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.