

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



Basic features

Antenna type	round
Approval/Conformity	CE cULus FCC IC WEEE

Display/Operation

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

Connection	(RS232/TP OUT): M12x1-Male, 8-pin
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Electrical data

Current consumption max. at 24 V DC	50 mA
EN 300330-1	Power Class 5
Operating voltage U_b	19.2...26.4 VDC
Output current max.	200 mA
Residual ripple max.	included

Environmental conditions

Ambient temperature	0...70 °C
Continuous shock load	yes
EN 60068-2-27, Shock	yes
EN 60068-2-32 Free fall	yes
EN 60068-2-6, Vibration	yes
Protection degree	IP67
Storage temperature	-20...85 °C

Functional Characteristics

Supported data carrier types	DIN ISO 14443 DIN ISO 15693
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Functional safety

MTTF (40 °C)	191 a
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Material

Housing material	Brass, Nickel-plated brass nuts, nickel plated
Housing material, surface protection	nickel plated

Mechanical data

Application weight	100.00 g
Dimension	Ø 30 x 83 mm
Installation	metal-free (clear zone)
Size	M30x1.5

Output/Interface

Interface
Output TP

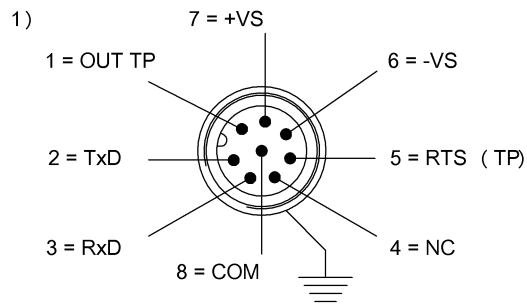
RS232
PNP

Remarks

For installation in metal: Observe clear zone.
Values are under rated conditions unless otherwise specified.
Use included nuts for installation.
OUT TP switches to +24V when there is a data carrier in the zone.
* Connection RTS (TP) enables TP display in program BISCOMRW.EXE.
For basic equipment: Accessories see www.balluff.com
For more information about MTTF and B10d see MTTF / B10d Certificate

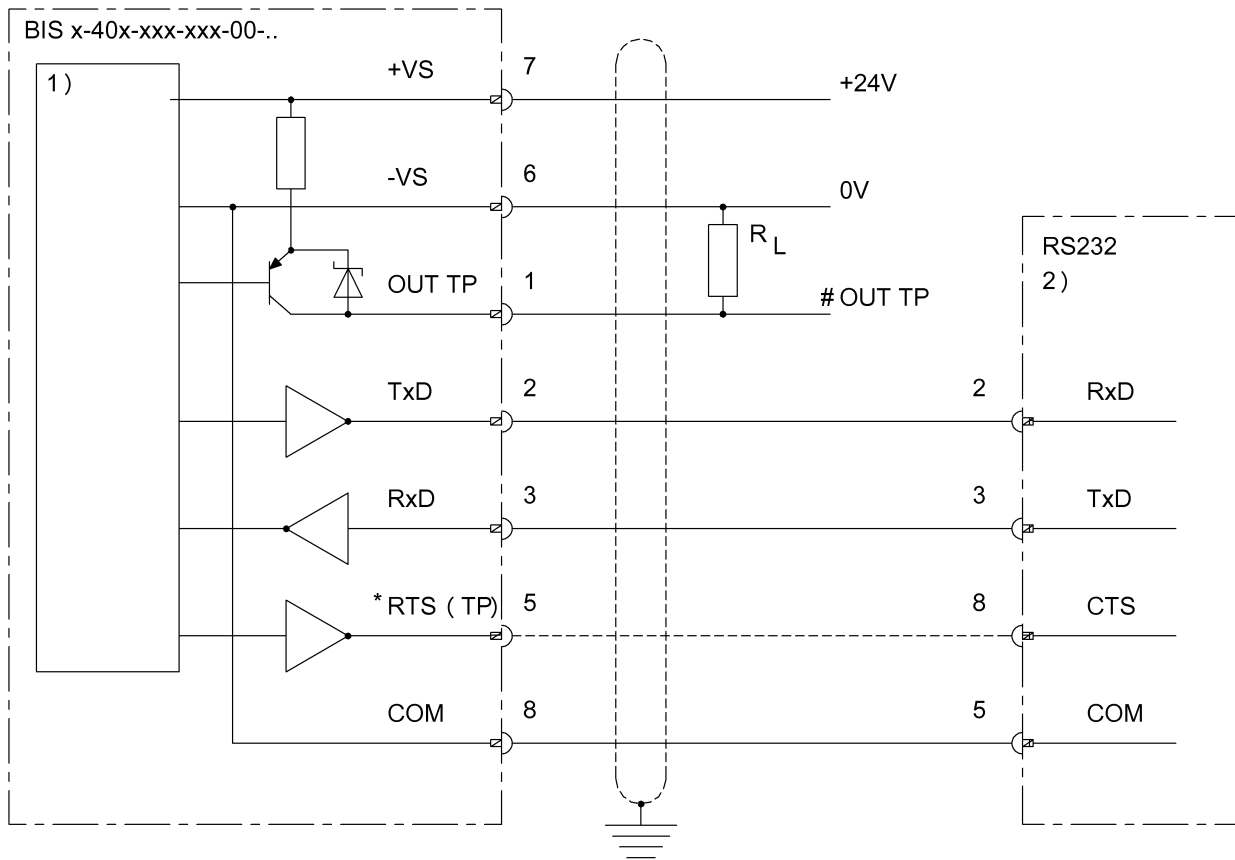
Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Connector Drawings



1) View towards connector

Wiring Diagrams

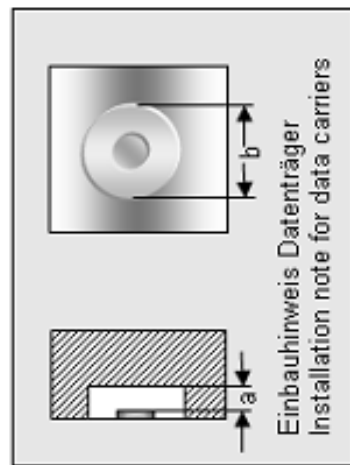


- 1) Internal circuit
- 2) 9-pin connection

Help Views

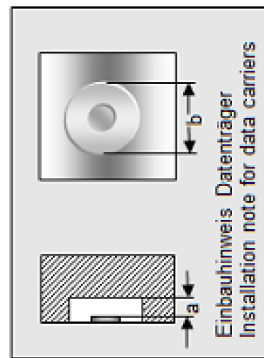
BIS M-400-XXX-001-__

	BIS M-101-01/L	BIS M-102-01/L	BIS M-105-01/A	BIS M-105-02/A	BIS M-108-02/L
passende Datenträger Appropriate data carriers					
Abstand Datenträger zu Metall in mm (a) Data carrier distance to metal in mm	>25 >10 >5	>50 >15 >10	>20 >5	>20 >5	>25 >0
Freizone Datenträger in mm (b) Data carrier clear zone in mm	>100 >60 >50	>150 >90 >70	>100 >100	>100 >100	>100 >0
Schreibabstand in mm Write distance in mm	0-20 0-15 0-12	0-28 0-20 0-12	0-7 0-6	0-11 0-7	0-28 0-16
Leseabstand in mm Read distance in mm	0-20 0-15 0-12	0-28 0-20 0-12	0-7 0-6	0-11 0-7	0-28 0-16
Versatz in mm bei Abstand von	0 ±14 1 ±10 ±6	0-20 ±15 ±6	±7 ±6	±9 ±6	±16 ±10
	5 ±14 ±10 ±6	±20 ±15 ±6	±7 ±6	±8 ±6	±16 ±10
	9 ±14 ±8 ±4	±20 ±15 ±3		±5	±14 ±8
	12 ±10 ±4 ±2	±20 ±13 ±2			±14 ±6
	15 ±10 ±2	±20 ±10			±14 ±6
	16 ±8	±18 ±3			±14 ±4
	18 ±6	±16			±14
	20 ±5	±15			±14
	22	±15			±12
	25	±10			±12
	30				
	32				
	35				
	40				
	43				
	45				
	50				
	52				
	60				
	65				
	70				



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	BIS M-110-02/L	BIS M-111-02/L	BIS M-112-02/L	BIS M-132-03/L-HT	BIS M-135-03/L-HT
passende Datenträger Appropriate data carriers					
Abstand Datenträger zu Metall in mm (a) Data carrier distance to metal in mm	>25 >10 >5	>25 >10 >5	>50 >15 >10	>25 >0	>50
Freizone Datenträger in mm (b) Data carrier clear zone in mm	>100 >60 >50	>100 >60 >50	>150 >90 >70	>100 >100	>150
Schreibabstand in mm Write distance in mm	0-20 0-15 0-8	0-28 0-18 0-10	0-38 0-25 0-15	0-30 0-8	0-42
Lesebestand in mm Read distance in mm	0-20 0-15 0-8	0-28 0-18 0-10	0-38 0-25 0-15	0-30 0-8	0-42
Versatz in mm bei Abstand von	0 ±12 ±8 ±6	±16 ±10 ±7	±22 ±16 ±13	±18 ±8	±30
	5 ±12 ±8 ±5	±16 ±10 ±7	±22 ±16 ±13	±18 ±8	±30
	7 ±10 ±6 ±4	±14 ±8 ±2	±22 ±14 ±10	±18 ±6	±30
	8 ±10 ±6 ±2	±14 ±8 ±2	±22 ±14 ±10	±18 ±3	±30
	9 ±10 ±6	±14 ±8 ±2	±22 ±14 ±10	±18	±30
	10 ±8 ±4	±14 ±7 ±1	±20 ±13 ±8	±18	±30
	12 ±8 ±4	±14 ±7	±20 ±13 ±8	±18	±28
	15 ±8 ±2	±14 ±6	±20 ±12 ±6	±18	±28
	16 ±5	±14 ±3	±20 ±10	±18	±28
	18 ±5	±14 ±2	±20 ±10	±18	±28
	20 ±5	±14	±20 ±8	±18	±28
	22	±12	±20 ±6	±16	±24
	25	±12	±20 ±4	±16	±24
	30		±16	±5	±24
	32		±10		±24
	35		±10		±24
	38		±5		±5
	42				±5
	45				
	50				
	55				



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passende Datenträger Appropriate data carriers	BIS M-107-03/L- H200	BIS M-140-02/A- XX	BIS M-142-02/A- XX	BIS M-143-02/A- XX	BIS M-144-02/A- XX
Abstand Datenträger zu Metall in mm (a) Data carrier distance to metal in mm	>25	>0	>0	>0	>0
Freizone Datenträger in mm (b) Data carrier clear zone in mm	>100	>100	>100	>100	>100
Schreibabstand in mm Write distance in mm	0-27	0-22	0-22	0-13	0-22
Leseabstand in mm Read distance in mm	0-27	0-22	0-22	0-13	0-22
Versatz in mm bei Abstand von	0 5 10 13 15 18 20 22 25 27	±16 ±10 ±10 ±7 ±5	±13 ±13 ±13 ±11 ±11 ±11 ±7 ±7	±13 ±10 ±10 ±9 ±5	±13 ±13 ±13 ±11 ±11 ±11 ±7 ±7
Offset in mm at distance	0 5 10 13 15 18 20 22 25 27 30 32 35 40 43 45 50 52 60 65 70	±16 ±10 ±10 ±7 ±5	±13 ±13 ±13 ±11 ±11 ±11 ±7 ±7	±13 ±10 ±10 ±9 ±5	±13 ±13 ±13 ±11 ±11 ±11 ±7 ±7

