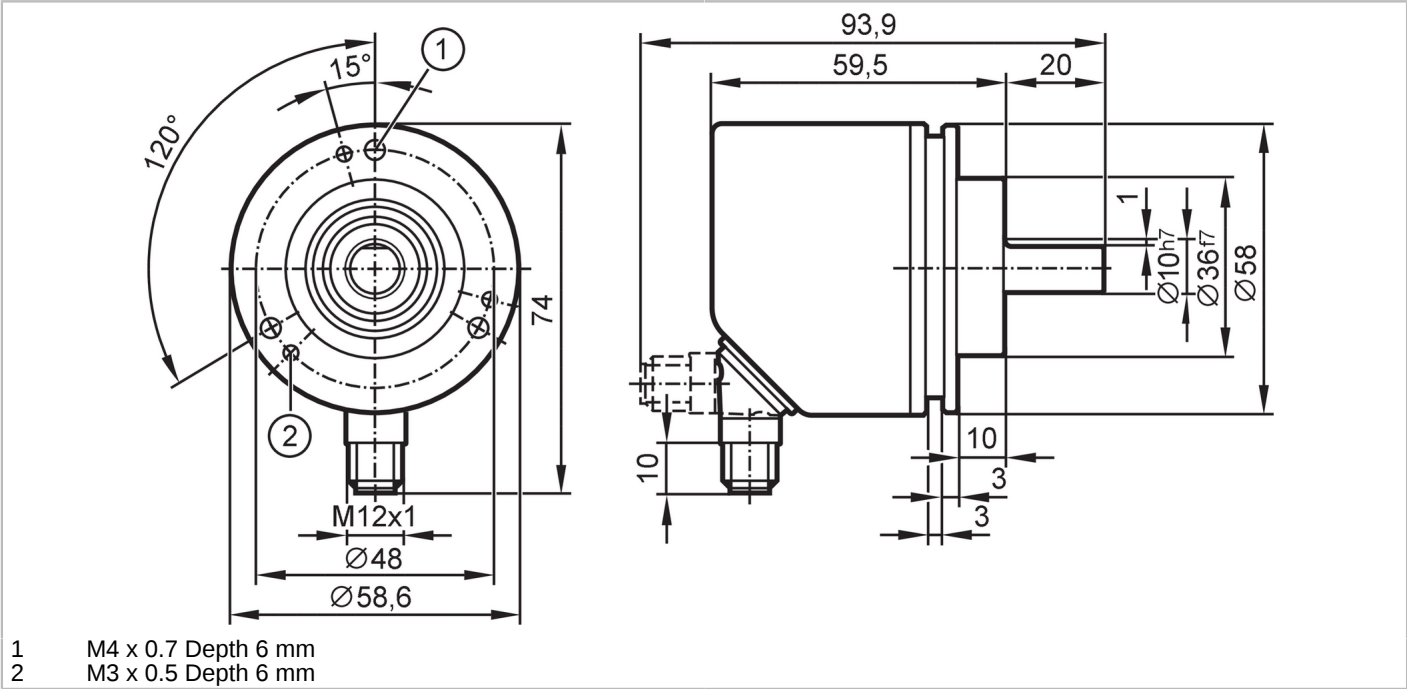


# RMV300



## Absolute multiturn encoder with solid shaft

MULTITURN ENCODER STANDARD LINE



| Product characteristics            |                                                             |
|------------------------------------|-------------------------------------------------------------|
| Resolution                         | 65536 steps; 32768 revolutions; 31 bit                      |
| Communication interface            | IO-Link                                                     |
| Shaft design                       | solid shaft                                                 |
| Shaft diameter [mm]                | 10                                                          |
| Application                        |                                                             |
| Function principle                 | absolute                                                    |
| Revolution type                    | multiturn                                                   |
| Electrical data                    |                                                             |
| Operating voltage [V]              | 18...30 DC; (; to PELV)                                     |
| Rated insulation voltage [V]       | 30                                                          |
| Current consumption [mA]           | < 75                                                        |
| Protection class                   | III                                                         |
| Reverse polarity protection        | yes                                                         |
| Max. power-on delay time [ms]      | 1000                                                        |
| Max. revolution electrical [U/min] | 12000                                                       |
| Outputs                            |                                                             |
| Short-circuit protection           | yes                                                         |
| Measuring/setting range            |                                                             |
| Resolution                         | 65536 steps; 32768 revolutions; 31 bit                      |
| Accuracy / deviations              |                                                             |
| Accuracy [°]                       | 0.1                                                         |
| Software / programming             |                                                             |
| Parameter setting options          | preset; zero point; direction of rotation; rotational speed |



## Absolute multiturn encoder with solid shaft

MULTITURN ENCODER STANDARD LINE

| Interfaces                        |                                                                                                   |                                   |
|-----------------------------------|---------------------------------------------------------------------------------------------------|-----------------------------------|
| Communication interface           | IO-Link                                                                                           |                                   |
| Transmission type                 | COM3 (230,4 kBaud)                                                                                |                                   |
| IO-Link revision                  | 1.1                                                                                               |                                   |
| SDCI standard                     | IEC 61131-9 CDV                                                                                   |                                   |
| Profiles                          | Common - I&D                                                                                      | Identification and Diagnosis      |
|                                   | Function                                                                                          | Multiple switching signal         |
|                                   | Function                                                                                          | Measurement data, high resolution |
| SIO mode                          | no                                                                                                |                                   |
| Required master port type         | A                                                                                                 |                                   |
| Min. process cycle time [ms]      | 2.3                                                                                               |                                   |
| IO-Link process data (cyclical)   | <b>function</b>                                                                                   | <b>bit length</b>                 |
|                                   | process value                                                                                     | 96                                |
|                                   | device status                                                                                     | 4                                 |
|                                   | binary switching information                                                                      | 5                                 |
| IO-Link functions (acyclical)     | application specific tag; operating hours counter; internal temperature; switching cycles counter |                                   |
| Supported DeviceIDs               | <b>Type of operation</b>                                                                          | <b>DeviceID</b>                   |
|                                   | default                                                                                           | 1064                              |
| Note                              | For further information please see the IODD PDF file under "Downloads"                            |                                   |
| Operating conditions              |                                                                                                   |                                   |
| Ambient temperature [°C]          | -40...85                                                                                          |                                   |
| Storage temperature [°C]          | -40...85                                                                                          |                                   |
| Max. relative air humidity [%]    | 98; (condensation not permissible)                                                                |                                   |
| Protection                        | IP 65; (on the housing: IP 67; on the shaft: IP 65)                                               |                                   |
| Tests / approvals                 |                                                                                                   |                                   |
| EMC                               | DIN EN 61000-4-2 ESD                                                                              | 4 kV CD                           |
|                                   | DIN EN 61000-4-3 HF radiated                                                                      | 10 V/m                            |
|                                   | DIN EN 61000-4-4 Burst                                                                            | 2 kV                              |
|                                   | DIN EN 61000-4-6 HF conducted                                                                     | 10 V                              |
| Vibration resistance              | DIN EN 60068-2-6                                                                                  | 10 g / 10...1000 Hz half-sine     |
| Shock resistance                  | DIN EN 60068-2-27                                                                                 | 100 g 6 ms                        |
| Continuous shock resistance       | DIN EN 60068-2-29                                                                                 | 10 g / 16 ms half-sine            |
| Vibration resistance              |                                                                                                   | 30 g (10...1000 Hz)               |
| MTTF [years]                      | 283                                                                                               |                                   |
| UL approval                       | voltage supply                                                                                    | Class 2                           |
| Mechanical data                   |                                                                                                   |                                   |
| Weight [g]                        | 370.9                                                                                             |                                   |
| Housing                           | cylindrical                                                                                       |                                   |
| Dimensions [mm]                   | Ø 58.6 / L = 79.5                                                                                 |                                   |
| Materials                         | flange: aluminium; housing: stainless steel (444/1.4521)                                          |                                   |
| Max. starting torque [Nm]         | 0.01                                                                                              |                                   |
| Reference temperature torque [°C] | 20                                                                                                |                                   |
| Shaft design                      | solid shaft                                                                                       |                                   |
| Shaft diameter [mm]               | 10                                                                                                |                                   |

# RMV300



## Absolute multiturn encoder with solid shaft

MULTITURN ENCODER STANDARD LINE

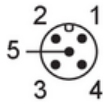
|                                               |                 |
|-----------------------------------------------|-----------------|
| Shaft material                                | stainless steel |
| Max. shaft load axial (at the shaft end) [N]  | 40              |
| Max. shaft load radial (at the shaft end) [N] | 110             |
| Fixing flange                                 | clamping flange |

Remarks

|               |        |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

Electrical connection - plug

Connector: 1 x M12, radial, can also be used axially; coding: A; Contacts: 5; Moulded body: stainless steel (316 / 1.4401)



|   |             |
|---|-------------|
| 1 | UB          |
| 2 | SSC1.2 / IN |
| 3 | GND         |
| 4 | IO-Link     |
| 5 | n. c.       |