



stay connected

- 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

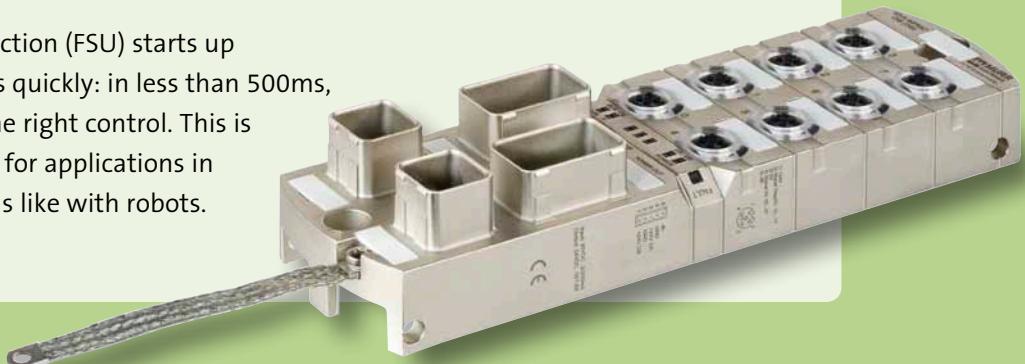
MVK METAL

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.	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
8 DI + 8 DO				cULus

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

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

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	
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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

MVK-MP



MVK-MI



MVK-MDN



MVK-MC



Approvals

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 Mbit/s
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



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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

4 DI/DO 4 IOL + 8 x diagnostic/ DI /DO

Art.-No.

55315

Art.-No.

59407

Art.-No.

59408

DI 16 IOL

DI8 DO8 IOL

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

Blind plug, metal M12 x 1

1 piece

Art.-No.

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 input¹⁾

1 piece

7000-42251-0000000

Adapter plug M12/M12 output²⁾

1 piece

7000-42252-0000000

¹⁾ for analog

²⁾ for analog



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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



IMPACT67-P

PROFIBUS



IMPACT67-DN

DeviceNet

IMPACT67-C

CANopen

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			Art.-No.
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			Art.-No.
Blind plug M12 x 1	10 pieces		58627
Label plates	20 pieces		55318
Blind plug 7/8"	1 piece		55390



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stay connected

Die in dem Prospekt enthaltenen Angaben wurden mit der größtmöglichen Sorgfalt erarbeitet. Für die Richtigkeit, Vollständigkeit und Aktualität ist die Haftung auf grobes Verschulden begrenzt.

► www.murrelektronik.com