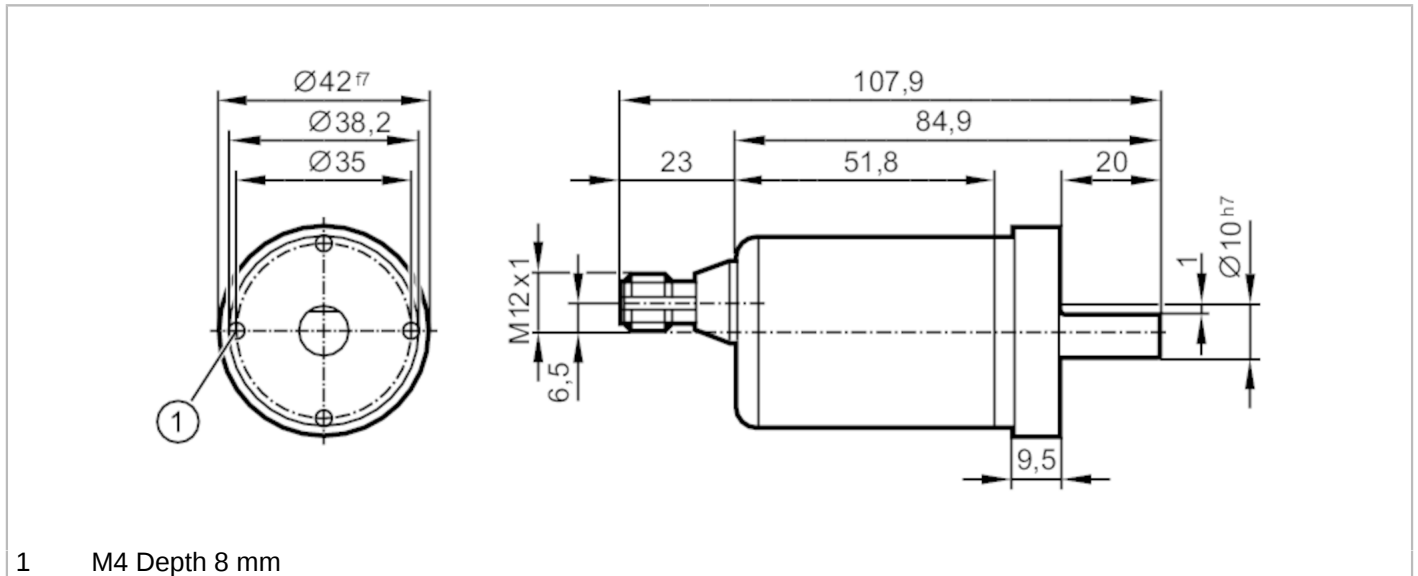


# RMB310



## Absolute multiturn encoder with solid shaft

MULTITURN ENCODER WET LINE



1 M4 Depth 8 mm



| 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   |
| Detection system                   | magnetic  |
| 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] | 6000  |
| 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 |

# RMB310



## Absolute multiturn encoder with solid shaft

MULTITURN ENCODER WET LINE

| Interfaces                      |  |                               |
|---------------------------------|--|-------------------------------|
| Communication interface         | IO-Link  |                               |
| Transmission type               | COM3 (230,4 kBaud)   |                               |
| IO-Link revision                | 1.1  |                               |
| SDCI standard                   | IEC 61131-9 CDV  |                               |
| Profiles                        | Identification and Diagnosis; Switching Signal Channel; Measurement Data Channel (high resolution) |                               |
| SIO mode                        | no   |                               |
| Required master port class      | A  |                               |
| Min. process cycle time [ms]    | 2.3  |                               |
| IO-Link process data (cyclical) | Function   | bit length                    |
|                                 | 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             | Type of operation  | DeviceID                      |
|                                 | default  | 1064                          |
| Note                            | For further information please see the IODD PDF file at "Downloads"                                |                               |
| Operating conditions            |  |                               |
| Ambient temperature [°C]        | -40...85   |                               |
| Storage temperature [°C]        | -40...85   |                               |
| Max. relative air humidity [%]  | 98; (Condensation not permissible)   |                               |
| Protection                      | IP 68; IP 69K  |                               |
| 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   | 30 g / 10...1000 Hz half-sine |
| Shock resistance                | DIN EN 60068-2-27  | 200 g / 11 ms                 |
| Continuous shock resistance     | DIN EN 60068-2-29  | 30 g / 6 ms half-sine         |
| MTTF [years]                    | 283  |                               |
| UL approval                     | voltage supply   | Class 2                       |

# RMB310



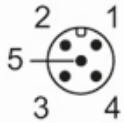
## Absolute multiturn encoder with solid shaft

MULTITURN ENCODER WET LINE

| Mechanical data                               |   |
|---|---|
| Weight [g]                                    | 472.1   |
| Dimensions [mm]                               | Ø 42 / L = 107.9  |
| Material                                      | flange: stainless steel (1.4404 / 316L); housing: stainless steel (1.4404 / 316L) |
| Max. starting torque [Nm]                     | 5   |
| Reference temperature torque [°C]             | 20  |
| Shaft design                                  | solid shaft   |
| Shaft diameter [mm]                           | 10  |
| Shaft material                                | stainless steel (1.4112 / 440B)   |
| Max. shaft load axial (at the shaft end) [N]  | 300   |
| Max. shaft load radial (at the shaft end) [N] | 300   |
| Fixing flange                                 | Synchro-flange  |

### Electrical connection - plug

Connector: 1 x M12, axial; coding: A; Moulded body: stainless steel (1.4401 / 316)



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