

Bus module MBV

The robust units with IP67 protection are especially suited for harsh environments. No additional housings.

Mounting

The units can be directly mounted on flat surface of machines next to sensors and actuators.

Plug-in connection technology

The use of M12 round plug connectors in the I/O connection area offers a quick and failure free installation.

Additional plug-in connections make it easy to change modules without completely new wiring.

Diagnostics

The extensive use of LEDs on the module or over the field bus to the master facilitates commissioning of the system and fault location.

Overload protection

All outputs and sensor supplies are short-circuit and overload protected.

Galvanic separation

All inputs and outputs are electrically isolated from the field bus. The separate voltage connection from the bus interface and the I/O sector, enables an alarm output to be available.

Labelling

The large exchangeable label strip for the signals and the module can be labelled manually, or with a printer or plotter.

Inputs / Outputs

The outputs and sensor supplies are short-circuit and overload protected. Having inputs and outputs in the same module makes the project layout more flexible. A fuse, which is accessible through the voltage supply terminal box, protects the module electronics from incorrect polarity connection.

Open bus system

Murrelektronik supports you with units (MBV) for Profibus-DP or Interbus as a free vendor.

Certification

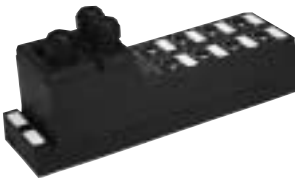
All units are certified for respective bus system. The modules also work with modules from other bus module manufactures.



MBV-P

- DI8
- DI16
- DO8/2 A
- DI8 DO4/2 A
- DO16/1 A

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MBV-I

- DI8
- DI16
- DO8/2 A
- DI8 DO4/2 A

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Bus module MBV
Profibus-DP

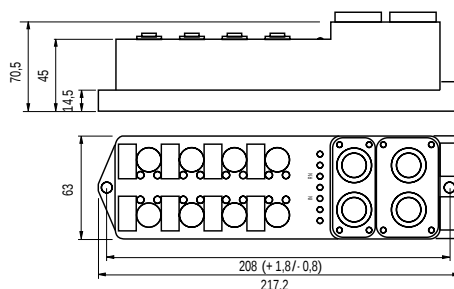
Input module

IP67 Protection

MBV-P



Ordering data		Art.-No.	Art.-No.	Art.-No.
8 inputs		55450	¹⁾ 55480	on request
16 inputs		55453	¹⁾ 55483	55454
General data				
Temperature range		0...+55 °C		-20...+55 °C
Mounting method		2 holes for screw fixing		
Dimensions H x W x D		217,5 x 63 x 70,5 mm		
Technical data	Field bus			
Supply		24 V DC (18...30,2 V), to EN 61131-2, < 100 mA		
Type		Profibus-DP - Slave		
Transfer protocol		Profibus-DP to EN 50170		
Modes		Freeze-Mode is supported		
Transfer speed		up to 12 MBit/s		up to 6 MBit/s
Addressing		BCD rotary switch, 3...99		
Technical data	Inputs			
Type		for 3-wire sensors or mechanical switches, p-switching, IEC 1131-2 conform		
Supply		24 V DC (18...30,2 V), to EN 61131-2, < 1,6 A; overload protected		
Status indicator		one LED per output		
Diagnostics				
Field bus		RUN- LED		
Under voltage		LED and alarm to the Master		
Short-circuit output		LED and alarm to the Master		
Dimensions drawing				



Accessories		Art.-No.
PG 9 compression gland	Set: 2 pieces	polyamide black 55469
PG 9 compression gland	Set: 2 pieces	nickel plated brass 55459
PG 9 cap	Set: 2 pieces	polyamide black 55458
M12 blind plug	Set: 4 pieces	55468
Handbook German		Disk 3,5" 55498
GSD/Type data		Disk 3,5" 55246
Profibus cable		per meter (1m) 55770
Notes		

PG glands are not supplied. Configuration see page 2.4.9
¹⁾ Different schematic for "VV"

Robust I/O module (IP67)



Bus module MBV
Profibus-DP

Output module

IP67 Protection

MBV-P



Ordering data	Art.-No.	Art.-No.	Art.-No.
8 digital 2 A outputs	55451	¹⁾ 55481	on request

General data		
Temperature range	0...+55 °C	-20...+55 °C

Mounting method	2 holes for screw fixing
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Dimensions	H x W x D	217,5 x 63 x 70,5 mm
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Technical data	Field bus
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Supply	24 V DC (18...30,2 V), to EN 61131-2, < 100 mA
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Type	Profibus-DP - Slave
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Transfer protocol	Profibus-DP to DIN EN 50170
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Modes	Sync-Mode are supported
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Transfer speed	up to 12 MBit/s	up to 6 MBit/s
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Addressing	BCD rotary switch, 3...99
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Technical data	Outputs
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Supply	24 V DC (18...30,2 V), to EN 61131-2, $I_{\Sigma} \leq 16$ A
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Switching current per output	2 A, short-circuit and overload protected
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Filament lamp load max.	10 W
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Maximum switching frequency	resistive load: 100 Hz; inductive load: 1...4 Hz (dependent on current load per output)
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Status indicator	one LED per output
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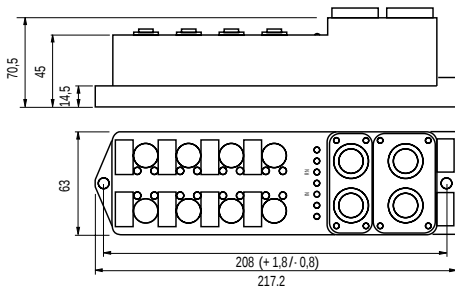
Diagnostics

Field bus	RUN-LED
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Under voltage	LED and alarm to the Master
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Short-circuit output	LED and alarm to the Master, every channel individual
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Dimensions drawing



Accessories	Art.-No.
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PG 9 compression gland	Set: 2 pieces	polyamide black	55469
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PG 9 compression gland	Set: 2 pieces	nickel plated brass	55459
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PG 9 cap	Set: 2 pieces	polyamide black	55458
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M12 blind plug	Set: 4 pieces		55468
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Handbook German		disk 3,5"	55498
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GSD/Type data		disk 3,5"	55246
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Profibus cable		per meter (1m)	55770
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Notes

PG glands are not supplied. Configuration see page 2.4.9

¹⁾ Different schematic for "VW"

Robust I/O module (IP67)

Bus module MBV
Profibus-DP

Input / output modules

IP67 Protection

MBV-P



Ordering data		Art.-No.	Art.-No.	Art.-No.
8 digital inputs, 4 digital 2 A outputs		55452	¹⁾ 55482	on request
General data				
Temperature range		0...+55 °C		-20...+55 °C
Mounting method		2 holes for screw fixing		
Dimensions H x W x D		217,5 x 63 x 70,5 mm		
Technical data	Field bus			
Supply		24 V DC (18...30,2 V), to EN 61131-2, < 100 mA		
Type		Profibus-DP - Slave		
Transfer protocol		Profibus-DP to DIN EN 50170		
Modes		Sync- and Freeze-Mode is supported		
Transfer speed		up to 12 MBit/s		up to 6 MBit/s
Addressing		BCD rotary switch, 3...99		
Technical data	Inputs			
Type		for 3-wire sensors or mechanical switches, p-switching, IEC 1131-2 compatible		
Supply		24 V DC (18...30,2 V), to EN 61131-2, < 1,6 A, overload protected		
Status indicator		one LED per output		
Technical data	Outputs			
Supply		24 V DC (18...30,2 V), to EN 61131-2, $I_{\Sigma} \leq 8$ A		
Switching current per output		2 A, short-circuit and overload protected		
Filament lamp load max.		10 W		
Maximum switching frequency		resistive load: 100 Hz; inductive load: 1...4 Hz (dependent on current load per output)		
Status indicator		one LED per output		
Diagnostics				
Field bus		RUN- LED		
Under voltage		LED and alarm to the Master		
Short-circuit output		LED and alarm to the Master, every channel individual		
Dimensions drawing				
Accessories				Art.-No.
PG 9 compression gland	Set: 2 pieces	polyamide black		55469
PG 9 compression gland	Set: 2 pieces	nickel plated brass		55459
PG 9 cap	Set: 2 pieces	polyamide black		55458
M12 blind plug	Set: 4 pieces			55468
Handbook German		disk 3,5"		55498
GSD/Type data		disk 3,5"		55246
Profibus cable		per meter (1m)		55770
Notes				
		PG glands are not supplied. Configuration see page 2.4.9		
		¹⁾ Different schematic for "VV"		

Robust I/O module (IP67)



Bus module MBV
Profibus-DP

Output module

IP67 Protection

MBV-P



Ordering data		Art.-No.
16 digital 1 A outputs		55489
General data		
Temperature range	0...+55 °C	
Mounting method	2 holes for screw fixing	
Dimensions	H x W x D	217,5 x 63 x 70,5 mm
Technical data		
Field bus		
Supply	24 V DC (18...30,2 V), to EN 61131-2, < 100 mA	
Type	Profibus-DP - Slave	
Transfer protocol	Profibus-DP to DIN EN 50170	
Modes	Sync-Mode are supported	
Transfer speed	up to 12 MBit/s	
Addressing	BCD rotary switch, 3...99	
Outputs		
Supply	24 V DC (18...30,2 V), to EN 61131-2, $I_{\Sigma} \leq 10$ A	
Switching current per output	1 A, short-circuit and overload protected	
Filament lamp load max.	2 W	
Maximum switching frequency	resistive load: 100 Hz; inductive load: 1...4 Hz (dependent on current load per output)	
Status indicator	one LED per output	
Diagnostics		
Field bus	RUN-LED	
Under voltage	LED and alarm to the Master	
Short-circuit output	LED and alarm to the Master, every channel individual	
Dimensions drawing		
Accessories		Art.-No.
PG 9 compression gland	Set: 2 pieces	polyamide black 55469
PG 9 compression gland	Set: 2 pieces	nickel plated brass 55459
PG 9 cap	Set: 2 pieces	polyamide black 55458
M12 blind plug	Set: 4 pieces	55468
Handbook German		disk 3,5" 55498
GSD/Type data		disk 3,5" 55246
Profibus cable		per meter (1m) 55770
Notes		
		PG glands are not supplied. Configuration see page 2.4.9

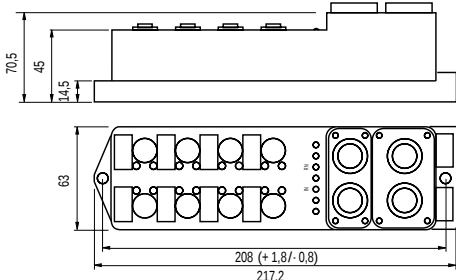
Robust I/O module (IP67)

Bus module MBV
INTERBUS

Input module

MBV-I



Ordering data		Art.-No.
8 digital inputs		55460
16 digital inputs		55463
Technical data	Module	
Temperature range	0...+55 °C (-20...+55 °C on request)	
Mounting method	2 holes for screw fixing	
Dimensions	H x W x D	217,5 x 63 x 70,5 mm
Technical data	Field bus	
Supply	24 V DC (18...30,2 V), to EN 61131-2, < 100 mA	
Type	remote bus / installations remote bus participants (Slave)	
Transfer protocol	INTERBUS to DIN EN 50254	
Modes	Freeze-Mode is supported	
Transfer speed	500 kBit/s	
Technical data	Inputs	
Type	for 3-wire sensors or mechanical switches,p-switching, IEC 1131-2 compatible	
Supply	24 V DC (18...30,2 V), to EN 61131-2, < 1,6 A, overload protected	
Status indicator	one LED per output	
Diagnostics		
Field bus	BA-, RD-, RC-LEDs	
Under voltage	LED and alarm to the Master	
Short-circuit output	LED and alarm to the Master	
Dimensions drawing		
		
Accessories		Art.-No.
PG 9 compression gland	Set: 2 pieces	polyamide black 55469
PG 9 cap	Set: 2 pieces	polyamide black 55458
M12 blind plug	Set: 4 pieces	55468
Handbook German		55497
INTERBUS-Remote bus cable	per meter (1m)	55771
INTERBUS-Installation remote bus cable	per meter (1m)	55772
Notes		
PG glands are not supplied. Configuration see page 2.4.9		

Robust I/O module (IP67)



Bus module MBV
INTERBUS

Output module

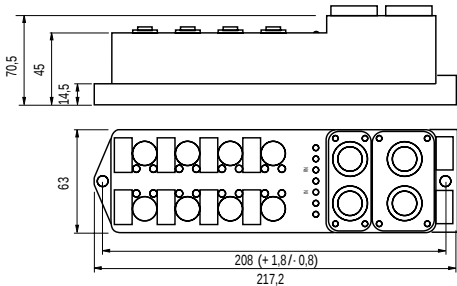
IP67 Protection

MBV-I



Ordering data	Art.-No.
8 digital 2 A outputs	55461

Technical data	Module
Temperature range	0...+55 °C (-20...+55 °C on request)
Mounting method	2 holes for screw fixing
Dimensions	H x W x D
	217,5 x 63 x 70,5 mm
Technical data	Field bus
Supply	24 V DC (18...30,2 V), to EN 61131-2, < 100 mA
Type	remote bus / installation remote bus participants (Slave)
Transfer protocol	INTERBUS to DIN EN 50254
Modes	Sync-Mode are supported
Transfer speed	500 kBit/s
Technical data	Outputs
Supply	24 V DC (18...30,2 V), to EN 61131-2, $I_{\Sigma} \leq 16$ A
Switching current per output	2 A, short-circuit and overload protected
Filament lamp load max.	10 W
Maximum switching frequency	resistive load: 100 Hz; inductive load: 1...4 Hz (dependent on current load per output)
Status indicator	one LED per output
Diagnostics	
Field bus	BA-, RD-, RC-LEDs
Under voltage	LED and alarm to the Master
Short-circuit output	LED and alarm to the Master, every channel individual
Dimensions drawing	



Accessories	Art.-No.
PG 9 compression gland Set: 2 pieces	polyamide black 55469
PG 9 cap Set: 2 pieces	polyamide black 55458
M12 blind plug Set: 4 pieces	55468
Handbook German	55497
INTERBUS-Remote bus cable	per meter (1m) 55771
INTERBUS-Installation remote bus cable	per meter (1m) 55772
Notes	

PG glands are not supplied. Configuration see page 2.4.9

Robust I/O module (IP67)

Bus module MBV
INTERBUS

Input/output module

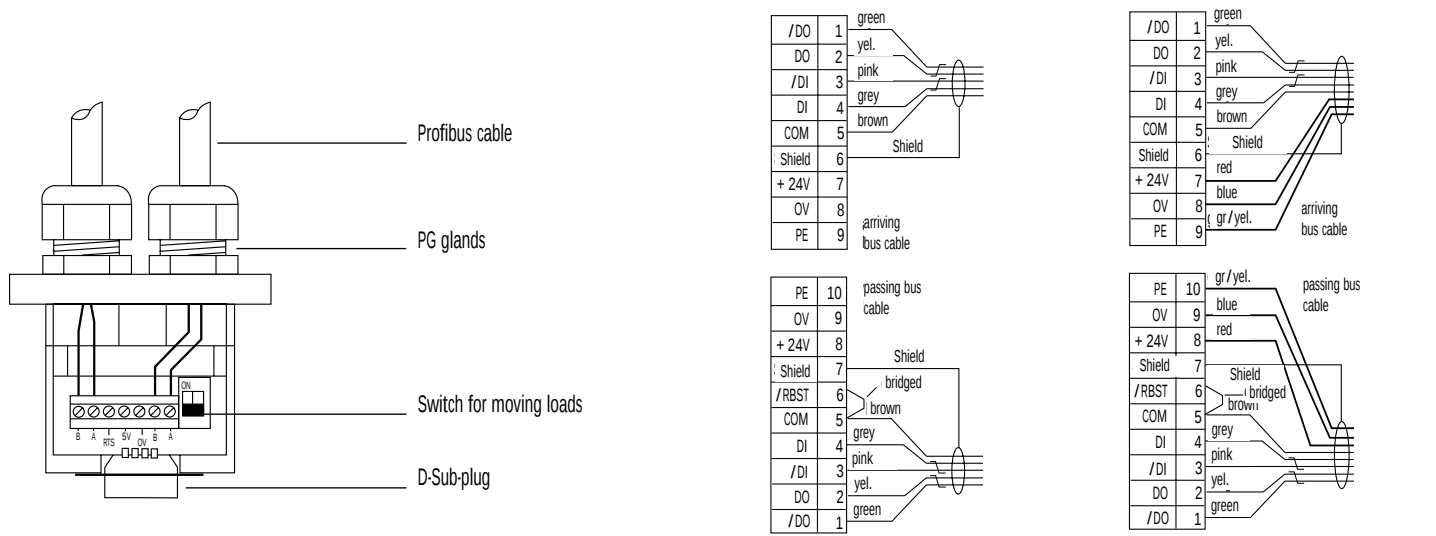
IP67 Protection

MBV-I



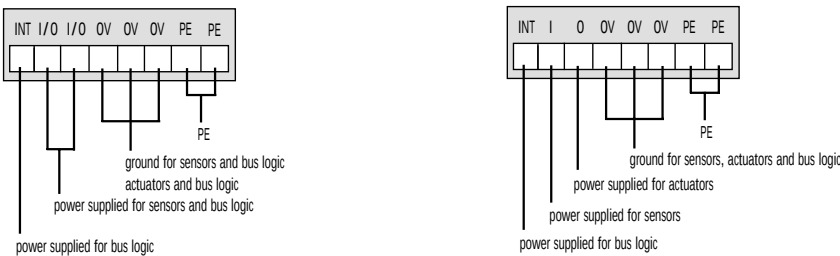
Ordering data		Art.-No.
8 digital inputs, 4 digital 2 A outputs		55462
Technical data	Module	
Temperature range	0...+55 °C (-20...+55 °C on request)	
Mounting method	2 holes for screw fixing	
Dimensions	H x W x D	217,5 x 63 x 70,5 mm
Technical data	Field bus	
Supply	24 V DC (18...30,2 V), to EN 61131-2, < 100 mA	
Type	remote bus / installation remote bus participants (Slave)	
Transfer protocol	INTERBUS to DIN EN 50254	
Modes	Sync- and Freeze-Mode is supported	
Transfer speed	500 kBit/s	
Technical data	Inputs	
Type	for 3-wire sensors or mechanical switches, p-switching, IEC 1131-2 compatible	
Supply	24 V DC (18...30,2 V), to EN 61131-2, < 1,6 A overload protected	
Status indicator	one LED per output	
Technical data	Outputs	
Supply	24 V DC (18...30,2 V), to EN 61131-2, $I_{\Sigma} \leq 8$ A	
Switching current per output	2 A, short-circuit and overload protected	
Filament lamp load max.	10 W	
Maximum switching frequency	resistive load: 100 Hz; inductive load: 1...4 Hz (dependent on current load per output)	
Status indicator	one LED per output	
Diagnostics		
Field bus	BA-, RD-, RC-LEDs	
Under voltage	LED and alarm to the Master	
Short-circuit output	LED and alarm to the Master	
Short-circuit output	LED and alarm to the Master, every channel individual	
Dimensions drawing		
Accessories		Art.-No.
PG 9 compression gland	Set: 2 pieces	polyamide black 55469
PG 9 cap	Set: 2 pieces	polyamide black 55458
M12 blind plug	Set: 4 pieces	55468
Handbook German		55497
INTERBUS-Remote bus cable	per meter (1m)	55771
INTERBUS-Installation remote bus cable	per meter (1m)	55772
Notes		
PG glands are not supplied, Configuration see page 2.4.9		

Connection diagram for MBV-P



Standard configuration

Connection	MBV-P DI8	(Art.-No. 55450)	Connection	MBV-P-DI8 DO4 / 2A	(Art.-No. 55452)
	MBV-P DO8 / 2A	(Art.-No. 55451)		MBV-I DI8 DO4 / 2A	(Art.-No. 55462)
	MBV-P DI16	(Art.-No. 55453)			
	MBV-P DO16 / 1A	(Art.-No. 55489)			
	MBV-I DI8	(Art.-No. 55460)			
	MBV-I DO8 / 2A	(Art.-No. 55461)			
	MBV-I DI16	(Art.-No. 55463)			



Configuration for "VW"

Connection	MBV2-P-D08 / 2A	(Art.-No. 55481)	Connection	MBV2-P DI8 DO4 / 2A	(Art.-No. 55482)	Connection	MBV2-P-DI8	(Art.-No. 55480)
							MBV2-P DI16	(Art.-No. 55483)

