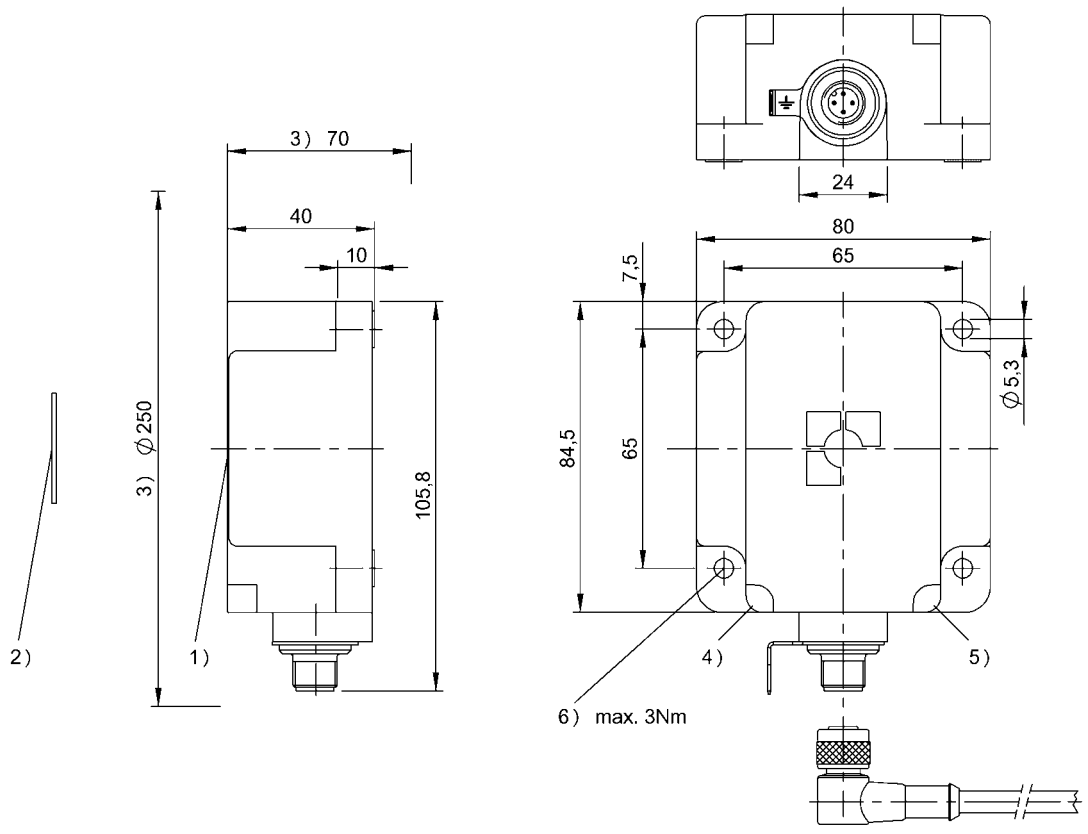


HF (13.56 MHz)  
 BIS M-401-045-001-07-S4  
 Order Code: BIS00LK

# BALLUFF



- 1) Sensing surface
- 2) Data carrier
- 3) Clear zone
- 4) LED (Power)
- 5) LED (TP)
- 6) Tightening torque



### Basic features

Antenna type	round
Approval/Conformity	CE FCC Part 15 IC RSS-210 cULus EAC WEEE
EN 55022	Size 1, Cl. A
Principle of operation	Processor unit

### Display/Operation

Function indicator	Power (ON) Green LED TP (Tag Present) LED yellow
--------------------	---

### Electrical connection

Connection	M12x1-Male, 4-pin, A-coded
------------	----------------------------

HF (13.56 MHz)  
**BIS M-401-045-001-07-S4**  
**Order Code: BIS00LK**

**BALLUFF**

**Electrical data**

<b>Current consumption max. at 24 V DC</b>	150 mA
<b>EN 300330-1</b>	Power Class 5
<b>Operating voltage Ub</b>	18...30 VDC Supports only LPS/ Class 2
<b>Residual ripple max.</b>	1.3 Vpp

**Environmental conditions**

<b>Ambient temperature</b>	0...70 °C
<b>Continuous shock load</b>	yes
<b>EN 60068-2-27, Shock</b>	yes
<b>EN 60068-2-32 Free fall</b>	yes
<b>EN 60068-2-6, Vibration</b>	yes
<b>IP rating</b>	IP67
<b>Storage temperature</b>	-20...85 °C

**Functional Characteristics**

<b>Supported data carrier types</b>	DIN
	ISO
	14443
	DIN ISO 15693

**Material**

<b>Housing material</b>	PBT
-------------------------	-----

**Mechanical data**

<b>Application weight</b>	380.00 g
<b>Dimension</b>	80 x 40 x 84.5 mm
<b>Installation</b>	metal-free (clear zone)

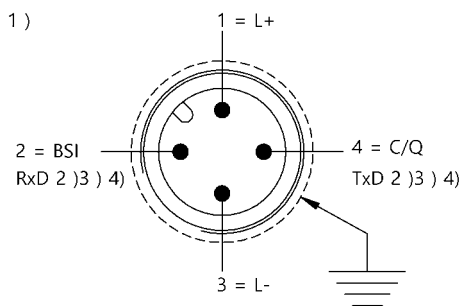
**Output/Interface**

<b>IO-Link version</b>	1.1
<b>Interface</b>	IO-Link 1.1
<b>Process data IN</b>	10 bytes

**Remarks**

For basic equipment see IO-Link catalog.  
 When installing, the technical standards and regulations of the corresponding countries must be observed.  
 Values are under rated conditions unless otherwise specified.  
 Order accessories separately.  
 For installation in metal: Observe clear zone.

**Connector Drawings**



- 1) View towards connector
- 2) BSI service interface
- 3) Do not connect power
- 4) (Only for Balluff Service)

**Help Views**

HF (13.56 MHz)

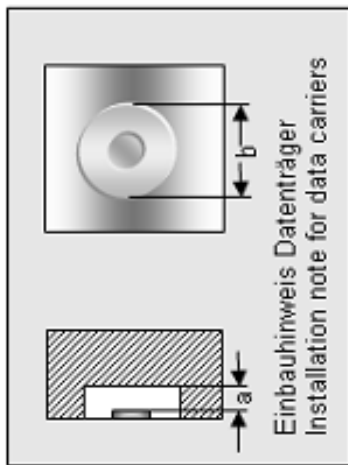
BIS M-401-045-001-07-S4

Order Code: BIS00LK

**BALLUFF**

**BIS M-401-\_\_**

	BIS M-101-01/L	BIS M-102-01/L	BIS M-120-01/L	BIS M-108-02/L	BIS M-110-02/L
passende Datenträger Appropriate data carriers					
Abstand Datenträger zu Metall in mm ( a ) Data carrier distance to metal in mm	>50 >25 >10	>50 >25 >10	>80	>50 >20	>50 >30
Freizone Datenträger in mm ( b ) Data carrier clear zone in mm	>200 >150 >150	>200 >150 >150	>250	>200 >60	>200 >100
Schreibabstand in mm Write distance in mm	0-28 0-25 0-20	0-45 0-40 0-34	0-50	0-40 0-18	0-30 0-18
Leseabstand in mm Read distance in mm	0-28 0-25 0-20	0-45 0-40 0-34	0-50	0-40 0-18	0-30 0-18
Versatz in mm bei Abstand von	0 ±22 ±18 ±12 5 ±22 ±18 ±12 9 ±22 ±18 ±10 12 ±22 ±16 ±8 15 ±22 ±16 ±8 16 ±20 ±15 ±6 18 ±20 ±13 ±4 20 ±20 ±12 ±2 22 ±16 ±8 25 ±12 ±4	±30 ±24 ±16 ±30 ±24 ±16 ±30 ±24 ±16 ±30 ±24 ±14 ±30 ±24 ±14 ±30 ±20 ±12 ±30 ±20 ±10 ±30 ±20 ±10 ±24 ±18 ±8 ±24 ±18 ±8 ±24 ±15 ±6 ±20 ±12 ±4 ±20 ±10 ±15 ±5 ±8 ±5	±30 ±30 ±30 ±30 ±30 ±30 ±30 ±30 ±30 ±20 ±20 ±28 ±24 ±22 ±18 ±14 ±12 ±4	±30 ±16 ±30 ±16 ±30 ±16 ±25 ±16 ±25 ±16 ±25 ±16 ±25 ±14 ±25 ±20 ±20 ±20 ±15 ±15 ±10 ±10 ±15	±25 ±18 ±25 ±18 ±25 ±15 ±20 ±15 ±20 ±12 ±20 ±12 ±20 ±8 ±20 ±15 ±15 ±10 ±10 ±15
Offset in mm at distance					
	0				
	5				
	9				
	12				
	15				
	16				
	18				
	20				
	22				
	25				
	30				
	32				
	35				
	40				
	43				
	45				
	50				
	52				
	60				
	65				
	70				



HF (13.56 MHz)

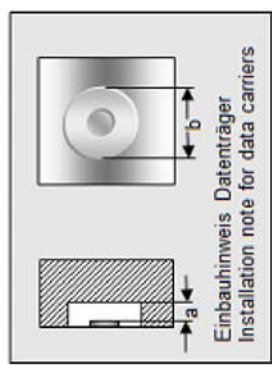
BIS M-401-045-001-07-S4

Order Code: BIS00LK

**BALLUFF**

**BIS M-401-\_\_**

	BIS M-111-02/L	BIS M112-02/L	BIS M-140-02/A	BIS M-143-02/A-xx
passende Datenträger Appropriate data carriers				
Abstand Datenträger zu Metall in mm ( a ) Data carrier distance to metal in mm	>50 >30	>50 >30	>0	>0
Freizone Datenträger in mm ( b ) Data carrier clear zone in mm	>200 >100	>200 >100	>100	>100
Schreibabstand in mm Write distance in mm	0-40 0-25	0-60 0-35	0-32	0-16
Leseabstand in mm Read distance in mm	0-40 0-25	0-60 0-35	0-32	0-16
Versatz in mm bei Abstand von	0 ±30 ±20 5 ±30 ±20 9 ±30 ±20 12 ±25 ±20 15 ±25 ±18 16 ±25 ±18 18 ±25 ±16 20 ±25 ±14 22 ±20 ±12 25 ±20 ±10 30 ±20 32 ±15 35 ±15 40 ±15	±35 ±25 ±35 ±25 ±35 ±25 ±35 ±25 ±35 ±25 ±35 ±25 ±35 ±25 ±35 ±25 ±35 ±22 ±35 ±22 ±35 ±22 ±35 ±20 ±35	±25 ±25 ±25 ±25 ±25 ±25 ±25 ±25 ±20 ±15 ±15	±24 ±24 ±20 ±14 ±4 ±4
Offset in mm at distance	43 45 50 52 60 65 70			



HF (13.56 MHz)

BIS M-401-045-001-07-S4

Order Code: BIS00LK

**BALLUFF**

**BIS M-401-\_\_**

	BIS M-132-03/L- HT	BIS M135-03/L- HT				
passende Datenträger Appropriate data carriers						
Abstand Datenträger zu Metall in mm ( a ) Data carrier distance to metal in mm	>50	>50				
Freizone Datenträger in mm ( b ) Data carrier clear zone in mm	>200	>200				
Schreibabstand in mm Write distance in mm	0-50	0-75				
Leseabstand in mm Read distance in mm	0-50	0-75				
Versatz in mm bei Abstand von	0 ±30	0 ±50				
	5 ±30	±50				
	10 ±30	±50				
	15 ±30	±50				
	20 ±30	±50				
	25 ±28	±50				
	30 ±28	±50				
	35 ±28	±50				
	40 ±28	±50				
	45 ±10	±45				
	50 ±10	±45				
	55	±45				
	60	±45				
	65	±35				
	70	±35				
	75	±35				
	80					
	85					
	90					
	95					
	100					

