

## MVK Fusion

MVK PN FDI6/3 FDO2/1 DIO4 IOL2 IRT PP

Art.No.: 55510

Weight: 1.4

Country of origin: DE

Model designation: MVK PN FDI6/3 FDO2/1 DIO4 IOL2 IRT PP

### One module for maximum variety

The special thing about MVK Fusion is its diversity. The PROFINET/PROFIsafe module combines three elementary functions of installation technology – digital standard sensors and actuators, digital safety-related sensors and actuators and IO-Link.

With MVK Fusion, fewer fieldbus modules are required per modular unit, in the best case just one. This offers attractive opportunities for a wide range of automation applications.

Further information on MVK Fusion can be found at Fieldbus module [MVK Fusion](#).

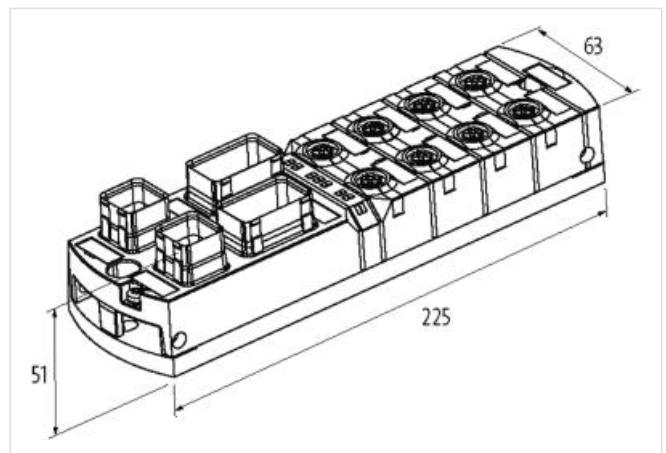
Connection cables are in the online shop under "Connection Technology".

### Link to Product

#### Illustration



Product may differ from Image



#### Commercial data

|             |          |
|-------------|----------|
| ECLASS-6.1  | 27242604 |
| ECLASS-7.0  | 27242604 |
| ECLASS-8.0  | 27242604 |
| ECLASS-9.0  | 27242604 |
| ECLASS-10.1 | 27242604 |
| ECLASS-11.1 | 27242604 |
| ECLASS-12.0 | 27242604 |

|                       |               |
|-----------------------|---------------|
| customs tariff number | 85389099      |
| GTIN                  | 4048879714983 |
| Packaging unit        | 1             |

#### Safety codes

|                                    |                                  |
|------------------------------------|----------------------------------|
| Service life                       | 20 a                             |
| Category (EN ISO 13849-1)          | 4 (X0, X1, X2, X3); 3 (X7 PIN 3) |
| PFHd (IEC 61508)                   | 7,8 E-10/h                       |
| PFHd (IEC 62061)                   | 48 E-10/h                        |
| Performance level (EN ISO 13849-1) | e (X0, X1, X2, X3); d (X7 PIN 3) |
| SIL (IEC 61508)                    | 3 (X0, X1, X2, X3); 2 (X7 PIN 3) |
| SIL CL (IEC 62061)                 | 3                                |

#### Electrical data | Supply

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

#### Electrical data | Input

|                                  |                                                                 |
|----------------------------------|-----------------------------------------------------------------|
| Type input                       | PNP, for 3-wire sensors or mechanical switches, IO-Link Devices |
| Number of F inputs               | 6                                                               |
| Overload resistant               | yes                                                             |
| Short-circuit protected          | yes                                                             |
| Type Safety input                | for electronical sensors or mechanical switches                 |
| Sensor current US per input max. | 0,7 A                                                           |
| Current carrying capacity max.   | 0,7 A                                                           |

#### Electrical data | Output

|                                      |                                                                                |
|--------------------------------------|--------------------------------------------------------------------------------|
| Switching behavior safety output     | 2 FDO X3 (PIN 2, PIN 4: pp, pm, ppm switching); 1 FDO X7 (PIN 2: pp switching) |
| Overload resistant                   | yes                                                                            |
| Short-circuit protected              | yes                                                                            |
| Output current per pin (safety) max. | 2 A                                                                            |
| Output current per pin max.          | 2 A                                                                            |
| Total current outputs max.           | 8 A                                                                            |

#### Industrial communication

|                    |          |
|--------------------|----------|
| Supported protocol | PROFINET |
|--------------------|----------|

#### Industrial communication | Profinet

|                                                   |      |
|---------------------------------------------------|------|
| Number of active connections (IO controller) max. | 2    |
| IRT (network communication)                       | yes  |
| MRP client                                        | yes  |
| PROFINET Netload Class                            | III  |
| PROFINET addressing                               | DCP  |
| PROFINET conformance class                        | C    |
| PROFINET specification                            | V2.3 |
| Shared device/input                               | yes  |

#### Industrial communication | IO-Link

|                                    |                  |
|------------------------------------|------------------|
| IO-Link type                       | 2× Master        |
| Port Class                         | A, B             |
| IO-Link revision ID                | V1.1.2           |
| 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              |

#### Diagnostics

|                         |                                  |
|-------------------------|----------------------------------|
| Actuator warning        | per channel via LED and BUS      |
| Diagnostic via BUS      | per module and channel           |
| Diagnostic via LED      | per module and channel           |
| Wire break detection    | yes                              |
| IO-Link events          | No voltage, Undervoltage supply  |
| Short circuit diagnosis | yes                              |
| LED display             | Ethernet connection/data traffic |
| Cross-link detection    | Sensor/Actuator                  |
| Overload diagnosis      | yes                              |

#### Device protection | Electrical

|                                         |      |
|-----------------------------------------|------|
| Degree of protection (EN IEC 60529)     | IP67 |
| Galvanic separation (operating voltage) | yes  |

#### Mechanical data | Mounting data

|                            |                       |
|----------------------------|-----------------------|
| Suitable for mounting type | 2-hole screw mounting |
| Height                     | 51,2 mm               |
| Width                      | 63 mm                 |
| Depth                      | 225 mm                |

#### Environmental characteristics | Climatic

|                            |        |
|----------------------------|--------|
| Operating temperature min. | -20 °C |
| Operating temperature max. | 60 °C  |
| Storage temperature min.   | -40 °C |
| Storage temperature max.   | 85 °C  |

#### Connection type 7

|                          |                               |
|--------------------------|-------------------------------|
| Connection type 1        | X0-X2                         |
| Connection type 2        | X3                            |
| Connection type 3        | X4, X5                        |
| Connection type 4        | X6                            |
| Connection type 5        | X7                            |
| Connection type 6        | XD1, XD2                      |
| Connection type 7        | XF1, XF2                      |
| Family construction form | M12                           |
| Gender                   | female                        |
| Color contact carrier    | yellow                        |
| Coding                   | A                             |
| No. of poles             | 5                             |
| PIN 1                    | 24 V DC (US 1) Test Pulse P 4 |
| PIN 2                    | FDI                           |
| PIN 3                    | 0 V (US 1)                    |
| PIN 4                    | FDI                           |
| PIN 5                    | 24 V DC (US 1) Test Pulse P 2 |
| Family construction form | M12                           |
| Gender                   | female                        |
| Color contact carrier    | yellow                        |
| Coding                   | A                             |
| No. of poles             | 5                             |
| PIN 1                    | n.c.                          |
| PIN 2                    | FDO                           |
| PIN 3                    | 0 V (US 2)                    |
| PIN 4                    | FDO                           |
| PIN 5                    | n.c.                          |
| Family construction form | M12                           |
| Gender                   | female                        |
| Color contact carrier    | black                         |

|                          |                |
|--------------------------|----------------|
| Coding                   | A              |
| No. of poles             | 5              |
| PIN 1                    | 24 V DC (US 2) |
| PIN 2                    | DI / DO        |
| PIN 3                    | 0 V (US 2)     |
| PIN 4                    | DI / DO        |
| PIN 5                    | PE             |
| Family construction form | M12            |
| Gender                   | female         |
| Color contact carrier    | gray           |
| Coding                   | A              |
| No. of poles             | 5              |
| PIN 1                    | 24 V DC (US 1) |
| PIN 2                    | DI             |
| PIN 3                    | 0 V (US 1)     |
| PIN 4                    | DI / IO-Link   |
| PIN 5                    | n.c.           |
| Family construction form | M12            |
| Gender                   | female         |
| Color contact carrier    | gray           |
| Coding                   | A              |
| No. of poles             | 5              |
| PIN 1                    | 24 V DC (US 1) |
| PIN 2                    | DO (US 2)      |
| PIN 3                    | 0 V (US 1)     |
| PIN 4                    | DI / IO-Link   |
| PIN 5                    | 0 V (US 2)     |
| Family construction form | Push Pull      |
| Gender                   | male           |
| Color contact carrier    | green          |
| No. of poles             | 5              |
| PIN 1                    | 24 V DC (US 1) |
| PIN 2                    | 0 V (US 1)     |
| PIN 3                    | 24 V DC (US 2) |
| PIN 4                    | 0 V (US 2)     |
| PIN 5                    | PE             |
| Family construction form | RJ45           |
| Gender                   | female         |
| Color contact carrier    | black          |
| No. of poles             | 8              |
| PIN 1                    | TD +           |
| PIN 2                    | TD -           |
| PIN 3                    | RD +           |
| PIN 4                    | n.c.           |
| PIN 5                    | n.c.           |
| PIN 6                    | RD -           |
| PIN 7                    | n.c.           |
| PIN 8                    | n.c.           |

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