



1) Not incl. in scope of del. 2) Unusable area 3) Nom. stroke = Meas. length 10) Zero point 11) Overall length

■ **Series Profile**
 ■ **Analog interface, voltage**



General attributes

Approvals / Conformity	CE
Enclosure Type per IEC 60529	cURus
Generation	IP67
No of magnets, factory setting	Generation 5
Polarity reversal protected	1 ST
	Yes
Electrical attributes	
Connection type	Connector
Current draw (at 24 V DC)	≤ 150 mA
Error signal Ua falling	≤ -1 V
Error signal Ua rising	≥ 11 V
For dynamic loop applications	No
Inrush current	≤ 3 A / 0.5 ms
Interface	Analog interface, voltage
Interface group	Analog
Non-linearity max.	±100 µm
Number of magnets max.	1 ST
Operating voltage UB max. DC [V]	28.0 V
Operating voltage UB min. DC [V]	20.0 V
Output signal	0...10 V and 10...0 V
Output signal adjustable	No
Overshoot protected	Yes
Potential isolation	Yes
Ripple	0.5 Vpp
Ripple Ua max.	5 mV
Voltage resist (GND – housing)	500 V DC

Mechanical attributes

Nominal stroke	175 mm
Ambient temperature Ta max.	85 °C
Ambient temperature Ta min.	-40 °C
Cable/connector out	Axial
Connector type	M16
EN55016-2-3 (emission)	Industrial sector

EN60068-2-27 (shock)	100 g / 6 ms
EN60068-2-29 (contin. shock)	100 g / 2 ms
EN60068-2-6 (vibration)	12 g, 10...2000 Hz
EN60068-2-64 (noise)	5 g, 10...2000 Hz
EN61000-4-2 (ESD)	Severity Level 3
EN61000-4-3 (RFI)	Severity Level 3
EN61000-4-4 (Burst)	Severity Level 3
EN61000-4-5 (Surge)	Severity Level 2
EN61000-4-6 (HF fields)	Severity Level 3
EN61000-4-8 (magnetic fields)	Severity Level 4
Housing material	Anodized aluminum
Mounting type	Mounting clamps
Nominal stroke	175 mm
Null point	73.0 mm
Number of poles	8
Profile height	36.8 mm
Relative humidity	< 90 %, non-condensing
Repeat accuracy	≤ 0.1 mV
Resolution	≤ ±2 µm
Sampling rate (length-depend.)	1 kHz, standard
Speed max., detectable	10 m/s
Storage temperature max.	100 °C
Storage temperature min.	-40 °C
Style	Series Profile
TK, typ. (at 50 % of 500 mm)	≤ 35 ppm/K
Version	Type P

Remarks

For further information on MTTF/B10d, please refer to the MTTF / B10d Certificate.

Specification of the MTTF value and the B10d value do not represent any binding quality and/or life expectancy guarantees.

Micropulse transducer

BTL5-A11-M0175-P-SA167-S32
BTL02PE

BALLUFF
sensors worldwide

Pin	
1	GND output
2	GND output
3	10...0 V
4	NC
5	0...10 V
6	GND
7	+24 V DC
8	NC

