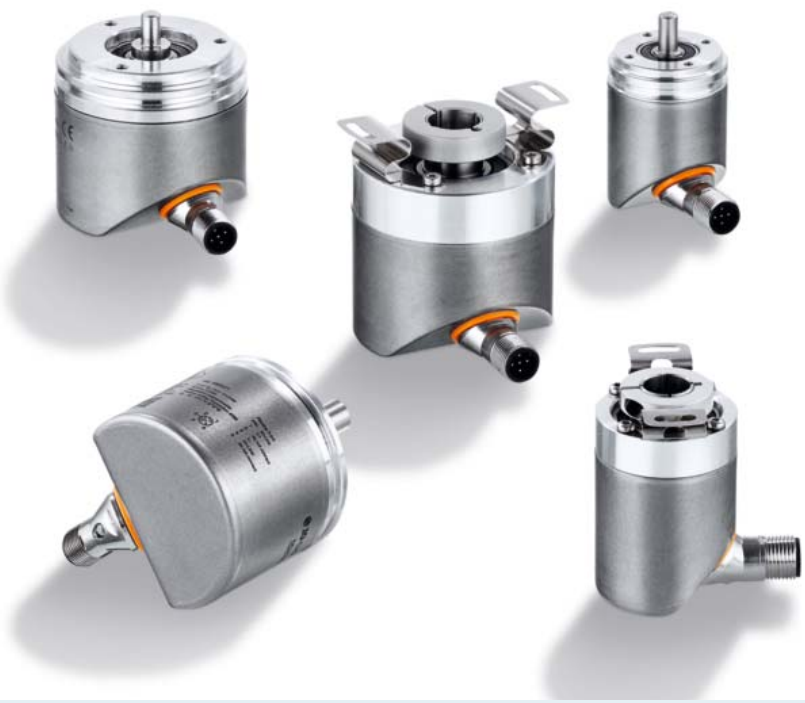


# Never lose orientation: IO-Link multiturn encoders

Encoder



**Absolute position traceability even when unpowered**

**Values can be set directly, without detouring via the PLC, for precise positioning operations**

**Flexible installation thanks to rotatable M12 connector with integrated status LED**

**Bearing operating time measurement for efficient maintenance planning**

**Resolution freely configurable for fast set-up**

IP 65

Vibration and shock resistant

IO-Link

**Process communication in real time**

The new multiturn encoder, with a total resolution of 31 bits, offers a broad range of position and speed capacities. Thanks to the robust and battery-free magnetic measurement technology, the sensor also detects movement even if the machine is deactivated. The digital input and output allow for process communication in real time: The position sensors can signal end positions directly to the encoder – without any need for the PLC to interfere. This avoids time delays and mechanical displacements.

**Always keeps your system in control for maintenance tailored to your needs**

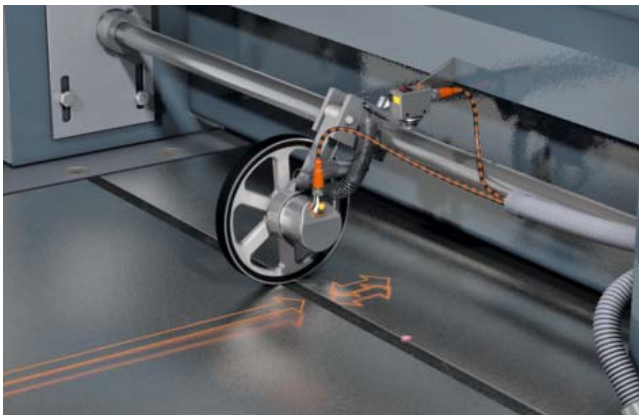
In order to allow for requirement-oriented maintenance, the sensor also provides information on temperature, switch-on and off activity, total operating hours and bearing operating time. In addition, the integrated speed monitor permanently monitors the shaft speed, thus ensuring high plant uptime.

| Housing Ø [mm] | Shaft Ø [mm] | Flange | Resolution [resolution / revolution] | Connection | IO-Link | Protection | Order no. |
|---|---|---|---|---|---|---|---|
| **Solid shaft** | | | | | | | |
| 58 | 10 | clamp | 15 / 16 bits | M12, 5-pole | • | IP 65 | **RMV300** |
| 58 | 6 | synchro | 15 / 16 bits | M12, 5-pole | • | IP 65 | **RMU300** |
| 36.5 | 6 | universal | 15 / 16 bits | M12, 5-pole | • | IP 65 | **RMB300** |
| **Hollow shaft with 2 integrated stator couplings** | | | | | | | |
| 58 | 15 | direct | 15 / 16 bits | M12, 5-pole | • | IP 65 | **RMO300** |
| 36.5 | 12 | direct | 15 / 16 bits | M12, 5-pole | • | IP 65 | **RMA300** |

## Accessories

| Type | Description | Order no. |
|---|---|---|
| **Installation** | | |
|  | Reducing bush for designs RO3, ROP 15...10 mm | **E60211** |
| | Reducing bush for designs RO3, ROP 15...6 mm | **E60213** |
| | Reducing bush for designs RO3, ROP 15...12 mm | **E60214** |
|  | Stator coupling for RO design Stainless steel (301 / 1.4310) | **E60205** |
|  | Fastening clamp | **E60041** |
|  | Bellows coupling with adjusting screws, Ø 6 mm / 10 mm | **E60215** |
| | Bellows coupling with adjusting screws, Ø 10 mm / 10 mm | **E60216** |
| **Connection technology** | | |
|  | Socket, M12, shielded, 2 m, orange, PVC cable, 5-pole | **EVT405** |
| | Socket, M12, shielded, 5 m, orange, PVC cable, 5-pole | **EVT406** |
|  | IO-Link master Profinet 4-port | **AL1100** |
| | IO-Link master EtherNet/IP 4-port | **AL1120** |
|  | Y splitter, adapter cable for RMx300, trigger sensor, 0.4 m PUR cable | **EVC847** |
| **IO-Link** | | |
|  | LR DEVICE (supplied on USB flash drive) software for online and offline parameter setting of IO-Link sensors and actuators | **QA0011** |
|  | USB IO-Link master for parameter setting and analysis of units Supported communication protocols: IO-Link (4.8, 38.4 and 230 kBit/s) | **E30390** |

| Further technical data | | |
|---|---|---|
| Operating voltage | [V DC] | 18...30 |
| Switching frequency | [kHz] | 1000 |
| **Communication interface IO-Link device** | | |
| Type of transmission | | COM3 (230.4 kBaud) |
| IO-Link revision | | 1.1 |
| Interface cycle time | | 2.3 ms |
| IO-Link functions (acyclical) | | Operating hours and shaft movement counter; Switch-on counter; Internal temperature |
| Materials | Flange | Aluminium |
| | Housing | Stainless steel (444 / 1.4521) |
| | Shaft | High-grade stainless steel (320S17 / 1.4571) |
| | Plug | Stainless steel (316 S 13 / 1.4401) |



The target object is detected via a position sensor, and the end position is transmitted in real time via the direct input on the encoder. This allows for the encoder to be set to a predefined value (e.g. zero) for precise target object measurement without encountering any time delays and resulting mechanical displacements caused by a detour via the PLC. Subsequent tasks such as sawing or other machining processes can be triggered. Cabling costs and wiring complexity are reduced.