



Sensors for motion control

# Never lose orientation: IO-Link multiturn encoders



## Encoder

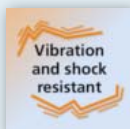


**Absolute position traceability even when unpowered**

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**



### 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.
<b>Solid shaft</b>							
58	10	clamp	15 / 16 bits	M12, 5-pole	•	IP 65	<b>RMV300</b>
58	6	synchro	15 / 16 bits	M12, 5-pole	•	IP 65	<b>RMU300</b>
36.5	6	universal	15 / 16 bits	M12, 5-pole	•	IP 65	<b>RMB300</b>
<b>Hollow shaft with 2 integrated stator couplings</b>							
58	15	direct	15 / 16 bits	M12, 5-pole	•	IP 65	<b>RMO300</b>
36.5	12	direct	15 / 16 bits	M12, 5-pole	•	IP 65	<b>RMA300</b>

## Accessories

Type	Description	Order no.
------	-------------	--------------

### Installation

	Reducing bush for designs RO3, ROP 15...10 mm	<b>E60211</b>
	Reducing bush for designs RO3, ROP 15...6 mm	<b>E60213</b>
	Reducing bush for designs RO3, ROP 15...12 mm	<b>E60214</b>
	Stator coupling for RO design Stainless steel (301 / 1.4310)	<b>E60205</b>
	Fastening clamp	<b>E60041</b>
	Bellows coupling with adjusting screws, Ø 6 mm / 10 mm	<b>E60215</b>
	Bellows coupling with adjusting screws, Ø 10 mm / 10 mm	<b>E60216</b>

### Connection technology

	Socket, M12, shielded, 2 m, orange, PVC cable, 5-pole	<b>EVT405</b>
	Socket, M12, shielded, 5 m, orange, PVC cable, 5-pole	<b>EVT406</b>
	IO-Link master Profinet 4-port	<b>AL1100</b>
	IO-Link master EtherNet/IP 4-port	<b>AL1120</b>
	Y splitter, adapter cable for RMx300, trigger sensor, 0.4 m PUR cable	<b>EVC847</b>

### IO-Link

	LR DEVICE (supplied on USB flash drive) software for online and offline parameter setting of IO-Link sensors and actuators	<b>QA0011</b>
	USB IO-Link master for parameter setting and analysis of units Supported communication protocols: IO-Link (4.8, 38.4 and 230 kBit/s)	<b>E30390</b>

### 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 Housing	Aluminium 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.