Cable pull rotary encoder

ECA10TL-05BNP-B25AZ:OE

- Solid yet lightweight plastic construction
- Compact, slim design (the shaft of the mounted rotary encoder is used to provide the function of the drum bearing)
- Coupling-free adaptation
- Wide range of mounting options
- Rust and acid-resistant measuring cable
- Very high level of linearity and repeatability
- EtherNet/IP
- Status LEDs
- Compatible with Rockwell/ Allen Bradley/ Schneider control

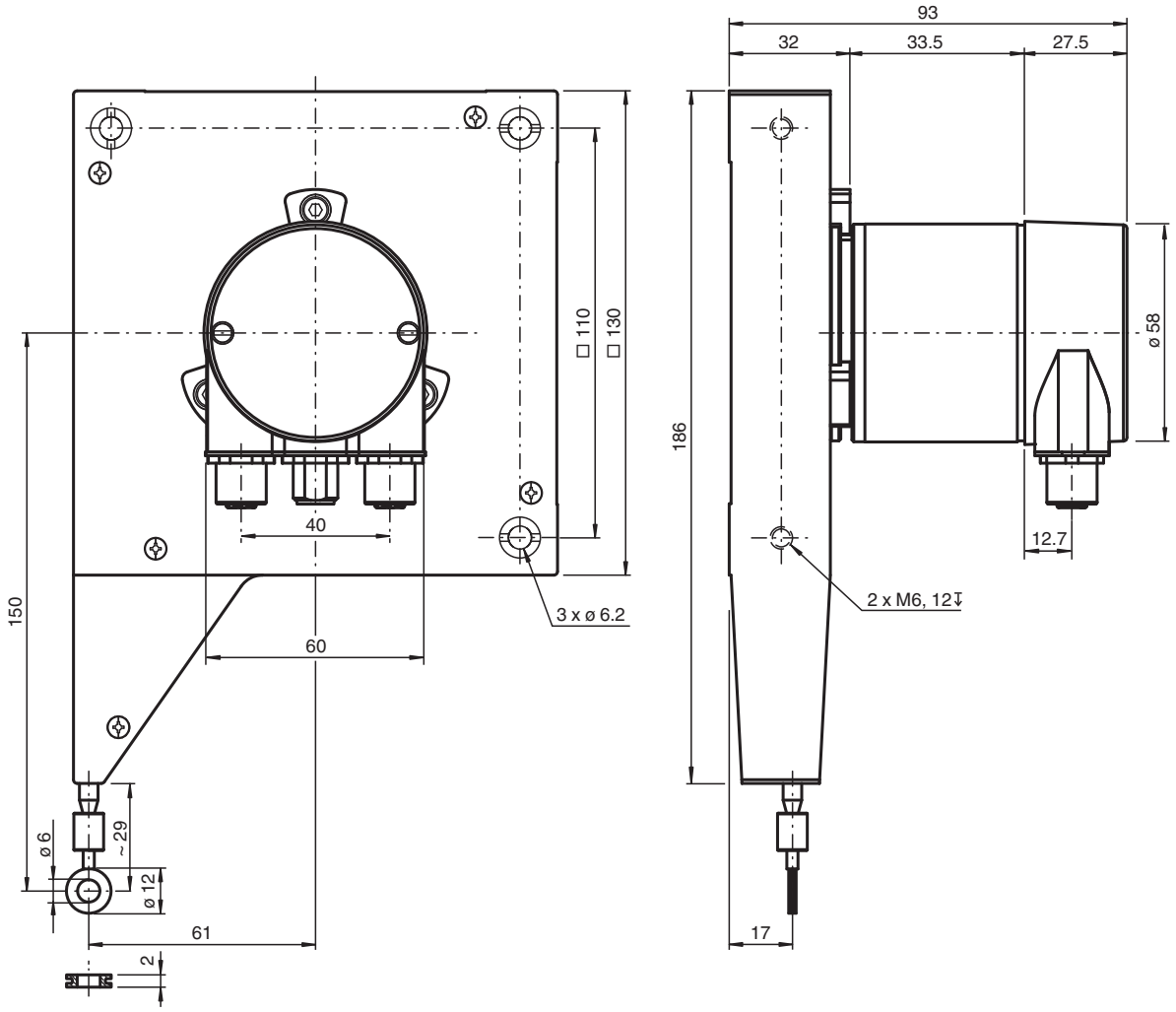
Cable pull rotary encoder with EtherNet/IP interface

CE

Function

Lighter and more solid cable pull rotary encoder with flat housing design.

Dimensions



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Technical Data

General specifications		
Detection type		photoelectric sampling
Device type		Target Line with EtherNet/IP interface
Measuring range		5000 mm
Construction type		130 mm
Resolution		Cable pull: Design 130 mm: 0.047 mm Encoder: 25 Bit (13 Bit/revolution)
Electrical specifications		
Operating voltage	U_B	10 ... 30 V DC
Power consumption	P_0	approx. 4 W
Output code		binary code
Code course (counting direction)		adjustable
Interface		
Interface type		EtherNet/IP
Resolution		
Single turn		13 Bit
Multiturn		12 Bit
Overall resolution		25 Bit
Physical		Ethernet
Transfer rate		100 MBit/s
Connection		
Connector		Ethernet: 2 sockets M12 x 1, 4-pin, D-coded Supply: 1 plug M12 x 1, 4-pin, A-coded
Standard conformity		
Degree of protection		according DIN EN 60529 shaft side: IP64 Cable pull: IP50
Climatic testing		DIN EN 60068-2-3, no moisture condensation
Emitted interference		EN 61000-6-4:2007
Noise immunity		EN 61000-6-2:2005
Ambient conditions		
Ambient temperature		-30 ... 70 °C (-22 ... 158 °F)
Operating temperature		-30 ... 70 °C (-22 ... 158 °F)
Storage temperature		-30 ... 70 °C (-22 ... 158 °F)
Relative humidity		98 % , no moisture condensation
Mechanical specifications		
Rope diameter		0.55 mm
Material		
Housing		nickel-plated steel
Cable pull		Luranyl® or Lexan 920
Flange		Aluminum
Rope		Stainless steel 1.4401/316
Mass		approx. 1200 g
Life span		up to 10^6 Cycles

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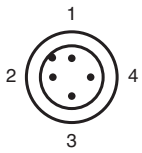
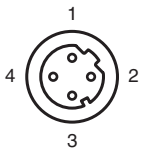
Connection

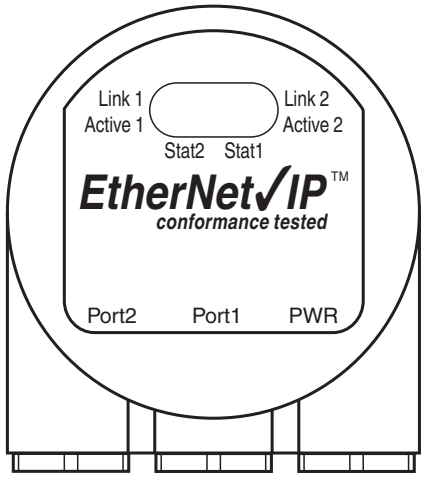
Pin	Male connector M12 x 1, 4-pin, A-coded	Female connector M12 x 1, 4-pin, D-coded
1	Supply voltage +U_B	Tx +
2	-	Rx +
3	0 V	Tx -
4	-	Rx -
		

Indication

Diagnostic LEDs

LED	Color	Description for LED = ON
Active1	Yellow	Incoming and outgoing data traffic for port 1
Link1*	Green	Connection to other Ethernet devices on port 1
Active2	Yellow	Incoming and outgoing data traffic for port 2
Link2*	Green	Connection to other Ethernet devices on port 2
Stat1	Green	Status 1, details see table below
Stat2	Red	Status 2, details see table below

* flashes with 2 Hz if engineering identification call is activated and link connection is available



Stat1 (green)	Stat2 (red) bus failure	Meaning	Cause
off	off	No power	
on	on	No connection to another device Criteria: no data exchange	• bus disconnected • Master not available / switched off
on	flashes [1)]	Parameterization fault, no data exchange Criteria: data exchange correct. However, the slave did not switch to the data exchange mode.	• Slave not configured yet or wrong configuration • Wrong station address assigned (but not outside the permitted range) • Actual configuration of the slave differs from the nominal configuration
on	off	Data exchange. Slave and operation ok.	

1) flashing frequency 0.5 Hz for at least 3 seconds

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