

1) Sensing surface



Basic features

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

Display/Operation

Function indicator	no
Power indicator	no

Electrical connection

Bending radius min., fixed cable	3 x D
Bending radius min., flexible cable	Fixed installation only.
Cable diameter D	3.5 mm
Cable length L	1 m
Conductor cross-section	0.14 mm ²
Connection type	Cable, 1 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 I _o max. at U _e	19 mA
Operating voltage U _b	18...30 VDC
Rated insulation voltage U _i	75 V DC
Rated operating voltage U _e DC	24 V
Ready delay t _v max.	300 ms
Ripple max. (% of U _e)	10 %

Inductive Sensors
BIP LD2-T017-04-BP01
Order Code: BIP001N



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 1 mm, 3x30 min
IP rating	IP67
Storage temperature	-40...85 °C

Functional safety

MTTF (40 °C)	375 a
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IO-Link

IO-Link Profil IDs	0x0001 SSP0
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Interface

Interface	IO-Link 1.1
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Material

Cable shield	yes
Housing material	PA
Material jacket	PUR
Material sensing surface	PA

Mechanical data

Dimension	30 x 18 x 40.5 mm
Mounting length	22 mm
Tightening torque max.	0.5 Nm

Range/Distance

Linearity range SI	0...17 mm
Measuring range	0...17 mm
Non-linearity max.	±250 µm
Repeat accuracy per BWN	±40 µm
Temperature drift max. from end value	±3.0 %

Remarks

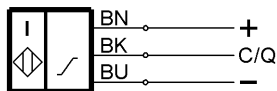
Please refer to manual.

Specification applies to recommended target (BAM TG--XE-020)

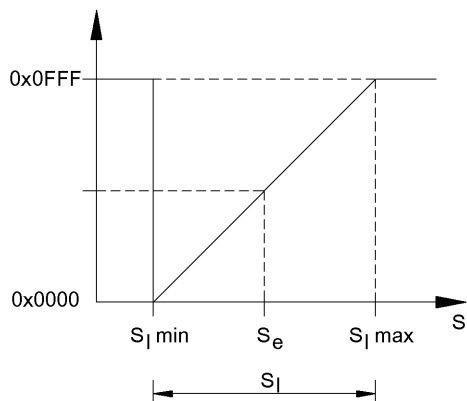
For more information about MTTF and B10d see MTTF / B10d Certificate

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.

Wiring Diagrams



Technical Drawings



Help Views

Process data

Octet 0								Octet 1							
7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0
MSB								LSB							
Position value								OoR	BDC3	BDC2	BDC1				

BDC1...3	Switchpoint information
1	Active
0	Inactive

OoR	Position target detection
1	Active
0	Inactive

Identification parameters

Index		Parameters	Data format (length)	Access	Contents
Hex.	Dec.				
0010	16	Vendor name	StringT (7 bytes)	Read only	"BALLUFF"
0011	17	Vendor text	StringT (15 bytes)	Read only	"www.balluff.com"
0012	18	Product name	StringT (21 bytes)	Read only	"BIP LD2-T017-04-BP _ _"
0013	19	Product ID	StringT (7 bytes)	Read only	"BIP _ _ _ _"
0014	20	Product text	StringT (28 bytes)	Read only	"Inductive Positioning System"
0016	22	Hardware revision	StringT (3 bytes)	Read only	"v1.0"
0017	23	Firmware revision	StringT (8 bytes)	Read only	"1.00.000"
0018	24	Application specific tag	StringT (max. 32 bytes)	Read/Write	***