

FERROIDENT

High-Performance – Also for Intralogistics

World's smallest Form Factor with the longest Range



more added value



“Balluff BIS Industrial RFID Systems: The highest quality in any environment”

Balluff Industrial RFID for

- Optimized production processes
- Reliable traceability
- Consistent error prevention
- 100% quality
- Reliable plagiarism protection

more added value

Absolute production reliability

Recalls due to quality defects are more than annoying. Not only to they cost money. They also result in significant image loss, which has implications beyond economic loss. Reliability is therefore the order of the day for any automated process. But accomplishing this is becoming ever more difficult due to increasingly complex production processes and a growing variety of different parts. Internal material flow is increasingly characterized by just-in-time cycles.

This is exactly where BIS M Industrial RFID systems come in. Without contact, BIS M tags ensure 100% production reliability, record the entire production process in all the batches, and make all the data traceable. Any time. Regardless of the carrier material and content. Not just in water, oil or dust. Also on metal. Industrial grade – in any environment. Errors are consistently avoided. They are immediately recognized and the affected part sent back, corrected or shunted out. Fully automatically. Because Industrial RFID BIS M tags control the very processes.





Balluff Industrial RFID – Also for intralogistics

Optimize your internal material flow by using Balluff Industrial RFID to link product and data flow to each other. To bring maximum transparency to your supply and production chain. You'll know exactly which materials are used when and where, what serial numbers were used and which machines were involved.

With Industrial RFID Balluff offers absolute security for your supply chain management. Use BIS M to prevent quality variance. And use this advantage against the competition.

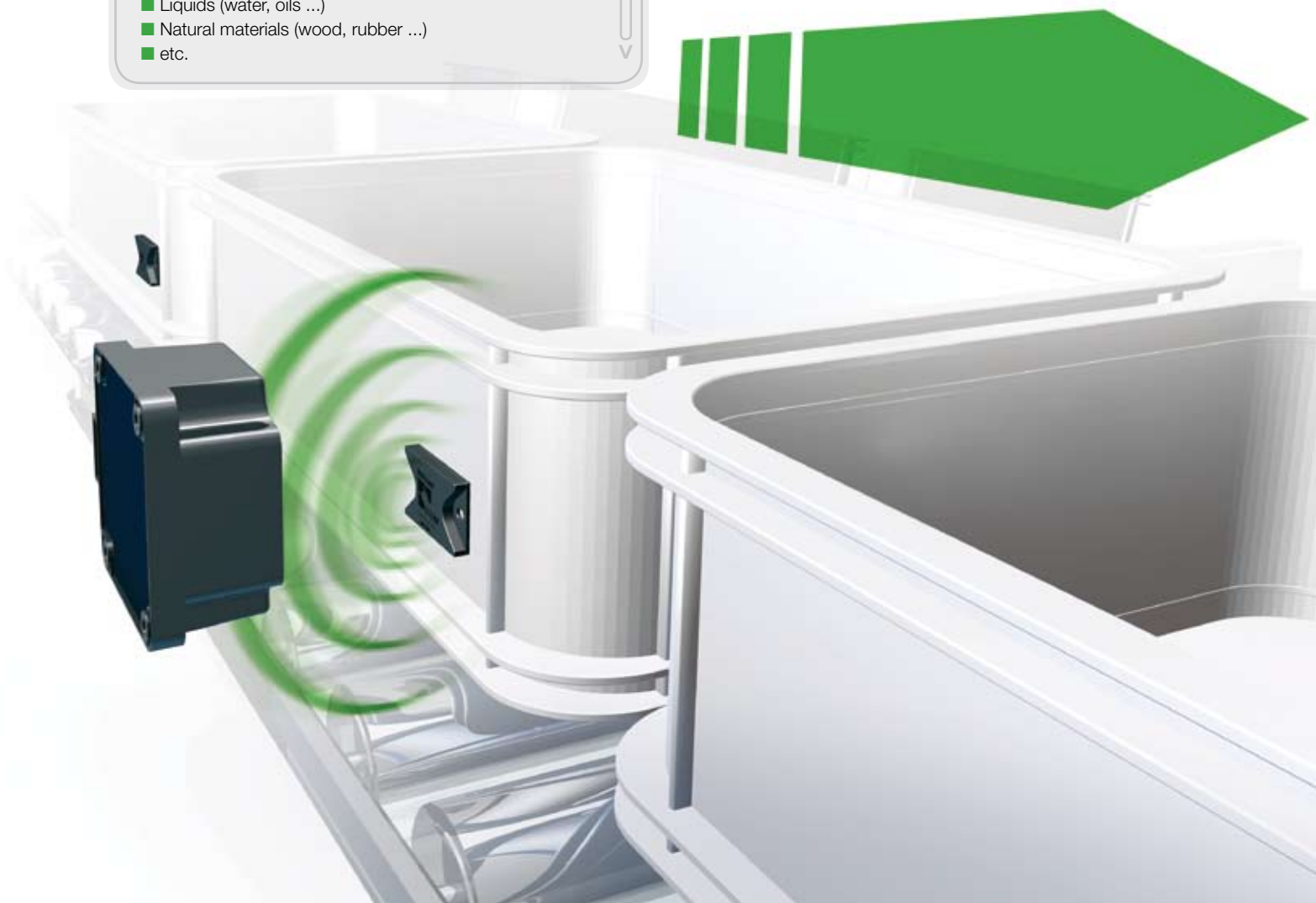
Balluff Industrial RFID

- Greatest transparency
- Optimized material flow
- An edge against the competition

Regardless of composition

Absolutely reliable, whether

- Metals (aluminum, stainless steel ...)
- Plastics (PVC, Teflon ...)
- Liquids (water, oils ...)
- Natural materials (wood, rubber ...)
- etc.



Industrial RFID Systems BIS M

Read/write heads



CE Available starting Fall 2008

Ordering code	BIS M-350-005-S115	
Dimensions	240×120×60 mm	
Housing material	PC Lexan 141R	
Antenna type	rod	
Weight	1200 g	
Mounting in steel	non-flush	
Working temperature	0...70 °C	
Storage temperature	-20...85 °C	
Degree of protection per IEC 60529	IP 65	
Connection to	Processor	
with connection cable	BIS Z-501-PU1-.../BIS Z-502-PU1-...	
Possible cable lengths	5, 10, 15, 20, 25, 50	
Appropriate data carrier	BIS M-150-02/A	BIS M-151-02/A
Clear zone for data carrier		
Read/write distance	0...150 mm	0...150 mm
Offset at distance	0 mm	
	10 mm	
	20 mm	
	30 mm	
	40 mm	
	52 mm	
	65 mm	

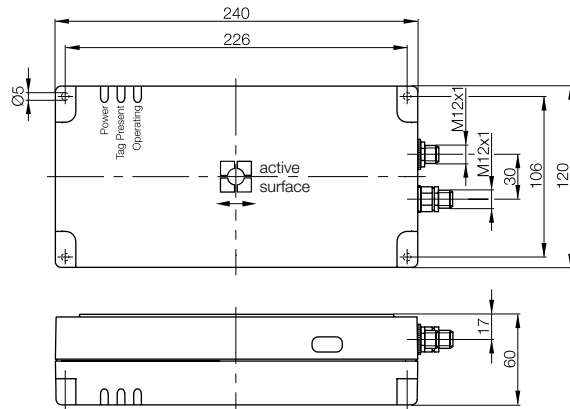
* Referenced to metal mounting surface 40×22 mm
 ** Referenced to metal mounting surface 200×200 mm

Absolute reliability – With BIS M Industrial RFID even directly on metal

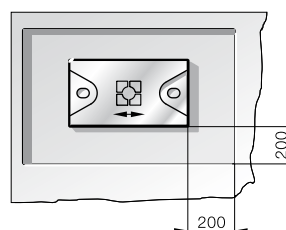
The little powerhouse with long range can be integrated into any controller system. Unlimited read/write cycles ensure flexible, fast communication. In any environment: in water, oil and dust. And now on metal as well. Our BIS M are absolutely reliable in metallic surroundings up to a distance of 150 mm. Even in dynamic applications. The non-contacting Balluff Industrial RFID data carriers function absolutely reliably – regardless of the carrier material and content.

Balluff Industrial RFID – now also on metal

- Non-contacting and rugged
- Small and powerful
- In any environment: water, oil, dust and metal
- Regardless of content and carrier material
- Generous read/write distance
- Unlimited programming cycles
- Flexible, fast communication



Clear zone dimensions for data carriers





BIS M-351-001-S115

80x84.5x40 mm

PBT and ASA

rod

250 g

non-flush

0...60 °C

-20...85 °C

IP 67

Processor

BIS Z-501-PU1-.../BIS Z-502-PU1-...

5, 10, 15, 20, 25, 50

BIS M-150-02/A

200 mm

0...52 mm *

0...65 mm **

±25 mm

±26 mm

±25 mm

±25 mm

±25 mm

±25 mm

±25 mm

±25 mm

±20 mm

±25 mm

±8 mm

±25 mm

±10 mm

BIS M-151-02/A

200 mm

0...52 mm *

0...65 mm **

±25 mm

±26 mm

±25 mm

±25 mm

±25 mm

±25 mm

±25 mm

±25 mm

±20 mm

±25 mm

±8 mm

±25 mm

±10 mm

BIS M-451-007-001-00-S115

80x84.5x40 mm

PBT and ASA

rod

250 g

non-flush

0...60 °C

-20...85 °C

IP 67

BKS-S115-PU-..., BKS-S116-PU-...

5, 10, 15, 20, 25, 50

BIS M-150-02/A

200 mm

0...52 mm *

0...65 mm **

±25 mm

±26 mm

±25 mm

±25 mm

±25 mm

±25 mm

±25 mm

±25 mm

±20 mm

±25 mm

±8 mm

±25 mm

±10 mm

BIS M-151-02/A

200 mm

0...52 mm *

0...65 mm **

±25 mm

±26 mm

±25 mm

±25 mm

±25 mm

±25 mm

±25 mm

±25 mm

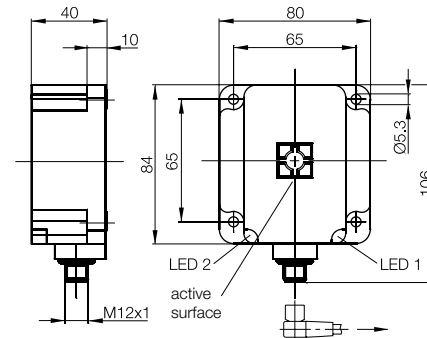
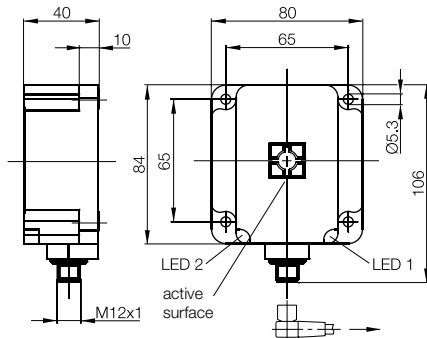
±20 mm

±25 mm

±8 mm

±25 mm

±10 mm



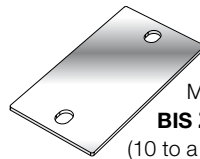
Smallest package – greatest range

The large memory capacity allows you to reliably read and record large quantities of data without having to stop pallets and containers. The 13.56 MHz system means the range is enormous for such a small package. And the standardized frequency range guarantees you universality as well as compatibility around the world.

Simply rely on our Industrial RFID expertise, our more than 20 years of development know-how. And then just decide where these rugged, powerful data carriers can ensure your reliable production and increase your productivity.



Ordering code	
Dimension	
Housing material	
Antenna type	
Weight	
Memory capacity read-only	
Memory capacity read/write	
Memory organization	
Programming cycles	
Data retention time	
Read time	for 16 bytes for 8-byte User-ID
Write time	for 16 bytes
Mounting	
Storage temperature	
Working temperature	
Ambient temperature range	



Metal mounting plate 40x22 mm
BIS Z-MP-001 Please order separately!
(10 to a package)

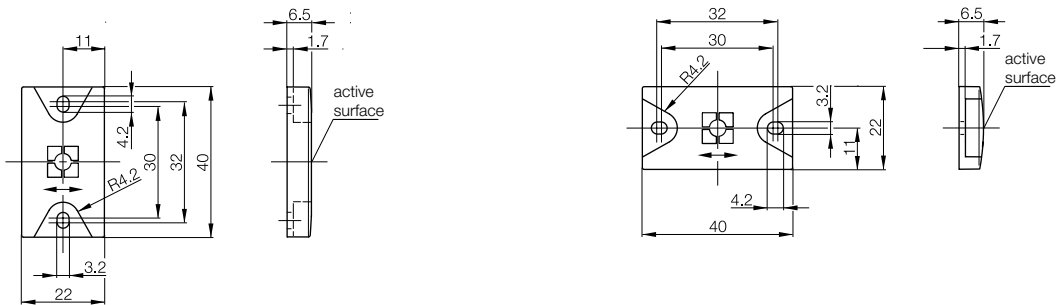


BIS M-150-02/A




36.5×20×6 mm
 PPS-GF40 with PU casting material
 rod
 7.2 g
 8 bytes
 2 Kbytes
 250×8 bytes
 ≥ 10,000,000,000
 ≥ 10 years at 55 °C
 0.03 s
 0.02 s
 0.06 s
 on steel
 -25...+85 °C
 -25...+70 °C
 -25...+130 °C (1000 h)

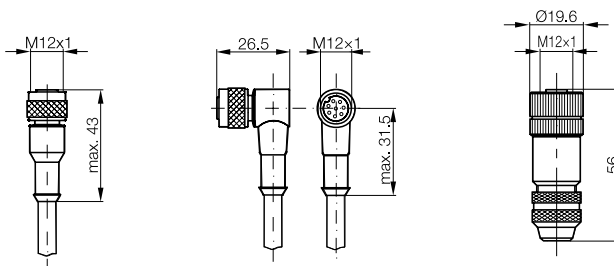
BIS M-151-02/A

36.5×20×6 mm
 PPS-GF40 with PU casting material
 rod
 7.2 g
 8 bytes
 2 Kbytes
 250×8 bytes
 ≥ 10,000,000,000
 ≥ 10 years at 55 °C
 0.03 s
 0.02 s
 0.06 s
 on steel
 -25...+85 °C
 -25...+70 °C
 -25...+130 °C (1000 h)





Connector	BKS-S115	BKS-S116	BKS-S115	
Type	8-pin, straight female	8-pin, right-angle, female	8-pin, female	
Use	BIS M-4_ _	BIS M-4_ _	BIS M-4_ _	
Ordering code	BKS-S115-PU- _ _	BKS-S116-PU- _ _	BKS-S115-00	
Connector type	M12	M12	M12	
Supply voltage U_b	36 V DC	36 V DC	60 V DC	
Ambient temperature range T_a	-25...90 °C	-25...90 °C	-40...85 °C	
Degree of protection per IEC 60529	IP 67	IP 67	IP 67 (when attached)	
Connection			Screw terminals max. 0.75 mm ²	
Cable	Molded PUR	Molded PUR	Unassembled	
No. of wires × conductor cross section	8×0.25 mm ²	8×0.25 mm ²		
Cable diameter			6...8 mm	
Accessories included				
View of female side				

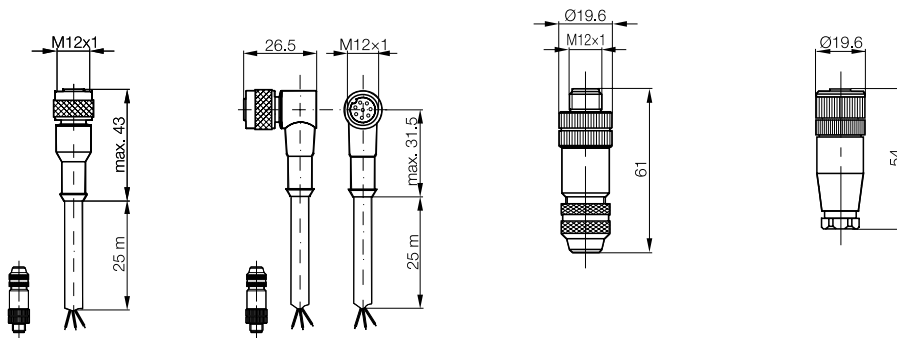


Please append cable length to ordering code!

- 02 = Length 2 m
- 05 = Length 5 m
- 10 = Length 10 m
- 15 = Length 15 m
- 20 = Length 20 m
- 25 = Length 25 m



BIS Z-501	BIS Z-502	BKS-S117-00	BKS-S 79-00	
8-pin, female	8-pin, female	8-pin, male	5-pin, female	
for read/write head	for read/write head	for connecting read/write head to processor	for connecting BIS M-350-... to supply voltage	
BIS Z-501-PU1-__	BIS Z-502-PU1-__	BKS-S117-00	BKS-S 79-00	
M12	M12	M12	M12	
36 V DC	36 V DC	36 V DC	36 V DC	
-25...90 °C	-25...90 °C	-40...85 °C	-40...85 °C	
IP 67	IP 67	IP 67	IP 67	
		Screw terminals max. 0.75 mm ²	Screw terminals max. 0.75 mm ²	
One side molded-on PUR, other side pigtail	One side molded-on PUR, other side pigtail	for user assembly	for user assembly	
8x0.25 mm ²	8x0.25 mm ²			
		4...8 mm	4...8 mm	
BKS-S117-00	BKS-S117-00			



Cable can be trailed and may also be shortened to the required length. For fixed routing the minimum bending radius is 16 mm at an ambient temperature of -40...+85 °C. When cable is trailed the min. bending radius is 80 mm at an ambient temperature of -25...+85 °C.

Please append cable length to ordering code!

- 05 = Length 5 m
- 10 = Length 10 m
- 15 = Length 15 m
- 25 = Length 25 m



Processor versions		BIS M-60_ _			BIS M407-...	
		BIS M-60_1	BIS M-60_2	BIS M-60_3	BIS M-6026	BIS M407-...
RS 232 RS 485 RS 422	Processor versions					
	INTERBUS					
	PROFIBUS					
DeviceNet	ABS plastic housing	■	■	■	■	
	Metal housing	■	■	■	■	
Ethernet	InterBus	■				
	PROFIBUS		■			
Ethernet	DeviceNet			■		
	Ethernet IP				■	
	Ethernet TCP/IP					■

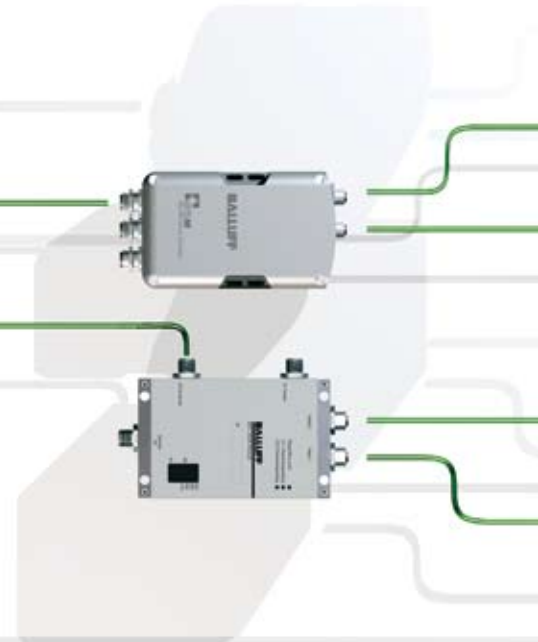
Interface variants

Processor

INTERBUS, PROFIBUS-DP, DeviceNet™

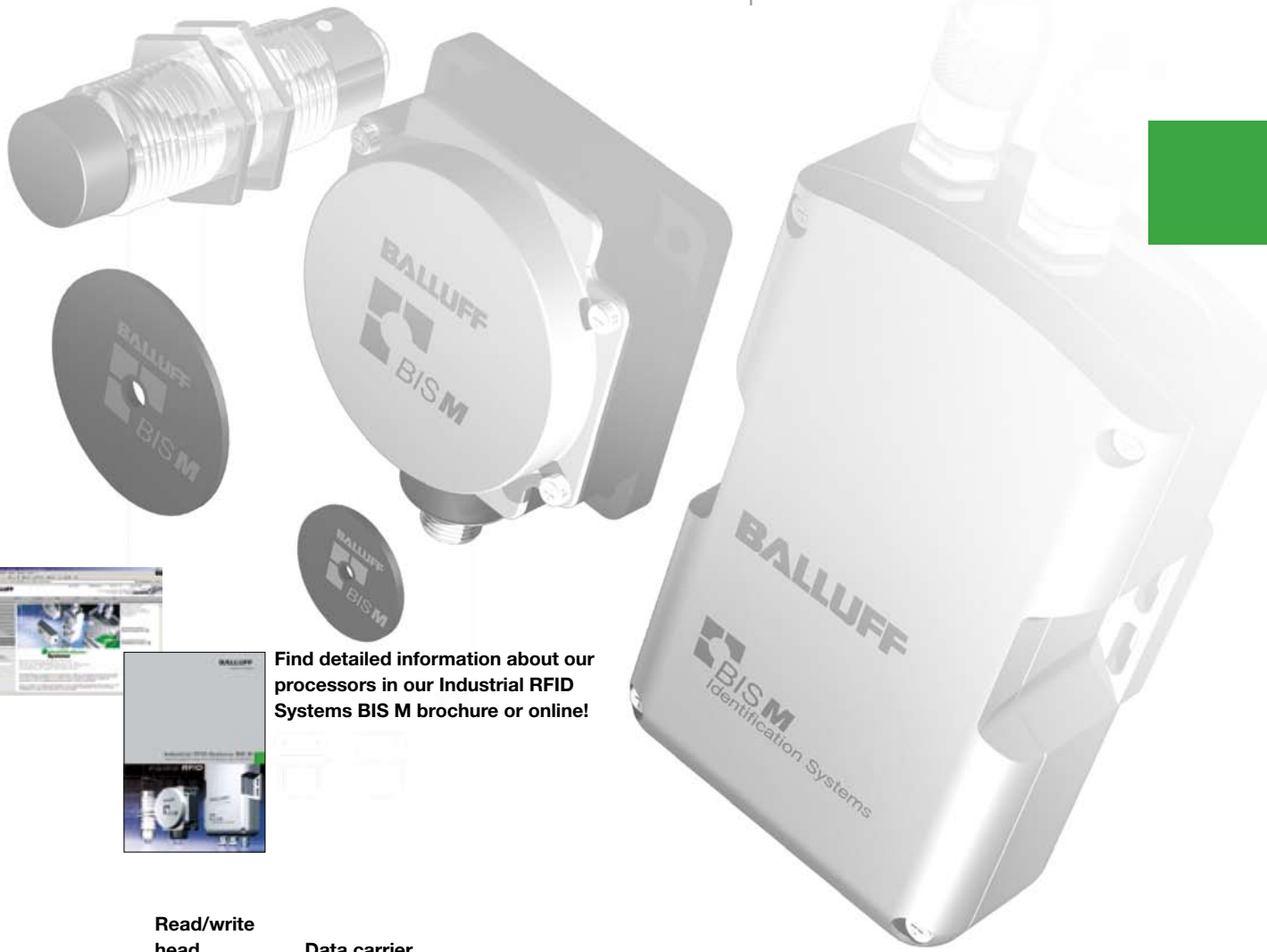
INTERBUS, PROFIBUS-DP, DeviceNet™

Serial RS232



Industrial RFID Systems BIS M

Overview of processors

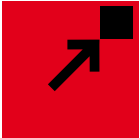


Find detailed information about our processors in our Industrial RFID Systems BIS M brochure or online!

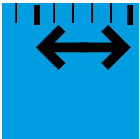
Read/write head

Data carrier

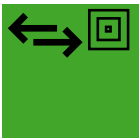




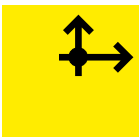
Object Detection



Linear Position Sensing



Industrial Identification



Industrial Networking and Connectivity



Mechanical Accessories



Learn more about the broad product range of our BIS Industrial RFID Systems in our brochures, on CD-ROM, DVD-ROM or online!



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