



Wire draw encoders  
EcoLine

BCG05-L1KM01PP



**Model Name** > **BCG05-L1KM01PP**  
**Part No.** > **6039746**



Illustration may differ

**At a glance**

- Measuring lengths of 1.25 m, 3 m, 5 m, and 10 m.
- Very small dimension (55 ... 190 mm)
- Modular system: encoder type, measuring length, and interface can be selected
- Programmable encoders: Resolution, interface and measuring range
- Light yet shock-proof and temperature-resistant plastic housing (Noryl)
- Space-saving and cost-effective design
- Analog interface with pushbutton teach at the encoder

**Your benefits**

- Easy to install thanks to pushbutton teach
- Suitable for tight installation spaces as a result of slim, compact design
- High precision due to the elimination of the coupling between the encoder and mechanism
- Wide range of applications thanks to the numerous encoders, interfaces, and measuring lengths
- The absolute analog output allows for the use of a cost-effective interface card
- Options for customization, such as programmability, reduce storage and downtime costs
- Greater vibration resistance thanks to the integration of the spring in the measuring drum



**Performance**

Measuring range:	0 m ... 1.25 m
Repeatability:	≤ 0.2 mm <sup>1)</sup>
Linearity:	≤ ± 2 mm <sup>2)</sup>
Hysteresis:	≤ 0.4 mm <sup>3)</sup>
Resolution (wire draw + encoder)::	0.04 mm <sup>4) 5)</sup>

<sup>1) 2) 3)</sup> Value refers to wire draw mechanism <sup>4) 5)</sup>

**Mechanical data**

Mass (including encoder):	200 g
Mass (mechanics):	80 g
Measuring wire diameter:	0.45 mm
Measuring wire material:	Highly flexible stranded steel 1.4401 stainless steel V4A/PA sheathed
Housing material, wire draw mechanism:	Plastic, Noryl
Spring return force:	Ca. 1 N ... ca. 1.4 N <sup>1)</sup>

Life of wire draw mechanism:	1 million cycles <sup>2)</sup>
Actual length of cable extension:	1.45 m
Wire acceleration:	10 m/s <sup>2</sup>
Operating speed:	4 m/s
Mounted encoder:	ACM36
Mounted mechanic:	MRA-G055-101D4
Part number mechanic:	5324019
Part number encoder:	6039752
Mass (measuring wire):	0.58 g/m
Length of wire pulled out per revolution:	150 mm

<sup>1)</sup> These values were measured at an ambient temperature of 25 °C. There may be variations at other temperatures. <sup>2)</sup>

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### Electrical data

Initialization time:	< 2 ms <sup>1)</sup>
Supply voltage:	19 V ... 33 V
Power consumption:	2 W

<sup>1)</sup> Valid positional data can be read once this time has elapsed.

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### Interfaces

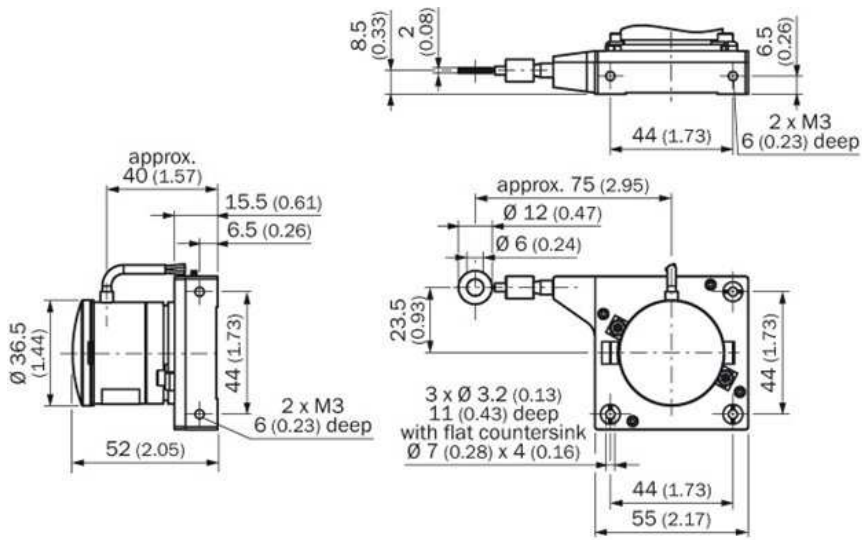
Electrical interface:	0 V ... 10 V, Analog
Electrical connection:	Cable, 3-wire, radial, 1.5 m
Clock frequency:	32 kHz
SET (electronic adjustment):	Über Programmierfolie
Encoder:	Absolute encoders

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### Ambient data

EMC:	(according to EN 61000-6-2 and EN 61000-6-3)
Enclosure rating encoder:	IP 65
Enclosure rating mechanic:	IP 50
Resistance to shocks:	50 g, 6 ms (according to EN 60068-2-27)
Resistance to vibration:	4 g, Sinus 5 Hz ... 100 Hz (according to EN 60068-2-6)
Working temperature range (encoder):	-30 °C ... +70 °C
Working temperature range (mechanics):	-30 °C ... +70 °C
Working temperature range (combination):	Wird definiert durch den höheren minimalen und niedrigeren maximalen Wert des Arbeitstemperaturbereichs von Encoder und Mechanik

Dimensional drawing



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