

ONLINE DATA SHEET
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Wire draw encoders
HighLine

BTF13-K1EM05PP



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HighLine

Model Name > BTF13-K1EM05PP
Part No. > 1060982

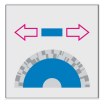




Illustration may differ

At a glance

- Absolute wire draw encoders
- Modular measuring system with a wide selection of interfaces/measuring lengths
- Measuring lengths: 2 m ... 50 m
- Very rugged system (dirt wiper, integrated brushes), highly shock and vibration resistant
- High-quality winding mechanism and wire input
- Interfaces: - ANALOG, SSI, PROFIBUS, CANopen, DeviceNet, HIPERFACE®
- High enclosure rating
- High resolution possible

Your benefits

- Reliable solution in harsh environments
- Long service life due to rugged industrial housing
- Quick and easy installation without the need for precise linear guidance
- Low integration and maintenance costs
- Customization option reduces storage costs
- No reference run necessary thanks to the absolute measuring principle
- Teach-in function enables fast commissioning

CE

Performance

Measurement range:	0 m ... 5 m
Repeatability:	≤ 1 mm [1)]
Linearity:	≤ ± 2 mm [2)]
Hysteresis:	≤ 2 mm [3)]
Resolution (wire draw + encoder)::	0.02 mm [4) 5)]

1) 3) Value refers to wire draw mechanism 2) 4) 5)

Mechanical data

Mass (including encoder):	3.2 kg
Mass (mechanics):	2.8 kg
Measuring wire diameter:	1.35 mm
Measuring wire material:	Highly flexible stranded steel 1.4401 stainless steel V4A
Housing material, wire draw mechanism:	Aluminum (anodised), plastic
Spring return force:	15 N ... 20 N [1)]
Life of wire draw mechanism:	1 million cycles [2)]

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Actual length of cable extension:	5.2 m
Wire acceleration:	70 m/s²
Operating speed:	4 m/s
Mounted encoder:	ACM60
Mounted mechanic:	MRA-F130-105D2
Part number mechanic:	6028626
Part number encoder:	6045312
Length of wire pulled out per revolution:	334.1 mm [3]

[1] These values were measred at an ambient temperature of 25 °C. There may be variations at other temperatures. [2] [3]

Electrical data

Initialization time:	≤ 2 ms [1]
Supply voltage:	18 V ... 33 V
Power consumption:	2 W

[1] Valid positional data can be read once this time has elapsed.

Interfaces

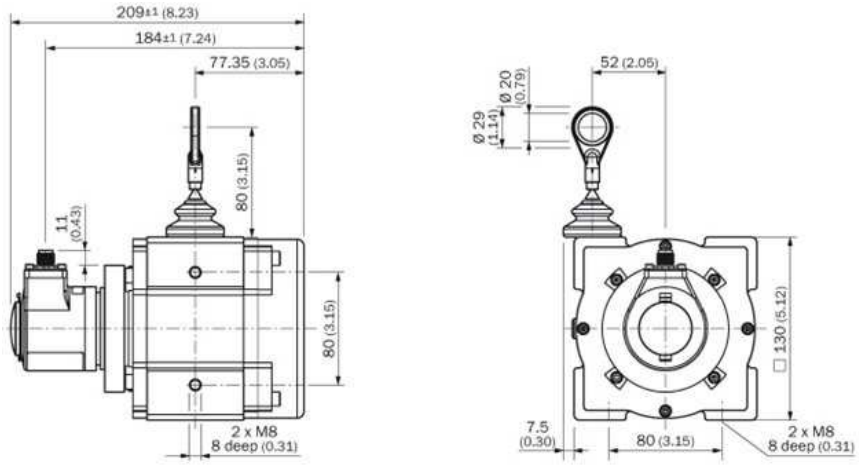
Electrical interface:	4 mA ... 20 mA, Analog
Connection type:	Connector 1 x M12, 5-pin, radial
Clock frequency:	32 kHz
SET (electronic adjustment):	Über Programmierfolie
Encoder:	Absolute encoders

Ambient data

EMC:	(according to EN 61000-6-2 and EN 61000-6-3)
Enclosure rating encoder:	IP 65
Enclosure rating mechanic:	IP 64
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 mininalen und niedrigeren maximalen Wert des Arbeitstemperaturbereichs von Encoder und Mechanik

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Dimensional drawing



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