Product data sheet

BCV08-K1KM03P200

VarioLine

WIRE DRAW ENCODERS

SICK
Sensor Intelligence.

Ordering information

Type	Part no.
BCV08-K1KM03P200	6084942

Included in delivery: ACM36-K1K0-K01 (1), MRA-V080-103D3 (1)

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

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

Detailed technical data

Performance

Measurement range	0 m ... 3 m
Encoder	Absolute encoders
Resolution (wire draw + encoder)	0.06 mm [1) 2)]
Repeatability	≤ 0.3 mm [3)]
Linearity	≤ ± 2 mm [3)]
Hysteresis	≤ 1.2 mm [3)]

[1)] The values shown have been rounded.

[2)] Example calculation based on the BCV08 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 / Current / 4...20 mA

Electrical data

Connection type	Cable, radial, 1.5 m
Supply voltage	19 V DC ... 33 V DC
Operating current	≤ 80 mA (without load)
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	0.7 kg
Measuring wire material	Stainless steel 1.4401
Measuring wire diameter	0.81 mm

[1)] These values were measred at an ambient temperature of 25 °C. There may be variations at other temperatures.

[2)] 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.

Housing material, wire draw mechanism	Stainless steel 1.4301
Spring return force	8 N ... 10 N [1]
Length of wire pulled out per revolution	230 mm
Life of wire draw mechanism	Typ. 1,000,000 cycles [2]
Actual wire draw length	3.2 m
Operating speed	4 m/s
Mounted encoder	ACM36, ACM36-K1K0-K01, 6039751
Mounted mechanic	MRA-V080-103D3, 5347779

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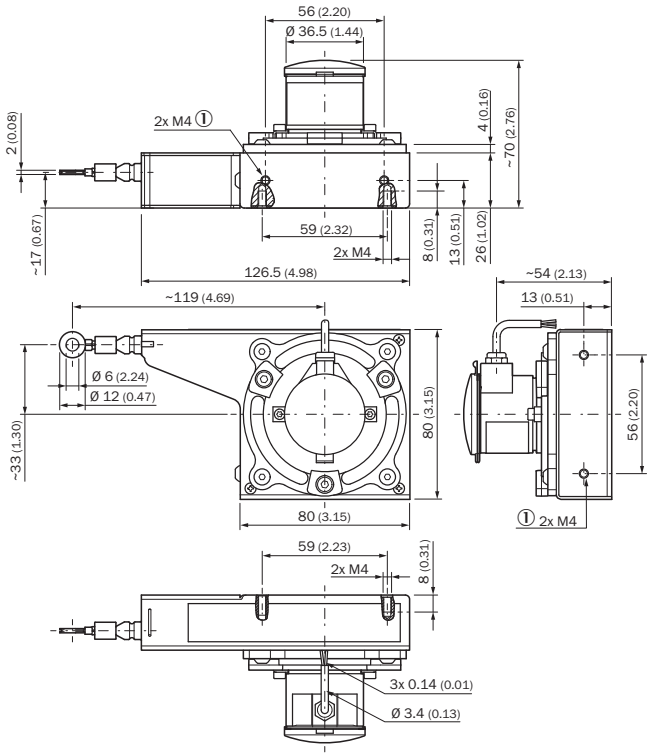
Ambient data

EMC	According to EN 61000-6-2 and EN 61000-6-4
Enclosure rating	IP60, mounted mechanic IP65, Encoder
Operating temperature range	–30 °C ... +70 °C

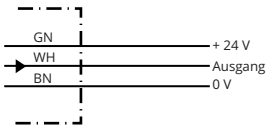
Classifications

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))



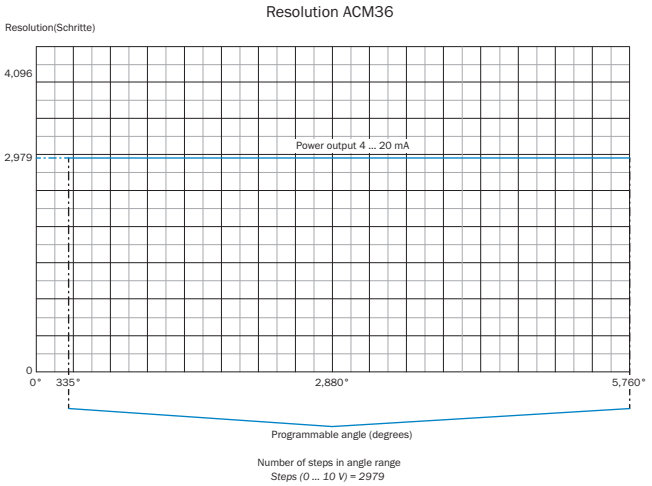
PIN assignment



Color	Signal
Green	+ 24 V
White	Output
Brown	0 V

Diagrams

Multiturn, current output



Configured range (α) must be at least 10 °

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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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