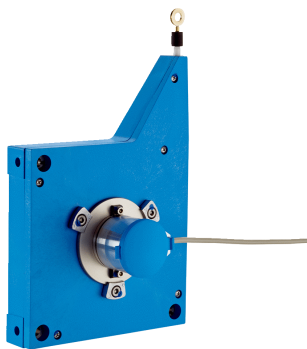


BCG13-L1KM05PP

EcoLine

WIRE DRAW ENCODERS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
BCG13-L1KM05PP	6039750

Included in delivery: ACM36-L1K0-K01 (1), MRA-G130-105D3 (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 ... 5 m
Encoder	Absolute encoders
Resolution (wire draw + encoder)	0.1 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	Analog / Voltage / 0...10 V
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Electrical data

Connection type	Cable, radial, 1.5 m
Supply voltage	19 V DC ... 33 V DC
Operating current	≤ 80 mA
MTTFd: mean time to dangerous failure	850 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	1.2 kg
Measuring wire material	Highly flexible stranded steel 1,4401 stainless steel V4A
Measuring wire diameter	0.55 mm

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.

Weight (measuring wire)	1.2 g/m
Housing material, wire draw mechanism	Plastic, Noryl
Spring return force	4.5 N ... 7 N ¹⁾
Length of wire pulled out per revolution	385 mm
Life of wire draw mechanism	Typ. 1,000,000 cycles ^{2) 3)}
Actual wire draw length	5.2 m
Wire acceleration	4 m/s ²
Operating speed	3 m/s
Mounted encoder	ACM36, ACM36-L1K0-K01, 6039752
Mounted mechanic	MRA-G130-105D3, 5322779

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.

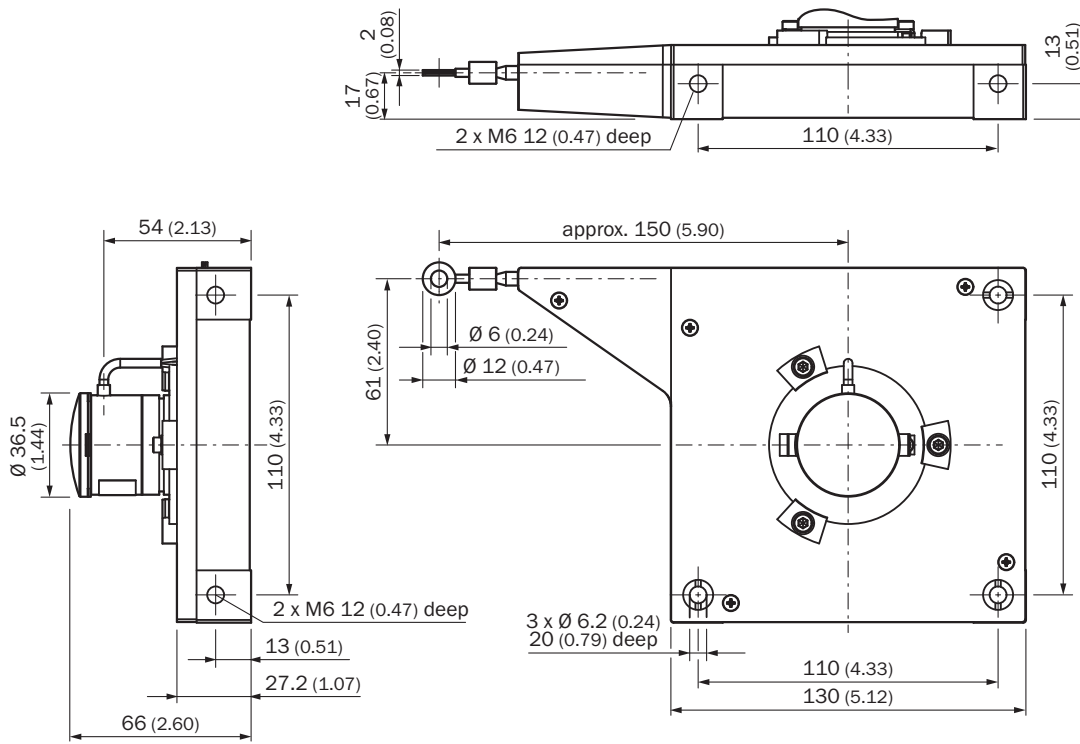
Ambient data

EMC	According to EN 61000-6-2 and EN 61000-6-4
Enclosure rating	IP50, mounted mechanic IP65, Encoder
Operating temperature range	-30 °C ... +70 °C

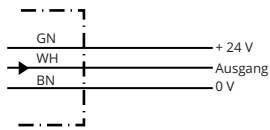
Classifications

ECLASS 5.0	27270590
ECLASS 5.1.4	27270590
ECLASS 6.0	27270590
ECLASS 6.2	27270590
ECLASS 7.0	27270590
ECLASS 8.0	27270590
ECLASS 8.1	27270590
ECLASS 9.0	27270590
ECLASS 10.0	27270613
ECLASS 11.0	27270503
ECLASS 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))



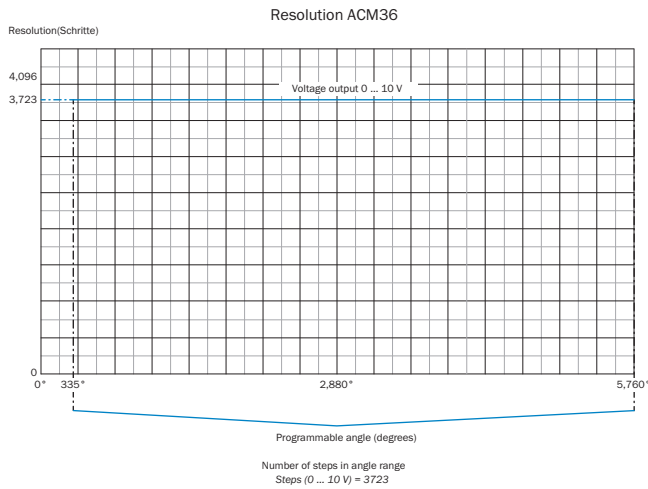
PIN assignment



GN	+ 24 V
WH	Output
BN	0 V

Diagrams



Multiturn, voltage output



Configured range (a) must be at least 10°

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 ... 5 m	MRA-G130-105D3	5322779
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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