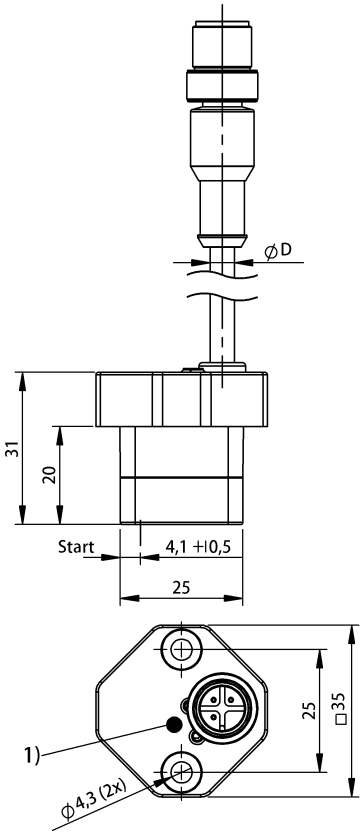
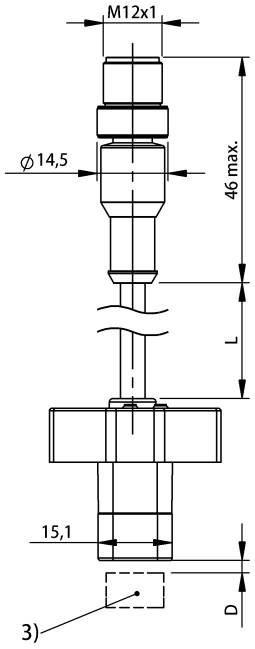
Inductive Sensors

BIP LD2-T017-01-EP00,5-S4
Order Code: BIP001Y





1) LED function indicator, 3) Encoder

Basic features

Application	Positioning
Approval/Conformity	CE UKCA cURus WEEE
Basic standard	IEC 60947-5-2 IEC 60947-5-7

Display/Operation

Function indicator	Adjustment indicator
Power indicator	no

Electrical connection

Bending radius min., fixed cable	3 x D
Bending radius min., flexible cable	5 x D
Cable diameter D	2.85...3 mm
Cable length L	0.5 m
Conductor cross-section	0.14 mm²
Connection	M12x1-Male, 3-pin, A-coded
Connection type	Cable with connector, 0.5 m, PUR
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

No-load current Io max. at Ue	20 mA
Operating voltage Ub	18...30 VDC
Rated insulation voltage Ui	75 V DC
Rated operating voltage Ue DC	24 V
Ripple max. (% of Ue)	10 %

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Environmental conditions

Ambient temperature	-25...70 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g_n, 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 2 mm, 3x30 min
IP rating	IP67

Functional safety

MTTF (40 °C)	200 a

IO-Link

IO-Link Profil IDs	0x000A SSP3.1 0x4000 Identification and Diagnosis

Interface

Interface	IO-Link 1.1

Material

Cable shield	no
Housing material	PA
Material jacket	PUR
Material sensing surface	PA

Mechanical data

Dimension	35 x 35 x 31 mm
Tightening torque max.	0.5 Nm

Range/Distance

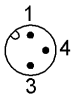
Linearity range Sl	0...17 mm
Measuring range	0...17 mm
Non-linearity max.	±250 µm
Repeat accuracy per BWN	±50 µm
Temperature drift max. from end value	±3.0 %

Remarks

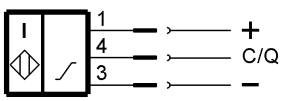
Please refer to manual.
Specification applies to the recommended damper BAM TG-XE-020 at D = 1 mm
The measuring range is teachable via IO-Link.
For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

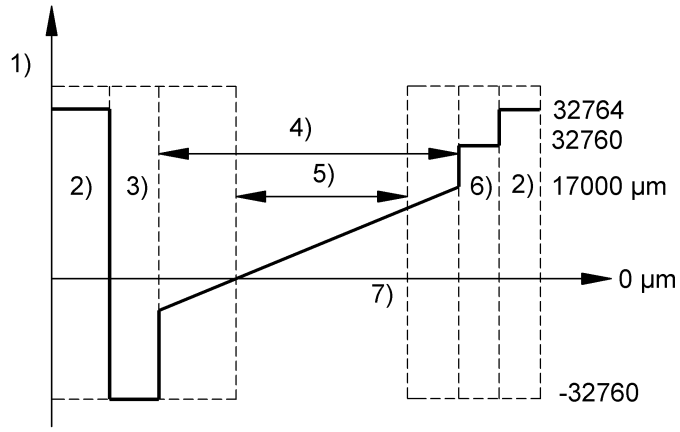
Connector Drawings



Wiring Diagrams



Technical Drawings



1) Measured value
2) No position encoder
3) Out of Range (negativ)
4) Detection range
5) Measuring range
6) Out of Range (positiv)
7) Position

Help Views

		16	8								0
Bit offset	Integer T(16)		Integer T(8)	8 bit							
SDCI	Measurement value		Scale	Vendor specific							
Transmission direction	Byte 3	Byte 2	Byte 1	Byte 0							
	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7 6 5 4 3 2 1 0	7	6	5	4	3	2	1	0
Desription	Measurment value		Scale	System error	OoR no data	OoR out of range	nicht unterstützt	SSC4	SSC3	SSC2	SSC1
Type	INT 16 (signed integer)		INT8	BOOL							
Value	Nominlalwerte sind 0...17000 Out of range -32760...+32760 No measurement = 32764		-6 (µm)	0							

Bit	Name	Funktion
7	System error	System meldet Übertemperatur
6	OoR no data	Der Positionsgeber befindet sich außerhalb des eingestellten Messbereichs
5	OoR out of range	Der Positionsgeber befindet sich außerhalb des eingestellten Messbereichs
4	Unsafe value	Nicht unterstützt
3	SSC4	Schaltinformation des vierten Schaltpunkts
2	SSC3	Schaltinformation des dritten Schaltpunkts
1	SSC2	Schaltinformation des zweiten Schaltpunkts
0	SSC1	Schaltinformation des ersten Schaltpunkts