

**MVK Pro MPNIO DIO8 IOL8 M12L 4P**

PROFINET, compact module, metal

Art.No.: 54600

Weight: 0.920 kg

Country of origin: DE

Model designation: MVK Pro MPNIO DIO8 IOL8 M12L 4P

Digital inputs/outputs

Ethernet 10/100 Mbit/s; M12, D-coded

IO-Link Master V1.1

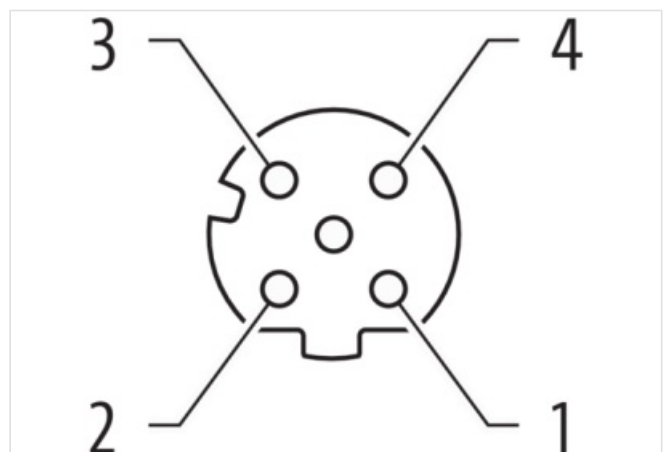
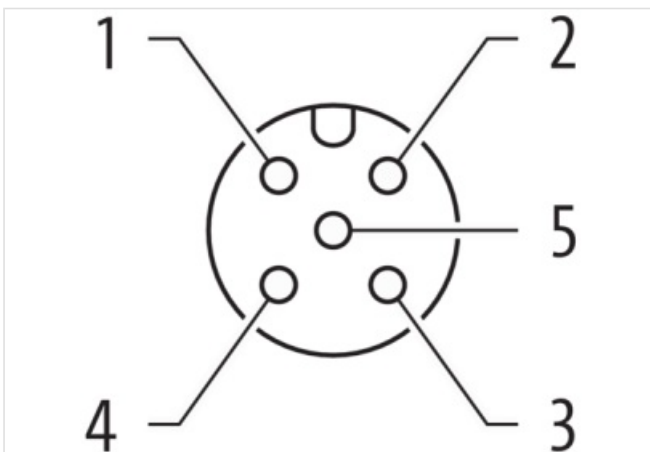
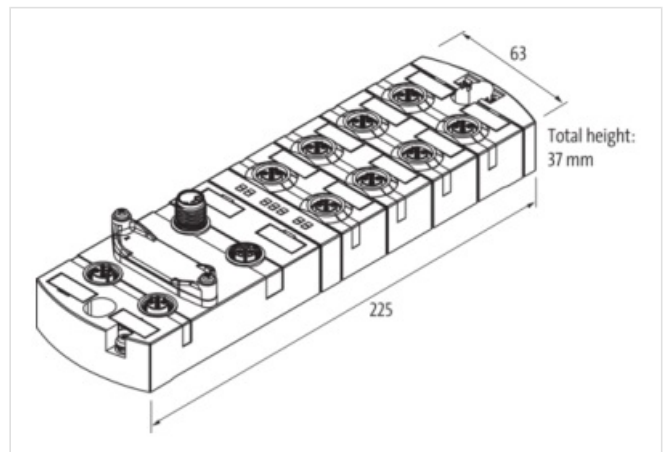
M12 Power, 4-pole, L-coded

M12, 5-pole, A-coded

Housing fully potted.

Connection cables are in the online shop under "Connection Technology".

mounting compatible with I/O modules of the MVK series

[Link to Product](#)**Illustration**

Product may differ from Image

**Header**

The information in this Product-PDF has been compiled with the utmost care.

Liability for the correctness completeness and topicality of the information is restricted to gross negligence. Version: 2026-01-14

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|                     |                                 |
|---------------------|---------------------------------|
| Material short text | MVK Pro MPNIO DIO8 IOL8 M12L 4P |
|---------------------|---------------------------------|

#### Commercial data

|                       |                                                                                           |
|-----------------------|-------------------------------------------------------------------------------------------|
| URL Webshop           | <a href="https://shop.murrelektronik.com/54600">https://shop.murrelektronik.com/54600</a> |
| GTIN                  | 4048879859530                                                                             |
| ECLASS-6.0            | 27242604                                                                                  |
| ECLASS-6.1            | 27242604                                                                                  |
| ECLASS-7.0            | 27242604                                                                                  |
| ECLASS-7.1            | 27242604                                                                                  |
| ECLASS-8.0            | 27242604                                                                                  |
| ECLASS-8.1            | 27242604                                                                                  |
| ECLASS-9.0            | 27242604                                                                                  |
| ECLASS-9.1            | 27242604                                                                                  |
| ECLASS-10.0.1         | 27242604                                                                                  |
| ECLASS-10.1           | 27242604                                                                                  |
| ECLASS-11.0           | 27242604                                                                                  |
| ECLASS-11.1           | 27242604                                                                                  |
| ECLASS-12.0           | 27242604                                                                                  |
| ECLASS-13.0           | 27242604                                                                                  |
| ECLASS-14.0           | 27242604                                                                                  |
| ETIM-5.0              | EC001597                                                                                  |
| ETIM-6.0              | EC001597                                                                                  |
| ETIM-7.0              | EC001597                                                                                  |
| ETIM-8.0              | EC001597                                                                                  |
| customs tariff number | 85389099                                                                                  |
| EAN                   | 4048879859530                                                                             |
| Packaging unit        | 1                                                                                         |

#### Electrical data | Supply

|                         |                |
|-------------------------|----------------|
| Norm operating voltage  | IEC/EN 61131-2 |
| Operating voltage US DC | 24 V           |
| Total current US max.   | 16 A           |
| Operating voltage UA DC | 24 V           |
| Total current UA max.   | 16 A           |

#### Electrical data | Input

|                                  |                                                                 |
|----------------------------------|-----------------------------------------------------------------|
| Sensor current US per input max. | 2 A                                                             |
| Current carrying capacity max.   | 10 A                                                            |
| Short-circuit protected          | Yes                                                             |
| Overload resistant               | Yes                                                             |
| Type input                       | for 3-wire sensors or mechanical switches, IO-Link Devices, PNP |

#### Electrical data | Output

|                                     |      |
|-------------------------------------|------|
| Output current per pin max.         | 2 A  |
| Max. current output per port        | 4 A  |
| Actuator current UA per output max. | 2 A  |
| Total current outputs max.          | 10 A |
| Overload resistant                  | Yes  |
| Short-circuit protected             | Yes  |

#### Industrial Communication

|                    |          |
|--------------------|----------|
| Supported protocol | Profinet |
| Web interface      | Yes      |

#### Industrial communication | Profinet

|                            |     |
|----------------------------|-----|
| PROFINET conformance class | C   |
| PROFINET addressing        | DCP |

|                                                   |      |
|---------------------------------------------------|------|
| PROFINET Netload Class                            | III  |
| PROFINET specification                            | V2.3 |
| IRT (network communication)                       | Yes  |
| Shared device/input                               | Yes  |
| Number of active connections (IO controller) max. | 2    |

#### Industrial communication | IO-Link

|                                    |                  |
|------------------------------------|------------------|
| IO-Link type                       | 8× Master        |
| Port Class                         | A, B             |
| IO-Link revision ID                | V1.1             |
| IO-Link transmission rate          | COM1, COM2, COM3 |
| IO-Link process data length input  | 32 bytes         |
| IO-Link process data length output | 32 bytes         |
| Automatic baudrate detection       | Yes              |

#### Industrial communication | IIoT functions

|                                          |                                                    |
|------------------------------------------|----------------------------------------------------|
| JSON integration                         | REST-API, MQTT                                     |
| OPC UA transport                         | UA TCP, UA Binary Encoding, UA Secure Conversation |
| Publishing interval OPC UA min.          | 100 ms                                             |
| Number of sessions / clients OPC UA max. | 5                                                  |
| Voltage monitoring                       | Yes                                                |
| Current Monitoring                       | Yes                                                |

#### Diagnostics

|                         |                                  |
|-------------------------|----------------------------------|
| Actuator warning        | per channel via LED and BUS      |
| Short circuit diagnosis | Yes                              |
| Overload diagnosis      | Yes                              |
| Temperature control     | Yes                              |
| Cable break             | per port                         |
| Diagnostic via BUS      | per module and channel           |
| Diagnostic via LED      | per module and channel           |
| LED display             | Ethernet connection/data traffic |
| IO-Link events          | Undervoltage supply, No voltage  |

#### Device protection | Electrical

|                                     |      |
|-------------------------------------|------|
| Degree of protection (EN IEC 60529) | IP67 |
|-------------------------------------|------|

#### Mechanical data | Mounting data

|                            |                       |
|----------------------------|-----------------------|
| Height                     | 42 mm                 |
| Width                      | 63 mm                 |
| Depth                      | 225 mm                |
| Suitable for mounting type | 2-hole screw mounting |

#### Environmental characteristics | Climatic

|                                          |        |
|------------------------------------------|--------|
| Ambient temperature (operation)          | -40 °C |
| Ambient temperature (storage, transport) | -40 °C |

#### Connection type 4

|                          |          |
|--------------------------|----------|
| Connection type 1        | X0-X7    |
| Connection type 2        | XD1      |
| Connection type 3        | XD2      |
| Connection type 4        | XF1, XF2 |
| Family construction form | M12      |
| No. of poles             | 5        |
| Coding                   | A        |
| Gender                   | female   |
| Color contact carrier    | gray     |
| PIN 1                    | 24 V DC  |

|                          |                   |
|--------------------------|-------------------|
| PIN 2                    | DI / DO           |
| PIN 3                    | 0 V               |
| PIN 4                    | DI / DO / IO-Link |
| PIN 5                    | 0 V               |
| Family construction form | M12               |
| No. of poles             | 5                 |
| Coding                   | L                 |
| Gender                   | male              |
| Color contact carrier    | black             |
| PIN 1                    | 24 V DC (US)      |
| PIN 2                    | 0 V               |
| PIN 3                    | 0 V               |
| PIN 4                    | 24 V DC (UA)      |
| PIN 5                    | n.c.              |
| Family construction form | M12               |
| No. of poles             | 4                 |
| Coding                   | L                 |
| Gender                   | female            |
| Color contact carrier    | black             |
| PIN 1                    | 24 V DC (US)      |
| PIN 2                    | 0 V               |
| PIN 3                    | 0 V               |
| PIN 4                    | 24 V DC (UA)      |
| Family construction form | M12               |
| No. of poles             | 4                 |
| Coding                   | D                 |
| Gender                   | female            |
| Color contact carrier    | green             |
| PIN 1                    | TD +              |
| PIN 2                    | RD +              |
| PIN 3                    | TD -              |
| PIN 4                    | RD -              |