

# BALLUFF

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## BIS V Industrial RFID

The new generation for industry and logistics





# BIS V Industrial RFID System

The new generation for industry and logistics

## A new generation system for more flexible RFID:

### Combine up to four low and high frequency read/write heads with I/O in one device.

The BIS V Radio Frequency Identification (RFID) system is founded on a new generation of RFID processors that maximize your flexibility by providing a single device for both low frequency 125Khz and high frequency 13.56Mhz read/write heads with an IO-Link master port. Combining up to four heads on either frequency with local analog, valve manifold or I/O access/control provides a solution you can apply to many types of RFID applications. This can save cost and time using a single processor platform across your application installation base. The BIS V system also allows you to draw on a single processor family with a wide array of read/write head and RFID tag options for both manufacturing and logistics solutions.

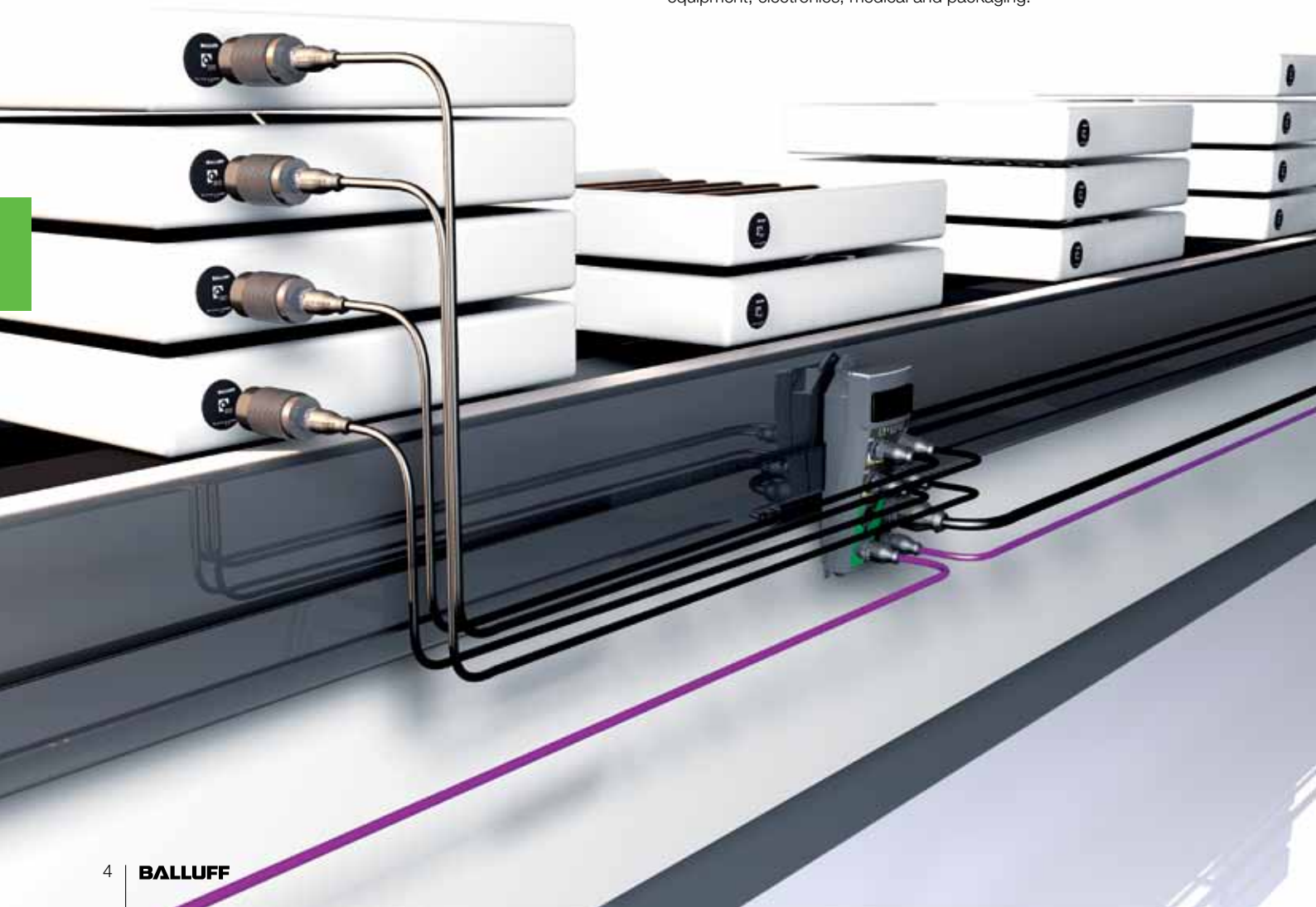
The BIS V RFID system offers a higher level of performance than other systems to solve today's industrial applications. Designed to maximize performance while improving usability out on the line, the BIS V processor provides a functional display and LED's making status and setup easier. And a USB service interface makes connection for setup to today's PC's simple. The BIS V offers these additional functions:

- Four asynchronous 125Khz and 13.56Mhz read/write antenna channels.
- LCD display with control buttons for setting and displaying the Profibus address and data carrier/tags UID.
- An integrated IO-Link master port for connecting discrete or analog I/O, or valve manifolds.
- Intelligent power plug option for saving parameters on the device.
- Industrial IP rated metal housing for any application environment.
- Flexible mounting options for hard-point or DIN rail.





Typical application combining multiple read/write heads with local I/O include tracking and traceability of material or parts in assembly line WIP applications and inter-logistics in automotive, industrial equipment, electronics, medical and packaging.

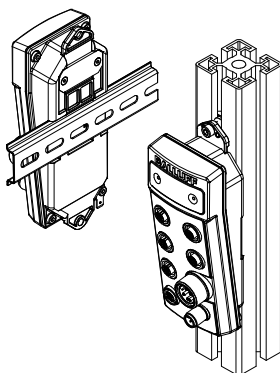


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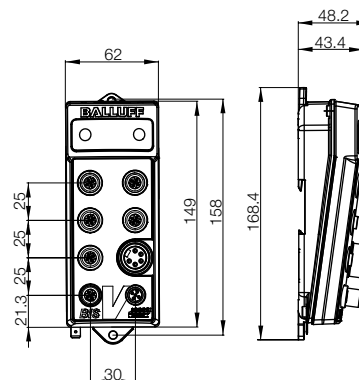
Description	BIS V RFID unit
Profibus	<b>Ordering code</b> <b>BIS00T3</b>
Part number	BIS V-6102-019-C001
Power supply	24 V DC $\pm 10\%$ LPS Class 2
Residual ripple	$\leq 10\%$
Current	$\leq 2\text{ A}$
Ambient temperature $T_a$	0...+60 °C
Degree of protection as per IEC 60529	IP 65
Housing material	Cast zinc
Weight	800 g
Head connection H1 - H4	M12 socket, 5-pin, A-coded
Power connection	7/8" plug, 5-pin
Application interface	IO-Link 1.1, USB 2.0
Application with read/write heads	BIS VM-3... and BIS VL-3...



**EtherCat, EtherNet/IP, and CC link** will be available as additional interfaces in the second half of 2012 and in 2013.

The compact EMC-protected metal housing with small dimensions (170x60x40 mm) is well integrated and simple to mount. In control cabinets or in the field up to IP 65, on a DIN rail, or on a solid mount.

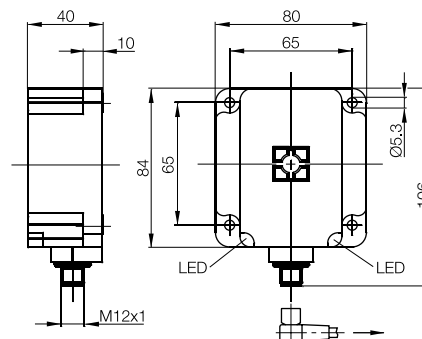
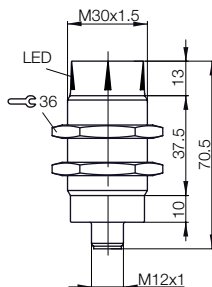
The BIS V industrial RFID system was developed and qualified according to the principles of GAMP® 5. You can obtain more detailed information upon request at [www.balluff.com](http://www.balluff.com)





Description	HF read/write head BIS VM	HF read/write head BIS VM	HF read/write head BIS VM	
Dimensions	<b>M30x1.5</b>	<b>80x80x40 mm</b>	<b>80x80x40 mm</b>	
Mounting in steel	non-flush	non-flush	non-flush	
Antenna type	round	round	Rod	
Ordering code	<b>BIS00RF</b>	<b>BIS00T0</b>	<b>BIS00T2</b>	
Part number	BIS VM-300-001-S4	BIS VM-301-001-S4	BIS VM-351-001-S4	
Power supply	≤ 150 mA	≤ 150 mA	≤ 150 mA	
Power supply	18...30 V DC	18...30 V DC	18...30 V DC	
Residual ripple	≤ 1.3 V <sub>SS</sub>	≤ 1.3 V <sub>SS</sub>	≤ 1.3 V <sub>SS</sub>	
Ambient temperature T <sub>a</sub>	-25...+55 °C	-25...+55 °C	-25...+55 °C	
Degree of protection as per IEC 60529	IP 67 (with connector)	IP 67 (with connector)	IP 67 (with connector)	
Function indicator	yes	yes	yes	
Housing material	Nickel-plated CuZn (brass)	PBT	PBT	
Weight	100 g	190 g	360 g	
Connection	M12 connector, 4-pin	M12 connector, 4-pin	M12 connector, 4-pin	

Refer to the corresponding write/read distance from the Industrial Identification catalog, Chapter BIS M (BIS VM-300... corresponds to BIS M-300...).



Mounting clamp included with the remote head amps.



**Please order matching cables separately.**

(Unshielded cable can be used only for lengths up to 3 m. Cable lengths over 3 m have to be shielded.)

Plug side	Socket side	Cable material	Color	BCC039H	BCC039R	BCC03A8	BCC03AJ	BCC039J	BCC039T	BCC03A9	BCC03AK	BCC039K	BCC039U	BCC03AA	BCC03AL	BCC039L	BCC039W	BCC03AC	BCC03AM	BCC039M	BCC039Y	BCC03AE	BCC03AN
				0.3 m	0.6 m	1 m	1.5 m	2 m															
straight	straight	PUR	black																				
straight	angled	PUR	black																				
angled	straight	PUR	black																				
angled	angled	PUR	black																				



# BIS V Industrial RFID System

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HF read/write head BIS VM

**25x50x10 mm**

non-flush

round

**BIS00T9**

BIS VM-305-001-S4

≤ 150 mA

18...30 V DC

≤ 1.3 V<sub>SS</sub>

-25...+55 °C

IP 67 (with connector)

yes

AlMgSi 0.5/ABS-GF16

200 g

M12 connector, 4-pin

HF read/write head BIS VM

**M12x1**

non-flush

round

**BIS00T7**

BIS VM-306-001-S4

≤ 150 mA

18...30 V DC

≤ 1.3 V<sub>SS</sub>

-25...+55 °C

IP 67 (with connector)

yes

AlMgSi 0.5/nickel-plated CuZn

190 g

M12 connector, 4-pin

HF read/write head BIS VM

**M18x1**

non-flush

round

**BIS00T8**

BIS VM-307-001-S4

≤ 150 mA

18...30 V DC

≤ 1.3 V<sub>SS</sub>

-25...+55 °C

IP 67 (with connector)

yes

AlMgSi 0.5/nickel-plated CuZn

220 g

M12 connector, 4-pin

HF read/write head BIS VM

**25x50x10 mm**

non-flush

Rod

**BIS00T6**

BIS VM-352-001-S4

≤ 150 mA

18...30 V DC

≤ 1.3 V<sub>SS</sub>

-25...+55 °C

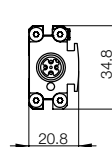
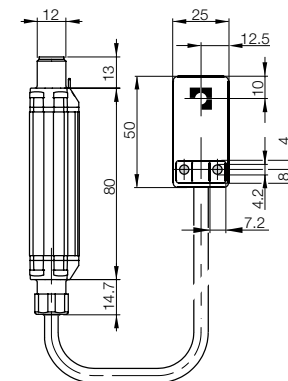
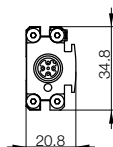
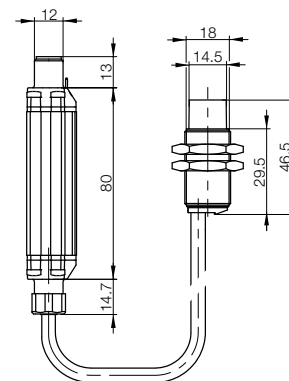
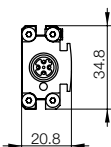
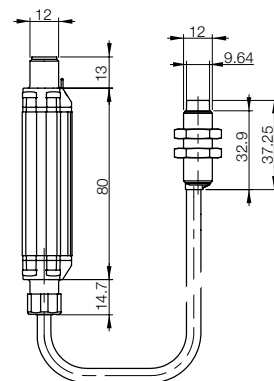
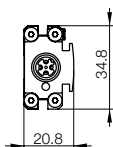
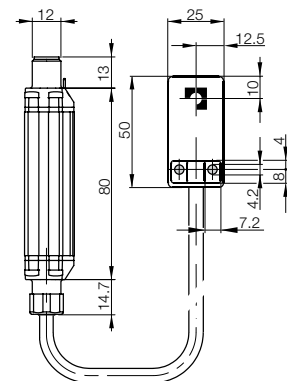
IP 67 (with connector)

yes

AlMgSi 0.5/ABS-GF16

370 g

M12 connector, 4-pin



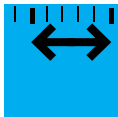
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## Object Detection

Inductive sensors, cylinder sensors, magnetic field sensors capacitive sensors, ultrasonic sensors, photoelectric sensors, fiber optic devices, fiber optics, angle sensors, through-beam fork sensors, optical window sensors, light grids, contrast sensors, luminescence sensors, color sensors, mechanical and inductive single and multiple position switches



## Linear Position and Measurement

Micropulse® transducers, magnetic linear encoder system, inductive displacement system, inductive distance sensors, magnetoinductive distance sensors, capacitive distance sensors, photoelectric distance sensors, ultrasonic sensors



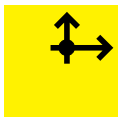
## Fluid Detection

Pressure sensors, capacitive sensors for level detection



## Industrial Identification

Industrial RFID systems, vision sensors



## Networking and Connectivity

Connectors and connection cables, valve connectors, passive splitter boxes, active splitter boxes, IO-Link, bus systems (Profibus, Profinet, CC-Link, DeviceNet, EtherNet), inductive couplers, power supplies, electrical devices



## Accessories

Brackets and mountings, assembly system BMS



**www.balluff-usa.com**

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