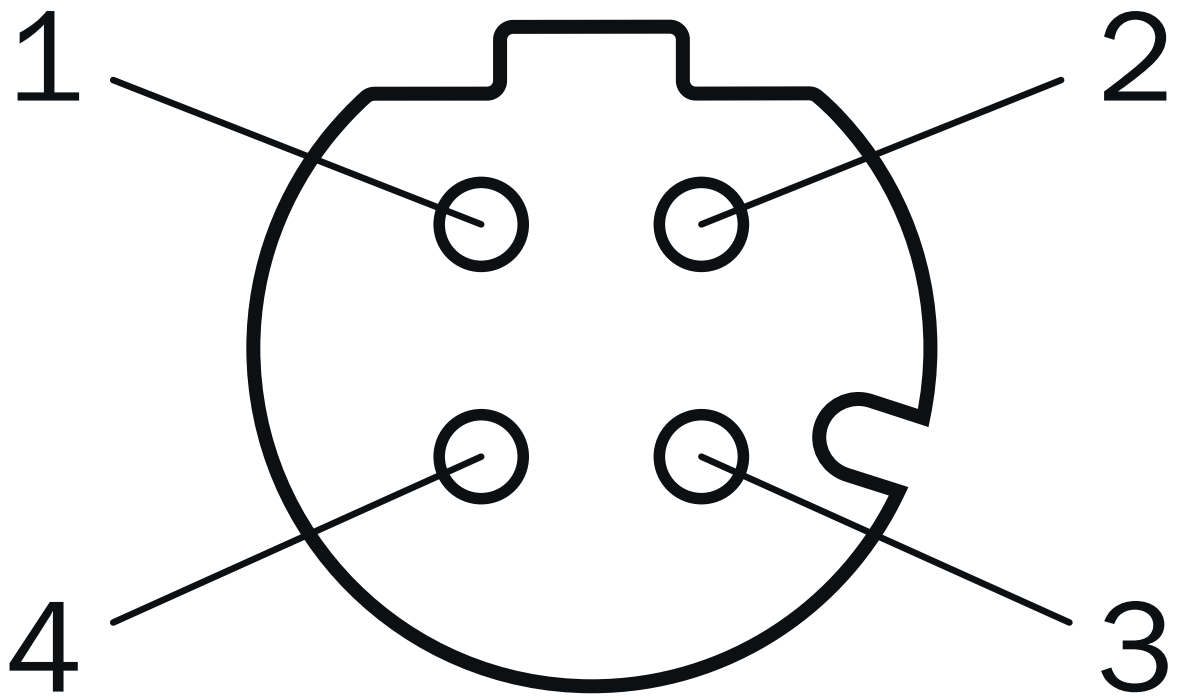
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓

DIMENSIONAL DRAWING



Dimensions in mm (inch)

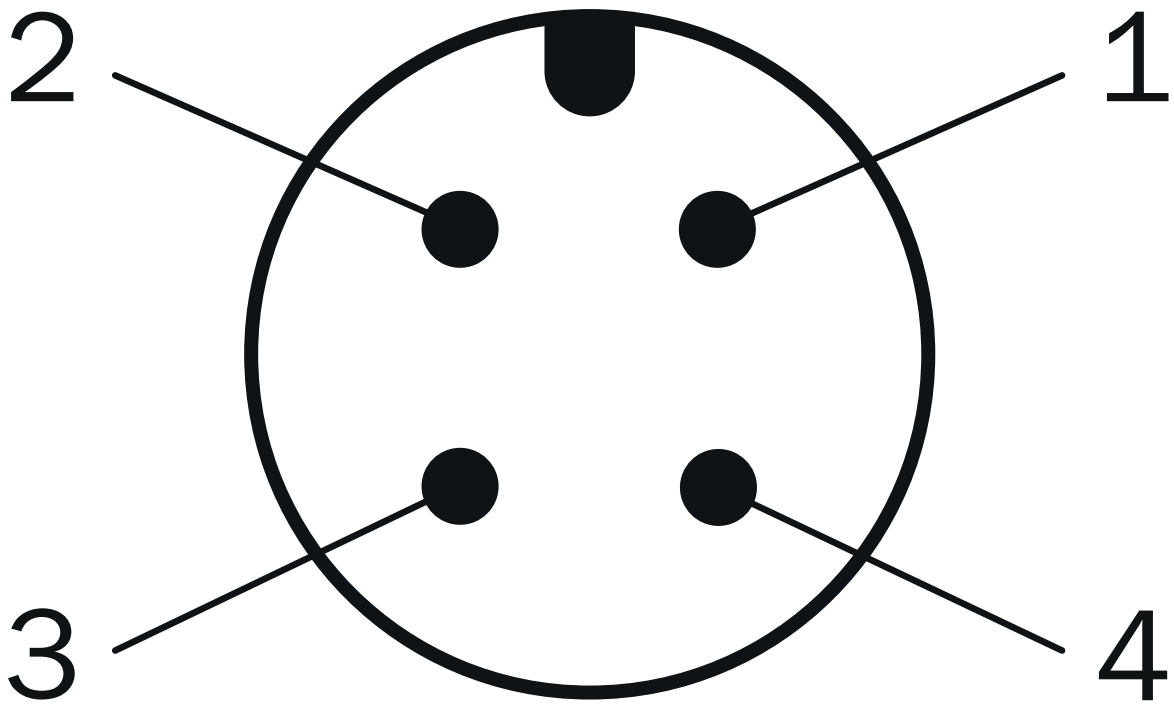
ANSCHLUSSBELEGUNG FEMALE CONNECTOR



Port 1, Port 2

PIN	Wire color	Signal
1	Yellow	T x D+
2	White	R x D+
3	Orange	T x D-
4	Blue	R x D-

ANSCHLUSSBELEGUNG MALE CONNECTOR



Supply voltage

PIN	Wire color	Signal
1	Brown	U_s 10 V ... 30 V
2	White	Not assigned
3	Blue	GND
4	Black	Not assigned

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1150697

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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