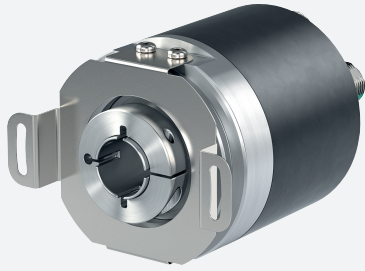


Absolute rotary encoder

ENA58TL-R***-IO-Link



- Absolute rotary encoder of the innovative Pure Line
- Recessed hollow shaft
- IO-Link Interface for process data, parameterization and diagnosis
- Suitable for condition monitoring
- Measuring range, direction of rotation and switching signals programmable
- Free of wear magnetic sampling
- High resolution and accuracy
- Status LEDs

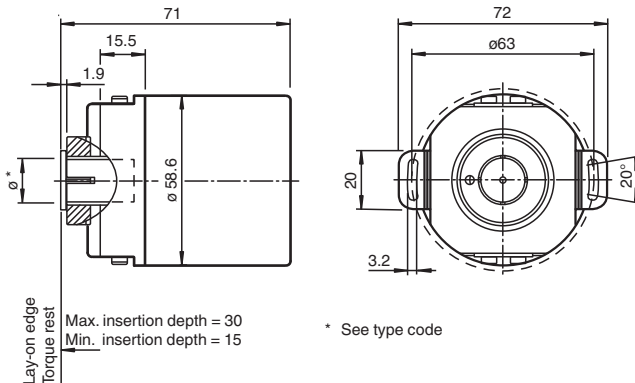


IO-Link

Function

Absolute encoders with IO Link are high precision encoders with internal magnetic sampling. The integrated IO Link interface offers an optimal adaption to different applications through parameterization as well as process data transfer and condition monitoring.

Dimensions

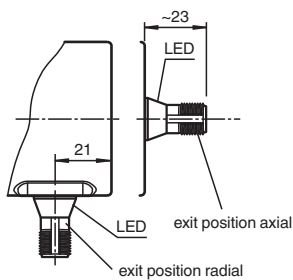


Recessed hollow shaft

Connections

Dimensions in mm

Connector M12



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PEPPERL+FUCHS

Technical Data

General specifications			
Detection type			magnetic sampling
Device type			Absolute rotary encoder as Pure Line
Measured variable			position Temperature
Linearity error			$\leq \pm 0.1^\circ$
UL File Number			E223176 "For use in NFPA 79 Applications only", if UL marking is marked on the product.
Functional safety related parameters			
MTTF _d			566 a at 40 °C
Mission Time (T _M)			20 a
L ₁₀			5 E+8 revolutions at 24/198 N axial/radial shaft load
Diagnostic Coverage (DC)			0 %
Indicators/operating means			
LED STATUS			LED green flashing with short break (1 Hz) - IO-Link mode
Electrical specifications			
Operating voltage	U _B		18 ... 30 V DC
No-load supply current	I ₀		max. 50 mA
Power consumption	P ₀		approx. 1.5 W
Time delay before availability	t _v		< 1 s
Interface			
Interface type			IO-Link
IO-Link revision			1.1
Device profile			Identification and Diagnosis - I&D
Resolution			
Single turn			up to 16 Bit programmable
Multiturn			up to 15 Bit programmable
Overall resolution			up to 31 Bit programmable
Process data			Input 12 Byte - measurement value 4 Byte - resolution 16 Bit - auxiliary measurement value 4 Byte - switching signals 2 Bit - diagnosis signals 2 Bit - status data
Vendor ID			1 (0x0001)
Device ID			5243905 (0x500401), 5243906 (0x500402), 5243909 (0x500405), 5243910 (0x500406)
Transfer rate			COM3 (230.4 kbits/s)
Min. cycle time			1.5 ms
SIO mode support			no
Compatible master port type			Class A Class B (use 3-pole adapter or 3-wire cable)
Connection			
Connector			M12 connector, 5 pin , A-coded
Standard conformity			
Degree of protection			DIN EN 60529, IP65, IP67
Communication interface			IEC 61131-9 / IO-Link V1.1.2
Climatic testing			DIN EN 60068-2-78, no moisture condensation
Emitted interference			EN 61000-6-4:2007
Noise immunity			EN 61000-6-2:2005
Shock resistance			DIN EN 60068-2-27, 100 g, 6 ms
Vibration resistance			DIN EN 60068-2-6, 10 g, 10 ... 1000 Hz
Approvals and certificates			
UL approval			cULus Listed, General Purpose, Class 2 Power Source , if UL marking is marked on the product.

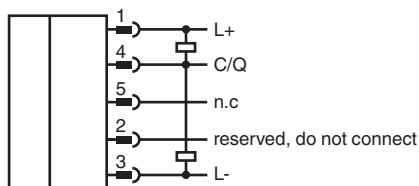
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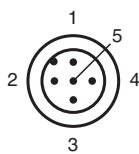
Technical Data

Ambient conditions	
Operating temperature	-40 ... 85 °C (-40 ... 185 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)
Relative humidity	98 % , no moisture condensation
Mechanical specifications	
Material	
Housing	Zinc plated steel, painted
Flange	Aluminum
Shaft	Stainless steel
Mass	approx. 370 g
Rotational speed	max. 12000 min ⁻¹
Moment of inertia	< 30 gcm ²
Starting torque	< 3 Ncm
Shaft load	
Axial	24 N
Radial	198 N
Angle offset	± 0.9 °
Axial offset	± 0.3 mm static; ± 0,1 mm dynamic
Radial offset	± 0.5 mm static; &lusmn 0,2 mm dynamic

Connection



Connection Assignment














Accessories

	ICE1-8IOL-G60L-V1D	Ethernet IO-Link module with 8 inputs/outputs
	V1-G-0,6M-PUR-V1-G	Cordset M12 socket straight to M12 plug straight A-coded, 4-pin, PUR cable grey
	V15-G-1M-PUR-V15-G	Cordset M12 socket straight to M12 plug straight A-coded, 5-pin, PUR cable grey
	ACC-PACK-ABS-_S_58 ø15	Accessory kit for Ø58 absolute rotary encoder with recessed hollow shaft 15 mm

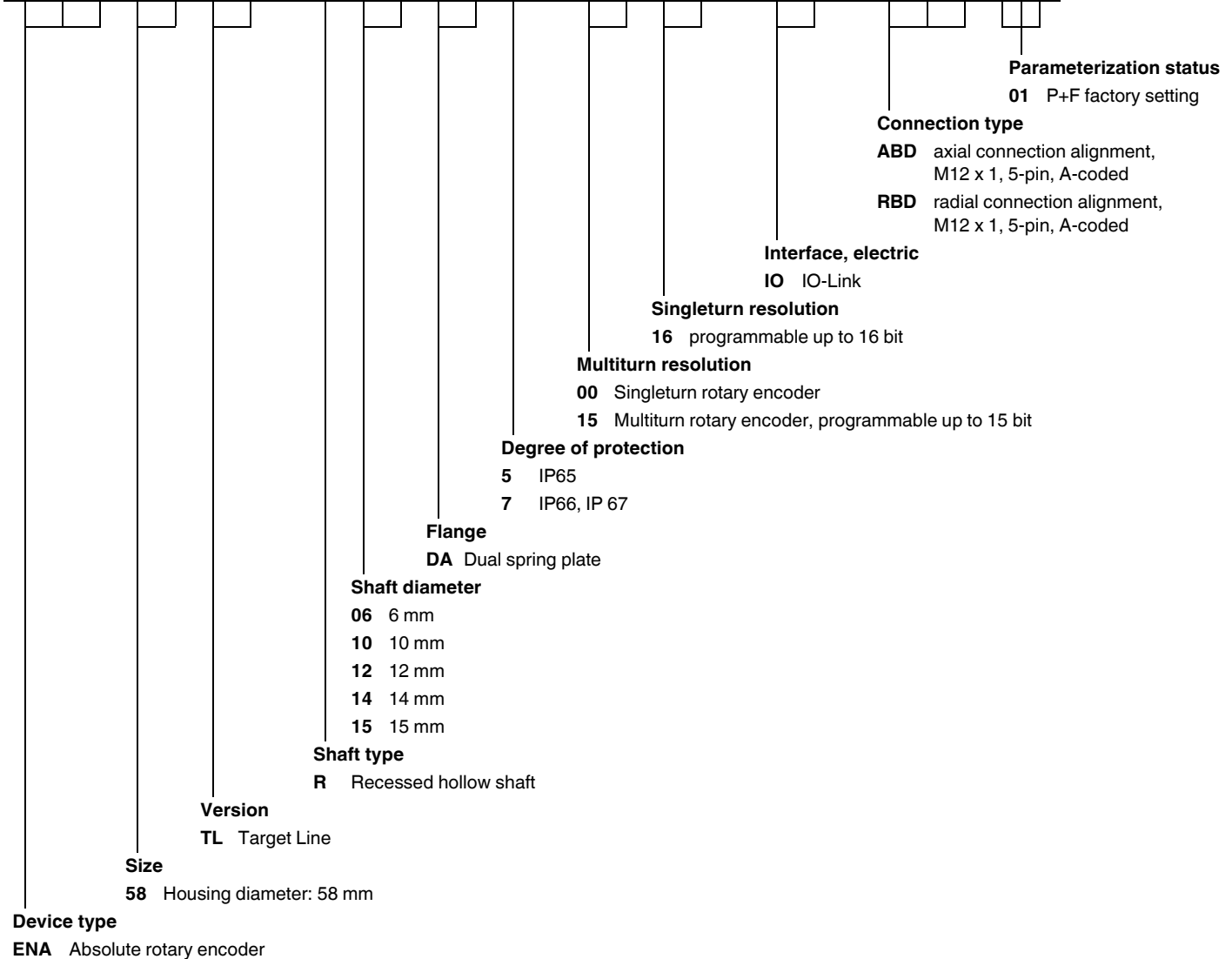
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Accessories

	ACC-PACK-ABS-_S_58 ø14	Accessories set for Ø58 absolute rotary encoder with recessed hollow shaft 14 mm
	ACC-PACK-ABS-_S_58 ø12	Accessories set for Ø58 absolute rotary encoder with recessed hollow shaft 12 mm
	ACC-PACK-ABS-_S_58 ø10	Accessory kit for Ø58 absolute rotary encoder with recessed hollow shaft 10 mm
	ICE1-8IOL-G30L-V1D	Ethernet IO-Link module with 8 inputs/outputs
	ICE2-8IOL-G65L-V1D	EtherNet/IP IO-Link master with 8 inputs/outputs
	ICE3-8IOL-G65L-V1D	PROFINET IO IO-Link master with 8 inputs/outputs
	ICE2-8IOL-K45S-RJ45	EtherNet/IP IO-Link master with 8 inputs/outputs, DIN rail, screw terminal
	ICE3-8IOL-K45P-RJ45	PROFINET IO IO-Link master with 8 inputs/outputs, DIN rail, push-in terminals
	ICE3-8IOL-K45S-RJ45	PROFINET IO IO-Link master with 8 inputs/outputs, DIN rail, screw terminal
	IO-Link-Master02-USB	IO-Link master, supply via USB port or separate power supply, LED indicators, M12 plug for sensor connection
	ICE2-8IOL-K45P-RJ45	EtherNet/IP IO-Link master with 8 inputs/outputs, DIN rail, push-in connectors

Type Code

E N A 5 8 T L - R D A - 1 6 - I O - 0 1



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