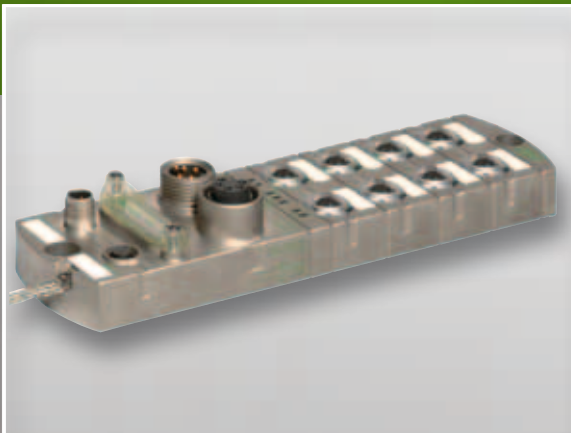


- Robust
- Vibration-resistant
- Fully Potted

MVK METAL AND IMPACT67

Compact IP67 Modules





MVK METAL

Fully Potted Metal Housing
Ideal for Harsh Environments

MVK METAL AND IMPACT67 COMPACT IP67 BUS MODULES

Applications



■ MVK Metal

- Machine tools and machining centers
- Forming and sheet metal working
- Foundry plants and forges
- Cutting machines and welding machines

■ IMPACT67

- Logistics
- Sheet metal working
- Handling robotics
- Transfer and materials-handling technology

COMPACT FIELDBUS MODULES FOR SENSORS AND ACTUATORS

Fieldbus modules with IP67 protection are a key element in machine installation and can replace complex, and therefore expensive, wiring required for terminal boxes. Fieldbuses replace conventional parallel wiring. This helps save space in the control cabinet.

The modules are placed close to the operating area. They connect sensors and actuators to the control via pluggable, pre-wired connectors. Compared to conventional wiring, it reduces the costs for assembly and maintenance.

Cost-effective decentralization – compact and robust

- **Short I/O cables** – reduce the amount of wiring
- **Pluggable connections** – avoid wiring errors and simplify service work
- **Easy to install** – does not require elaborate parallel wiring

| **MAXIMUM FLEXIBILITY – THROUGH MULTIFUNCTIONAL I/O**

Both signals on each M12 port can be configured independently, whether input, output or diagnostic input. Now, modules can be used more efficiently.

- Double valves occupy only one M12 port
- No separate modules for inputs and outputs
- No unplanned reserves
- Maximum flexibility for expansions
- Fewer variations required – minimizes inventory cost

DON'T LOOK FOR ERRORS, FIND THEM – TOTAL DIAGNOSTICS

That means detailed information on the types and locations of errors.

- Only the affected port is switched off and not the complete module
- Detailed message to the control + LED on-the-spot
- Errors are found more rapidly, problems are solved faster: this minimizes system downtime and shortens start-up time

DURABLE – AND ROBUST DESIGN

- Metal housing with surface finishing is welding spark resistant
- Fully potted electronic unit for maximum strength against shock and vibration
- Resistant to a whole series of coolants and lubricants
- Robust design for universal applications

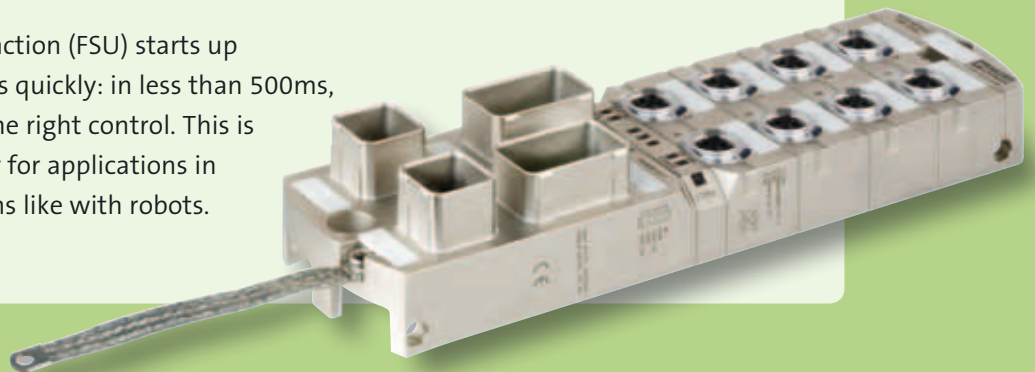
MVK METAL

IMPACT67

Did You Know?

MVK-PROFINET – MODULES FOR QUICK CHANGE OF TOOLS

The Fast Start Up function (FSU) starts up PROFINET IO modules quickly: in less than 500ms, in connection with the right control. This is a clear advantage for applications in tool changing systems like with robots.



ECONOMIC DECENTRALIZATION

Impact67 is the perfect fieldbus solution for basic applications that need to be cost-effective. The modules in this product range are available with different bus protocols: PROFIBUS, CanOpen, DeviceNet, EtherCat, EtherNet/IP and PROFINET. Impact67 features pluggable connections, diagnostic options and IP67 tested seals.

This makes Impact67 the perfect choice for an electrical engineer whose objective is minimizing costs while maintaining digital inputs and outputs under normal conditions. Impact67 can be used in many different applications: in the plant engineering field (logistics, packaging and recycling industry, palletizing), in the non-cutting metal industry (sheet metal working, robotics, wood processing) and in the transfer and materials-handling industry.

FOCUS ON ESSENTIALS...

- Predefined inputs and outputs – helps facilitate configuration
- Single channel diagnostic via LEDs – don't look for errors, find them
- Group diagnostics via the bus – easy remote diagnostics
- Port-related shut-off – only the failed port is switched off



MVK METAL

IMPACT67

Your application requires:

- Economic decentralization
- Predefined inputs and outputs
- Single channel diagnostics via LEDs
- Port-related switch off
- Group diagnostics via the bus

Then IMPACT67 is the perfect choice

MVK METAL

Input/output modules

– digital

Protection IP67

Approvals



MVK-MPNIO



MVK+ -MPNIO



Ordering data	Approvals	Art.-No.	Art.-No.	Approvals	Art.-No.
8 DI + 8 x diagnostic/ DI	cCSAus	55287			
8 DI/DO + 8 x diagnostic/ DI	cCSAus	55288			
8 DI/DO + 8 x diagnostic/ DI/DO	cCSAus	55289	55283		
16 DI				cULus	55268
8 DI + 8 DO				cULus	55269
Field bus					
Connection	M12, D-coded			data connector, Push Pull	
Transfer protocol	PROFINET IO			PROFINET IO	
Typ	PROFINET IO Device with integrated switch, Conformance Class B				
Operation mode	Auto-negotiation/Auto MDI/MDI-X				
Transfer rate	100 Mbit/s full duplex				
FSU support	no		no	yes	
Supply voltage					
Connection	7/8"; 5-pole; max. 9 A			power plug Push Pull; max. 12 A	
Supply voltage	24 V DC (18...30.2 V), acc. to EN61131-2				
Galvanic separation between U _s and U _A	no		no	yes	
I/O-ports					
Connection	M12, A-coded				
Digital inputs (DI)	acc. to EN61131-2, sensor supply < 200 mA/port				
Multifunctional channels (DI/DO)	8 M12 ports (black) each 2 digital inputs/outputs to EN61131-2, current capacity per output up to 1.6 A, sensor supply < 200 mA/port				
Outputs (DO)	output loads up to 1.6 A/channel			up to 2 A	
Module diagnostic					
Field bus	LED, according to standards				
Under voltage sensor/system/actuator	U _s < 18 V (LED red)/U _A < 18 V (LED red)				
Periphery	port-related LED (red)				
Dimension					
H x W x D	225 x 63 x 39 mm		225 x 63 x 42,7 mm		
Accessories		Art.-No.			Art.-No.
Push Pull protective cover data connector					7000-99671-0000000
Push Pull protective cover power plug					7000-99661-0000000
Push Pull dust protection set					553260
Blind plug, metal M12 x 1	1 piece	996049			996049
Blind plug, plastic M12 x 1	10 pieces	58627			58627
Blind plug, 7/8"	1 piece	55390			
Diagnostic blind plug M12 x 1	1 piece	7000-13481-0000000			7000-13481-0000000
Addressing cap metal	1 piece	55317			
Label plates	set 20 pieces	55318			55318



More information, for example manuals, is conveniently available in our online shop on the specific product pages

MVK METAL

Input/output modules

– digital

Protection IP67

Approvals



MVK-MP



MVK-MI



MVK-MDN



MVK-MC



Ordering data	Art.-No.	Art.-No.	Art.-No.	Art.-No.
8 DI + 8 x diagnostic/ DI	55307	55294	55297	55304
8 DI/DO + 8 x diagnostic/ DI	55308	55295	55298	55305
8 DI/DO + 8 x diagnostic/ DI/DO	55309	55296	55299	55306
8 DI		5546000		
8 DO		5546100		
16 DO	55290			
8 DI + 4 DO		5546200		
8 DI + 8 DO	55274			
16 DI		5546300		
Field bus				
Connection	M12, B-coded	M12, B-coded	M12, A-coded	M12, A-coded
Transfer protocol	PROFIBUS-DP	Interbus	DeviceNet to ODVA	CANopen
Addressing	0...99 via rotary switch	–	0...63 via rotary switch	1...99 via rotary switch
Transfer rate	up to 12 Mbit/s	500 kbit/s	125, 250 and 500 kbit/s	up to 1 Mbits
Supply voltage				
Connection	7/8"; 5-pole; max. 9 A			
Supply voltage	24 V DC (18...30.2 V), acc. to EN61131-2			
I/O-ports				
Connection	M12, A-coded			
Digital inputs (DI)	acc. to EN61131-2, sensor supply < 200 mA/port			
Multifunctional channels (DI/DO)	8 M12 ports (black) each 2 digital inputs/outputs to EN61131-2, current capacity per output up to 1.6 A, sensor supply < 200 mA/port			
Outputs (DO)	output loads up to 1.6 A/channel (Art.-No. 5546100 2 A/channel)			
Module diagnostic				
Field bus	LED, according to standards			
Under voltage sensor/system/actuator	U _S < 18 V (LED red)/U _A < 18 V (LED red)			
Periphery	port-related LED (red)			
Dimension				
H x W x D	225 x 63 x 50.5 mm			
Accessories				Art.-No.
Blind plug, metal M12 x 1	1 piece			996049
Blind plug, plastic M12 x 1	10 pieces			58627
Blind plug, 7/8"	1 piece			55390
Diagnostic blind plug M12 x 1	1 piece			7000-13481-0000000
Addressing cap metal	1 piece			55317
Label plates	set 20 pieces			55318



More information, for example manuals, is conveniently available in our online shop on the specific product pages

MVK METAL

Input/output modules

- digital
- IO-Link

Protection IP67

IO-Link

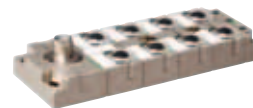
Approvals



MVK-MP IO-Link



MVP12-M DI16 IO-Link



MVP12-M DI8 DO8 IO-Link

Ordering data		Art.-No.	Art.-No.	Art.-No.
4 DI/DO	4 IOL + 8 x diagnostic/ DI /DO	55315		
DI 16 IOL			59407	
DI8 DO8 IOL				59408
Field bus				
Connection	M12, B-coded	–		
Transfer protocol	PROFIBUS-DP	–		
Addressing	0...99 via rotary switch	–		
Transfer rate	up to 12 Mbit/s	–		
Supply voltage				
Connection sensor/system/actuator	7/8"; 5-pole; max 9A	M12, A-coded, male 5-pole		
Supply voltage	24 V DC (18...30.2 V), acc. to EN61131-2			
IO-Link				
IO-Link connection	–	M12, A-coded, male 5-pole		
Port type	A			
Operation mode	SIO, COM1, COM2, COM3	COM2 (38,4 kBaud)		
I/O-ports				
Connection	M12, A-coded			
Multifunctional channels	(DI/DO) 4 M12 ports (black) each 2 digital inputs/outputs to EN61131-2, current capacity per output up to 1.6 A	–		
Multifunctional channels resp. IO-Link Master	(DI/DO) 4 M12 ports (gray) with IO Link Master (PIN 4) and multifunctional channel (PIN 2)	–		
Inputs	–	8xM12 female 5-pole; PIN2 signal DI 10... 17; PIN4 signal DI 0 ... 7	4xM12 female 5-pole; PIN2 signal DI 14 ... 17; PIN4 signal DI 4 ... 7	
Outputs	–		4xM12 female 5-pole; PIN2 signal DO 10 ... 13; PIN4 signal DI 0 ... 3	
Module diagnostic				
Field bus	LED, according to standards			
Under voltage sensor/system/actuator	$U_s < 18 \text{ V}$ (LED red)/ $U_A < 18 \text{ V}$ (LED red)			
Periphery	port-related LED (red)			
Dimension				
H x W x D	225 x 63 x 50.5 mm	145 x 55 x 32 mm		
Accessories				Art.-No.
Blind plug, metal M12 x 1	1 piece			996049
Blind plug, plastic M12 x 1	10 pieces			58627
Blind plug, 7/8"	1 piece	55390		
Diagnostic blind plug M12 x 1	1 piece	7000-13481-0000000		
Addressing cap metal	1 piece	55317		
Adapter plug M12/M12 input ¹⁾	1 piece			7000-42251-0000000
Adapter plug M12/M12 output ²⁾	1 piece			7000-42252-0000000

¹⁾ for analog

²⁾ for analog



More information, for example manuals, is conveniently available in our online shop on the specific product pages

MVK METAL

Input/output modules

– analog and digital

Protection IP67

Approvals



MVK-MP



Ordering data		Art.-No.
4 DI/DO	+ 4 x diagnostic/ DI /DO + 4 AO	55292
4 DI/DO	+ 4 x diagnostic/ DI /DO + 4 AI	55293
Field bus		
Connection	M12, B-coded	
Transfer protocol	PROFIBUS-DP	
Addressing	0...99 via rotary switch	
Transfer rate	up to 12 Mbit/s	
Supply voltage		
Connection sensor/system/actuator	7/8"; 5-pole; max 9A	
Supply voltage	24 V DC(18...30.2 V), acc. to EN61131-2	
I/O-ports		
Connection	M12, A-coded	
Multifunctional channels	(DI/DO)	4 M12 ports (black) each 2 digital inputs/outputs to EN61131-2, current capacity per output up to 1.6 A
Analog channels		4 M12 ports (green) each with 1 analog channel (input 0...10 V, output 0 (4)...20 mA), Input 0 (4)...20 mA via adaptor Art.-No. 7000-42251-000000 Output 0...10 V via adaptor Art.-No. 7000-42252-000000
Module diagnostic		
Field bus	LED, according to standards	
Under voltage sensor/system/actuator	U _S < 18 V (LED red)/U _A < 18 V (LED red)	
Periphery	port-related LED (red)	
Dimension		
	H x W x D	225 x 63 x 50.5 mm

Input/output modules

– digital
– safety outputs up to PL_d
to EN ISO 13849-1

Protection IP67

Approvals



MVK-MP-Safety



Ordering data		Art.-No.
4 DI/DO + 4 x diagnostic/DI /DO + 4 DO +4 DO		55291
Field bus		
Connection	M12, B-coded	
Transfer protocol	PROFIBUS-DP	
Addressing	0...99 via rotary switch	
Transfer rate	up to 12 Mbit/s	
Supply voltage		
Connection sensor/system/actuator	7/8"; 5-pole; max 9 A. safety circuits via separate 7/8" supply (yellow), 2-pole emergency loop	
Supply voltage	24 V DC(18...30.2 V), acc. to EN61131-2	
I/O-ports		
Connection	M12, A-coded	
Multifunctional channels	(DI/DO)	4 M12 ports (black) each 2 digital inputs/outputs to EN61131-2, current capacity per output up to 1.6 A
Safety outputs	(DO)	4 M12 ports (yellow), divided into 2 voltage circuits, 2 outputs per port, capacity up to 2 A
Dimension		
	H x W x D	225 x 63 x 50.5 mm

IMPACT67

Input/output modules

– digital

Protection IP67

Approvals



IMPACT67-P



IMPACT67-DN



IMPACT67-C



Ordering data	Art.-No.	Art.-No.	Art.-No.
16 DI	55345	55071	55075
8 DI + 8 DI (2A)	55346	55072	55076
8 DO (2A)	55347	55073	55077
16 DO (0,5 A)	55348	55074	55078
Field bus			
Connection	M12, B-coded	M12, A-coded	
Transfer protocol	PROFIBUS-DP	DeviceNet to ODVA	CANopen
Addressing	0...99 via rotary switch		
Transfer rate	up to 12 Mbit/s	125 Kbit/s, 250 Kbit/s, 500 Kbit/s	up to 1 Mbit/s
Supply voltage			
Connection	7/8"; 5-pole; U _A max. 9 A, U _S max. 9 A		
Supply voltage	24 V DC (18...30.2 V), acc. to EN61131-2		
I/O-ports			
Connection	M12, A-coded		
Inputs	(DI) for 3-wire sensors or mech. switches		
Sensor supply	24 V DC (18...30, 2V), acc. to EN61131-2, ≤ 200 mA/port		
Outputs	(DO) Semiconductor output short-circuit/overload protected, with 0.5 A or max. 2 A		
Overload cutoff	port-related		
Module diagnostic			
Field bus	RUN-LED		
Supply voltage	LED, alarm via the bus		
I/O overload	LED on the port, group alarm via the bus		
Dimension			
H x W x D	225 x 63 x 50.5 mm		
Accessories			
Blind plug M12 x 1	10 pieces		58627
Label plates	20 pieces		55318
Blind plug, 7/8"	1 piece		55390



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IMPACT67

Input/output modules

– digital

Protection IP67

Approvals



IMPACT67-E

EtherNet/IP[™]
conformance tested

IMPACT67-EC

EtherCAT[™]

IMPACT67-PNIO

PROFINET[®]



Ordering data		Art.-No.	Art.-No.	Art.-No.
16 DI		55085	55081	55091
8 DI + 8 DO (2A)		55086	55082	55092
8 DO (2A)		55087	55083	55093
16 DO (0,5A)		55088	55084	55094
Field bus				
Connection		M12, D-coded		
Transfer protocol		Ethernet IP	EtherCat	PROFINET IO
Addressing		0...99 via rotary switch	automatically	
Transfer rate		up to 100 Mbit/s, full duplex	up to 100 Mbit/s	10/100 Mbit/s Full Duplex
Supply voltage				
Connection		7/8"; 5-pole; U _A max. 9 A, U _S max. 9 A		
Supply voltage		24 V DC (18...30.2 V), acc. to EN61131-2		
I/O-ports				
Connection		M12, A-coded		
Inputs		(DI)	for 3-wire sensors or mech. switches	
Sensor supply		24 V DC (18...30, 2V), acc. to EN61131-2, <= 200 mA/port		
Outputs		(DO)	Semiconductor output short-circuit/overload protected, with 0.5 A or max. 2 A	
Overload cutoff		port-related		
Module diagnostic				
Field bus		RUN-LED		
Supply voltage		LED, alarm via the bus		
I/O overload		LED on the port, group alarm via the bus		
Dimension				
H x W x D		225 x 63 x 50.5 mm		
Accessories				
Blind plug M12 x 1		10 pieces	58627	
Label plates		20 pieces	55318	
Blind plug, 7/8"		1 piece	55390	



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Murrelektronik GmbH | Falkenstraße 3, D-71570 Oppenweiler | P.O.Box 1165, D-71567 Oppenweiler
Phone +49 7191 47-0 | Fax +49 7191 47-130 | info@murrelektronik.com | www.murrelektronik.com

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