

# Absolute encoders - bus interfaces

End shaft  $\varnothing 10$  to  $\varnothing 14$  mm

Optical multiturn encoders max. 17 bit ST / 16 bit MT, EtherCAT

## ATD 2B A 4 Y26



ATD 2B A 4 Y26 with end shaft

### Features

- Encoder single- or multiturn / EtherCAT
- Optical sensing
- Resolution: max. singleturn 17 bit, multiturn 16 bit
- End shaft  $\varnothing 10$ -14 mm
- Short cycle times up to 62.5  $\mu$ s
- Parametrizable by bus interface
- Self-diagnostic
- Electronic zero point adjustment

### Technical data - electrical ratings

Voltage supply	10...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	$\leq 150$ mA (24 VDC)
Interface	EtherCAT
Function	Multiturn
Profile conformity	CANopen over EtherCAT
Operating mode	Full-Duplex Fast Ethernet physics (100 BASE-TX)
Steps per turn	$\leq 131072$ / 17 bit
Number of turns	$\leq 65536$ / 16 bit
Sensing method	Optical
Code sequence	CW: ascending values with clockwise sense of rotation (looking at mounting surface)
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 55011
Programmable parameters	Steps per revolution Total resolution Rotational direction CW/CCW Number of revolutions Operating modes
Diagnostic functions	Position or parameter error Temperature control Multiturn sensing Self-diagnosis
Status indicator	4-LED integrated in housing

### Technical data - mechanical design

Dimensions (flange)	$\varnothing 58$ mm
Shaft	$\varnothing 10$ ...14 mm end shaft
Protection DIN EN 60529	IP 65
Operating speed	$\leq 8000$ rpm (mechanical) $\leq 8000$ rpm (electric)
Starting torque	$\leq 0.02$ Nm
Materials	Housing: aluminium Shaft: stainless steel
Operating temperature	-20...+85 °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 10 g, 55-2000 Hz DIN EN 60068-2-27 Shock 30 g, 11 ms
Weight approx.	340 g
Connection	Connector M12, female D-coded, 4-pin Connector M12, A-coded, 4-pin
Motor shaft tolerance	0.25 mm axial 0.1 mm radial
Mounting kit variant	019

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End shaft ø10 to ø14 mm

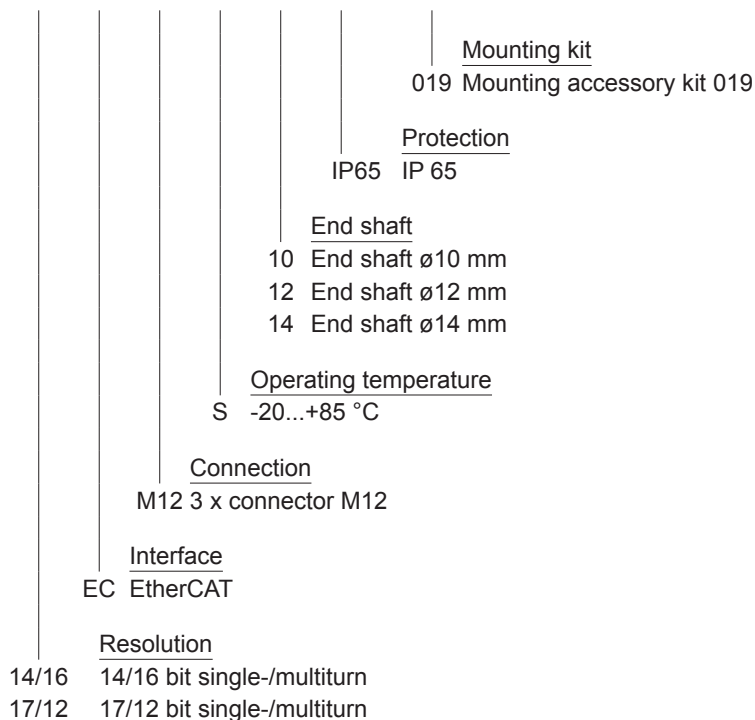
Optical multiturn encoders max. 17 bit ST / 16 bit MT, EtherCAT

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## Part number

ATD 2B A 4 Y26 

	EC	M12	S		IP65	019
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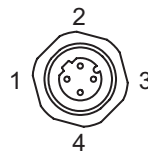
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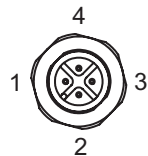
Terminal significance	
Bus-protocol	EtherCAT, CoE (CANopen over EtherCAT)
Operation mode	Full-Duplex Fast Ethernet physics (100 BASE-TX)
Communication	Modi: - Asynchron - Frame synchron - Distributed Clock synchron Cycle times: - min 62,5 $\mu$ s to max. 32 ms in Distributed Clock
Communication profile	compatible to CANopen according to DS 301
Device profile	according to DS 406
Diagnostic messages	position error, operating temperature overrun, battery, hardware error

Terminal assignment		
Connector	Assignment	Significance
Pin 1	TxD+	Transmission data+
Pin 2	RxD+	Receiving data+
Pin 3	TxD-	Transmission data-
Pin 4	RxD-	Receiving data-



Socket, 4-poles, bush contacts, M12 D-coded (IN / OUT)

Connector	Assignment	Significance
Pin 1	VDC	Supply voltage
Pin 2	-	Not assigned
Pin 3	GND	Ground
Pin 4	-	Not assigned



Socket, 4-poles, pin contacts, M12 A-coded (POWER)

# Absolute encoders - bus interfaces

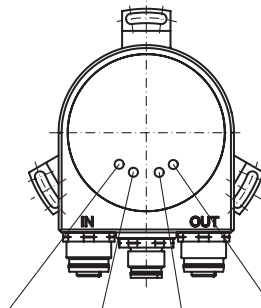
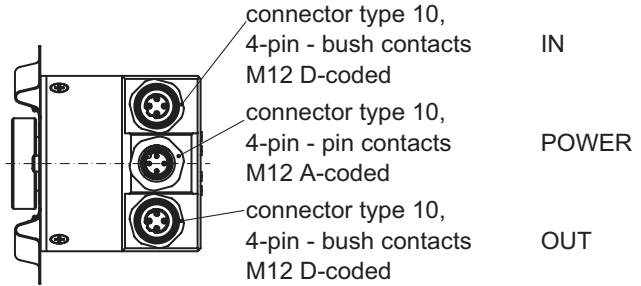
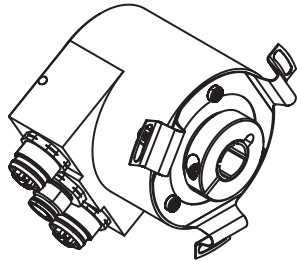
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## Dimensions

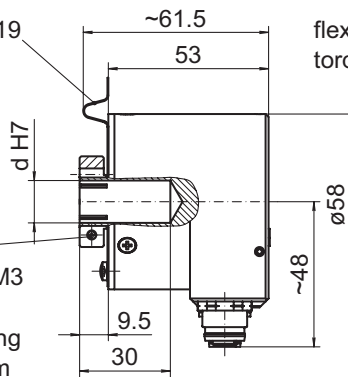
EtherCAT



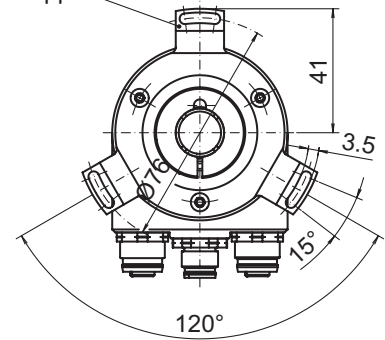
Link/Activity OUT (yellow)    ERROR (red)    RUN (green)    Link/Activity IN (yellow)

mounting kit 19 (standard)

lens screw (DIN7985) - M3 TX10  
max. tightening torque 1.4 Nm



flexible torque support



028- 5 Y26