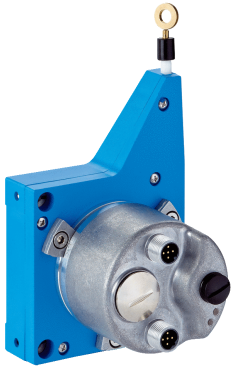


BCG08-P1BM0336

EcoLine

WIRE DRAW ENCODERS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
BCG08-P1BM0336	1052618

Included in delivery: A3M60B-S1PB013x13 (1), MRA-G080-103D3 (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

Measurement range	0 m ... 3 m
Encoder	Absolute encoders
Resolution (wire draw + encoder)	0.03 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

Communication interface	PROFIBUS DP
Programmable/configurable	✓

Electrical data

Connection type	Male connector, Female connector, 2x, 1x, M12, M12, 5-pin, 5-pin, axial, axial
Supply voltage	10 V ... 32 V
Power consumption	≤ 1.5 W (without load)
MTTFd: mean time to dangerous failure	60 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.

Mechanical data

Weight	0.53 kg
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¹⁾ These values were measured 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.

Measuring wire material	Highly flexible stranded steel 1,4401 stainless steel V4A
Measuring wire diameter	0.55 mm
Weight (measuring wire)	1.2 g/m
Housing material, wire draw mechanism	Plastic, Noryl
Spring return force	3.3 N ... 4.4 N ¹⁾
Length of wire pulled out per revolution	230 mm
Life of wire draw mechanism	Typ. 1,000,000 cycles ^{2) 3)}
Actual wire draw length	3.2 m
Wire acceleration	10 m/s ²
Operating speed	6 m/s
Mounted encoder	A3M60, A3M60B-S1PB013X13, 1051018
Mounted mechanic	MRA-G080-103D3, 5322778

¹⁾ These values were measured 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

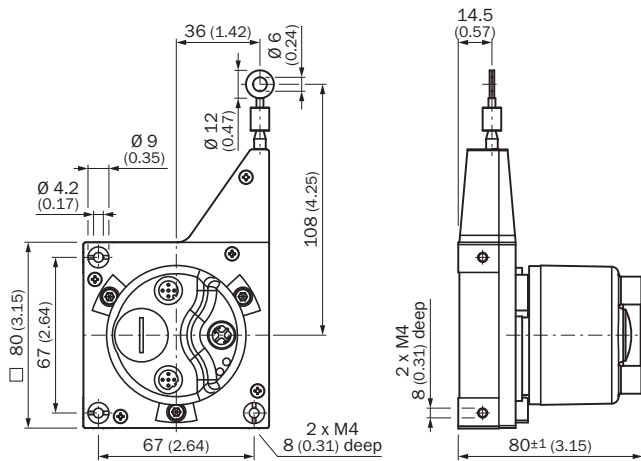
EMC	According to EN 61000-6-2 and EN 61000-6-3
Enclosure rating	IP50, mounted mechanic IP67, Encoder (IEC 60529) ¹⁾
Operating temperature range	-10 °C ... +70 °C

¹⁾ For devices with male connector: with mounted mating connector.

Classifications

eCl@ss 5.0	27270590
eCl@ss 5.1.4	27270590
eCl@ss 6.0	27270590
eCl@ss 6.2	27270590
eCl@ss 7.0	27270590
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









Dimensional drawing (Dimensions in mm (inch))



Recommended accessories

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

	Brief description	Type	Part no.
Wire draw mechanism			
	EcoLine wire draw mechanism for servo flange with 6 mm shaft, measuring range 0 m ... 3 m	MRA-G080-103D3	5322778
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
Plug connectors and cables			
	Head A: Flying leads Head B: Flying leads Cable: PROFIBUS DP, PUR, shielded	LTG-2102-MW	6021355
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m Voltage supply	DOL-1202-W05MC	6042067
	Head A: female connector, M12, 5-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m Voltage supply	DOL-1202-W10MC	6042068
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, shielded, 5 m	YF2A25-050UB6XLEAX	2095733
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, shielded, 10 m	YF2A25-100UB6XLEAX	2095734
	Head A: female connector, M12, 5-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, shielded, 20 m	YF2A25-200UB6XLEAX	2095738

	Brief description	Type	Part no.
	Head A: female connector, M12, 2-pin, straight, B-coded Head B: Flying leads Cable: Fieldbus, PROFIBUS DP, PUR, halogen-free, shielded, 5 m	YF2B22-050PB1XLEAX	2121936
	Head A: female connector, M12, 2-pin, straight, B-coded Head B: Flying leads Cable: Fieldbus, PROFIBUS DP, PUR, halogen-free, shielded, 10 m	YF2B22-100PB1XLEAX	2106269
	Head A: female connector, M12, 2-pin, straight, B-coded Head B: Flying leads Cable: Fieldbus, PROFIBUS DP, PUR, halogen-free, shielded, 15 m	YF2B22-150PB1XLEAX	2106272
	Head A: female connector, M12, 2-pin, straight, B-coded Head B: Flying leads Cable: Fieldbus, PROFIBUS DP, PUR, halogen-free, shielded, 20 m	YF2B22-200PB1XLEAX	2106273
	Head A: female connector, M12, 2-pin, angled, B-coded Head B: Flying leads Cable: Fieldbus, PROFIBUS DP, PUR, halogen-free, shielded, 5 m	YG2B22-050PB1XLEAX	2106274
	Head A: female connector, M12, 2-pin, angled, B-coded Head B: Flying leads Cable: Fieldbus, PROFIBUS DP, PUR, halogen-free, shielded, 10 m	YG2B22-100PB1XLEAX	2106275
	Head A: male connector, M12, 2-pin, straight, B-coded Head B: Flying leads Cable: Fieldbus, PROFIBUS DP, PUR, halogen-free, shielded, 5 m	YM2B22-050PB1XLEAX	2106270
	Head A: male connector, M12, 2-pin, straight, B-coded Head B: Flying leads Cable: Fieldbus, PROFIBUS DP, PUR, halogen-free, shielded, 10 m	YM2B22-100PB1XLEAX	2106271
	Head A: male connector, M12, 2-pin, straight, B-coded Head B: Flying leads Cable: Fieldbus, PROFIBUS DP, PUR, halogen-free, shielded, 15 m	YM2B22-150PB1XLEAX	2106276
	Head A: male connector, M12, 2-pin, angled, B-coded Head B: Flying leads Cable: Fieldbus, PROFIBUS DP, PUR, halogen-free, shielded, 5 m	YN2B22-050PB1XLEAX	2106277
	Head A: male connector, M12, 2-pin, angled, B-coded Head B: Flying leads Cable: Fieldbus, PROFIBUS DP, PUR, halogen-free, shielded, 10 m	YN2B22-100PB1XLEAX	2106278
	Head A: female connector, M12, 5-pin, straight, B-coded Head B: male connector, M12, 5-pin, straight, B-coded Cable: PROFIBUS DP, twisted pair, PUR, halogen-free, shielded, 10 m Wire shield Al-Pt film, overall shield C-screen tin-plated	DSL-1205-G10MQ	6032640
	Head A: female connector, M12, 4-pin, straight Cable: unshielded	DOS-1204-G	6007302
	Head A: female connector, M12, 4-pin, angled Cable: unshielded	DOS-1204-W	6007303
	Head A: female connector, M12, 5-pin, straight, B-coded Cable: PROFIBUS DP, shielded	DOS-1205-GQ	6021353
	Head A: female connector, M12, 5-pin, angled, B-coded (B-inverse) Cable: PROFIBUS DP, PROFIBUS DP, shielded	DOS-1205-WQ	6041429
	Head A: male connector, M12, 5-pin, straight, B-coded Cable: PROFIBUS DP, shielded	STE-1205-GQ	6021354

	Brief description	Type	Part no.
	Head A: male connector, M12, 5-pin, angled, B-coded Cable: PROFIBUS DP, shielded	STE-1205-WQ	6041428
	Cable: unshielded, set of connectors Head A: male connector, M12, 4-pin, straight, B-coded Cable: PROFIBUS DP, terminal resistor	DOS-3XM12-W	2058177
		STE-END-Q	6021156

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.”

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