

1) Sensing surface, 2) Data carrier, 3) Clear zone, 4) Clear zone surrounding, 5) Tightening torque



### Basic features

Antenna type	round
Approval/Conformity	CE UKCA cULus WEEE
EN 55011	Size 1, Cl. A
Principle of operation	Read/write device

### Display/Operation

Function indicator	COM field, LED yellow RF field, LED red Power (ON), LED green
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### Electrical connection

Connection	(RS422/power supply): M12x1- Male, 8-pin
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### Electrical data

Current consumption max. at 24 V DC	150 mA
Operating voltage $U_b$	10...30 VDC
Residual ripple max.	included

### Environmental conditions

Altitude max.	2000 m
Ambient temperature	-20...50 °C
Area of operation	Indoor
Contamination scale	2
Continuous shock load	yes
EN 60068-2-27, Shock	yes
EN 60068-2-32 Free fall	yes
EN 60068-2-6, Vibration	yes
IP rating	IP67
Relative humidity	0...90 %, non-condensing
Storage temperature	-20...70 °C

## Functional Characteristics

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

<b>Interface</b>	RS422
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## Material

<b>Housing material</b>	PC, With PU potting
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## Mechanical data

<b>Application weight</b>	66.00 g
<b>Dimension</b>	40 x 24 x 56 mm
<b>Installation</b>	metal-free (clear zone)

## Remarks

This device is intended to be supplied by a UL-listed or CSA-certified power supply unit with "Class 2" or LPS power source.

The devices must be installed permanently.

1. Determine a suitable mounting position.
2. Fasten the device with suitable mounting material.

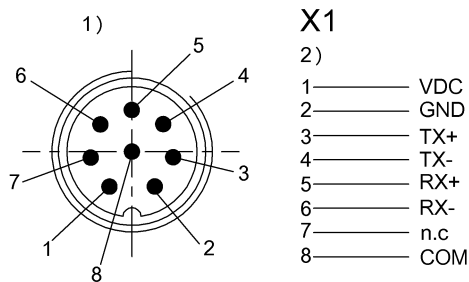
The device can be cleaned with a slightly damp cloth.

Regularly check the function of the device and all associated components through visual and functional tests.

- Shut down the device in the event of malfunctions.
- Secure the system against unauthorized use.
- Check fastening and tighten if necessary.

The product is maintenance-free.

## Connector Drawings



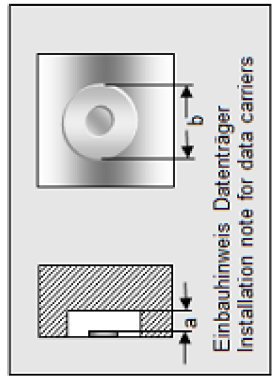
1) View towards connector

2) Male 8-pin/ Function

## Help Views

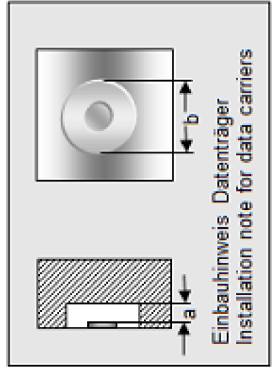
**BIS M-410-\_\_**

	BIS M-130-03/L	BIS M-130-07/L	BIS M-131-10/L	BIS M-132-03/L	BIS M-132-03/L-HT
passende Datenträger Appropriate data carriers					
Abstand Datenträger zu Metall in mm ( a ) Data carrier distance to metal in mm	>10	>10	>10	>25	>25
Freizone Datenträger in mm ( b ) Data carrier clear zone in mm	>60	>60	>60	>100	>100
Schreibabstand in mm Write distance in mm	0-17	0-12	0-5	0-48	0-40
Lesabstand in mm Read distance in mm	0-17	0-12	0-5	0-48	0-40
Versatz in mm bei Abstand von	0 ±15	±12	±10	±30	±25
	2 ±15	±12	±10	±30	±25
	4 ±15	±12	±7,5	±30	±25
	5 ±15	±12	±5	±30	±25
	10 ±14	±10		±30	±25
	12 ±12	±5		±25	±20
	15 ±12			±25	±20
	17 ±7			±25	±20
	20			±25	±20
	25			±25	±20
	30			±25	±20
	35			±20	±12
	40			±20	±12
	45			±12	
	48			±12	
	75				
	80				
	85				
	90				
	95				
	100				



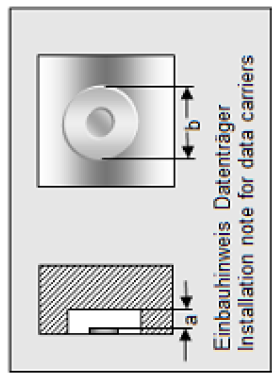
**BIS M-410-**

	BIS M-132-10/L	BIS M-132-10/L-HT	BIS M-133-02/A	BIS M-134-10/L	BIS M-134-10/L-HT
passende Datenträger Appropriate data carriers					
Abstand Datenträger zu Metall in mm ( a ) Data carrier distance to metal in mm	>25	>25	>25	>50	>50
Freizone Datenträger in mm ( b ) Data carrier clear zone in mm	>100	>100	>100	>150	>150
Schreibabstand in mm Write distance in mm	0-15	0-15	0-32	0-32	0-36
Lesabstand in mm Read distance in mm	0-15	0-15	0-32	0-32	0-36
Versatz in mm bei Abstand von	0 ±15	0 ±15	0 ±20	0 ±22	0 ±25
	5 ±15	5 ±15	5 ±20	5 ±22	5 ±25
	10 ±12	10 ±12	10 ±20	10 ±22	10 ±25
	15 ±8	15 ±8	15 ±16	15 ±20	15 ±25
	20	20	20	20	20
	25	25	25	25	25
	30	30	30	30	30
	32	32	32	32	32
	36	36	36	36	36
	40	40	40	40	40
	45	45	45	45	45
	50	50	50	50	50
	55	55	55	55	55
	60	60	60	60	60
	65	65	65	65	65
	68	68	68	68	68
	75	75	75	75	75
	80	80	80	80	80
	85	85	85	85	85
	90	90	90	90	90
	95	95	95	95	95



**BIS M-410-\_\_**

	BIS M-135-02/L	BIS M-135-03/L	BIS M-135-03/L- HT	BIS M-135-07/L	BIS M-135-07/L- HT
passende Datenträger Appropriate data carriers					
Abstand Datenträger zu Metall in mm ( a ) Data carrier distance to metal in mm	>50	>50	>50	>50	>50
Freizone Datenträger in mm ( b ) Data carrier clear zone in mm	>150	>150	>150	>150	>150
Schreibabstand in mm Write distance in mm	0-60	0-68	0-70	23-46	23-46
Leseabstand in mm Read distance in mm	0-60	0-68	0-70	23-46	23-46
Versatz in mm bei Abstand von	0 5 10 15 20 23 30 32 35 40 46 50 55 60	±35 ±40 ±40 ±40 ±40 ±40 ±32 ±32 ±32 ±32 ±32 ±24 ±24 ±16	±44 ±44 ±44 ±44 ±44 ±32 ±32 ±32 ±32 ±32 ±25 ±25	±24 ±24 ±18 ±18 ±18 ±10	±24 ±24 ±18 ±18 ±18 ±10
Offset in mm at distance	65 68 70 80 85 90 95	±15 ±15 ±15	±15 ±15 ±15		



## BIS M-410-\_\_

	BIS M-108-02/L								
passende Datenträger									
Appropriate data carriers									
Abstand Datenträger zu Metall in mm ( a )									
Data carrier distance to metal in mm									
Freizone Datenträger in mm ( b )									
Data carrier clear zone in mm									
Schreibabstand in mm									
Write distance in mm	0-40								
Leseabstand in mm									
Read distance in mm	0-40								
Versatz in mm bei Abstand von	0	±22							
	5	±22							
	10	±22							
	15	±22							
	20	±22							
	25	±20							
	30	±20							
	35	±20							
	40	±10							
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	80								
	85								
	90								
	95								
	100								

