



Absolute rotary encoder ENA36HT-S***-IO-Link

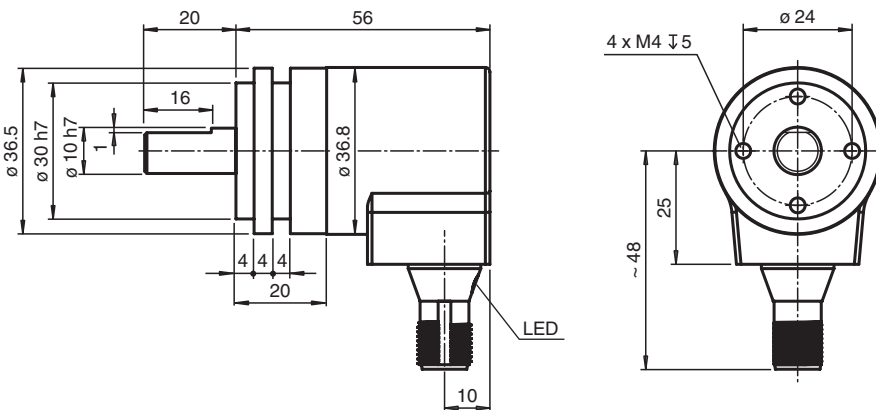
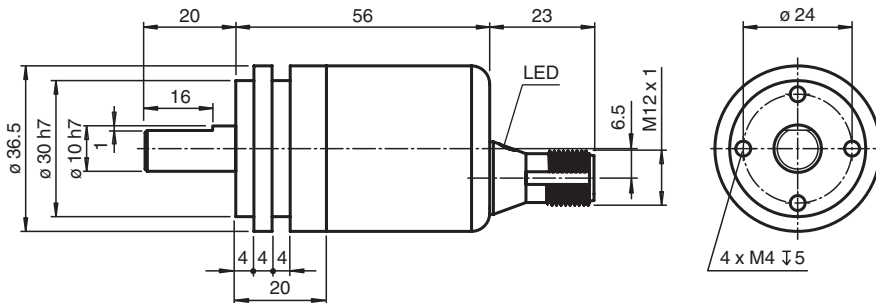
- Absolute rotary encoder of the innovative Pure Line
- Solid shaft
- High climatic resistance
- High mechanical stability
- IO-Link Interface for process data, parameterization and diagnosis
- Suitable for condition monitoring
- Measuring range, direction of rotation and switching signals programmable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



Function

Heavy duty 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



Release date: 2023-12-06 Date of issue: 2023-12-06 Filename: t214135_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PF PEPPERL+FUCHS

Technical Data

General specifications			
Detection type			magnetic sampling
Device type			Heavy duty 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			480 a at 40 °C
Mission Time (T _M)			20 a
L ₁₀			10 E+8 revolutions at 20/40 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			500901 (0x5245185), 500902 (0x5245186)
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, IP68, IP69
Communication interface			IEC 61131-9 / IO-Link V1.1.2
Climatic testing			DIN EN 60068-2-3, no moisture condensation
Emitted interference			EN 61000-6-4:2007
Noise immunity			EN 61000-6-2:2005
Shock resistance			DIN EN 60068-2-27, 200 g, 11 ms
Vibration resistance			DIN EN 60068-2-6, 30 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.
Ambient conditions			

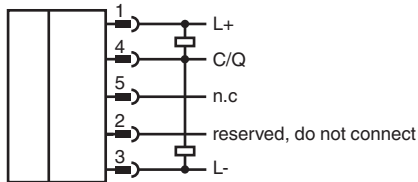
Release date: 2023-12-06 Date of issue: 2023-12-06 Filename: t214135_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

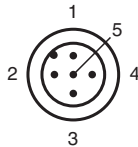
Technical Data

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	powder coated steel
Flange	Aluminum
Shaft	Stainless steel
Mass	approx. 150 g
Rotational speed	max. 6000 min ⁻¹
Moment of inertia	< 30 gcm ²
Starting torque	< 5 Ncm
Shaft load	
Axial	180 N
Radial	180 N

Connection



Connection Assignment



Type Code

Structure of the type code

E	N	A	3	6	H	T	-	S	1	0	S	A	9	-	(1)	(1)	1	6	-	I	O	-	(2)	(2)	(2)	0	1
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-----	-----	---	---	---	---	---	---	-----	-----	-----	---	---

ENA	Device type
ENA	Absolute rotary encoder
36	Size
36	Housing diameter 36 mm
HT	Version
HT	Heavy Duty as Target Line / Pure Line
S	Shaft type
S	Solid shaft
10	Shaft diameter
10	10 mm
SA	Flange
SA	Servo flange

Release date: 2023-12-06 Date of issue: 2023-12-06 Filename: t214135_eng.pdf

Type Code

9	Degree of protection
9	IP68/IP69
(2) (2)	Multiturn resolution
00	Singleturn rotary encoder
15	Multiturn rotary encoder, parameterizable up to 15 bit
16	Singleturn resolution
16	16 Bit
IO	Interface, electric
IO	IO-Link
(3) (3) (3)	Connection type
ABP	Axial connection alignment, M12 x 1, 5-pin, A coded
RH2	Radial connection alignment, M12 x 1, 5-pin, A coded
01	Parameterization status
01	P+F factory setting