

# Absolute Shaft Encoders

# Type AC 58

## ACURO industry

## CANopen / CAN Layer 2



- Overall length : 63 mm for single turn, 73 mm for multi turn including bus cover
- All current fieldbus interfaces are available
- The complete bus specific electronics is integrated in the connection cover
- Versions: profibus DP, DeviceNet, CAN, CANopen and Interbus
- Option: Indication "tico"

### TECHNICAL DATA mechanical

Housing diameter	58 mm
Protection shaft input	IP 64 or IP 67
Protection housing	IP 67
Flange	Synchro flange, clamping flange, spring plate
Shaft diameter	Full shaft 6 mm, 10 mm; hollow shaft 10 mm, 12 mm
Max. speed	Continuous: 10,000 min <sup>-1</sup> , short term: 12,000 min <sup>-1</sup>
Starting torque	≤ 0.01 Nm
Inertia of rotor	3.8 x 10 <sup>-6</sup> kgm <sup>2</sup>
Spring tether (hollow shaft)	
Tolerance axial	± 1.5 mm
Tolerance radial	± 0.2 mm
Max. shaft load	axial 40 N, radial 60 N Ø 6 mm axial 60 N (13 lbs), radial 110 N (24 lbs) Ø 10 mm axial 107 N (24 lbs), radial 160 N (35 lbs)
Bearing life	1 x 10 <sup>10</sup> revolutions (typ.) at 35% of full rated shaft load 1 x 10 <sup>9</sup> revolutions (typ.) at 75% of full rated shaft load 1 x 10 <sup>8</sup> revolutions (typ.) at 100% of full rated shaft load For example 30,000 h at 6,000 RPM
Shock resistance DIN EN 60068-2-27	1,000 m/s <sup>2</sup> (6 ms)
Vibration resistance DIN EN 60068-2-6	100 m/s <sup>2</sup> (10 ... 2,000 Hz)
Operating temperature	- 40 ... 85 °C
Storage temperature	- 40 ... 85 °C
Weight ST / MT	approx. 350 g / 400 g

### TECHNICAL DATA electrical

Supply voltage	10-30 V
Intrinsic current consumption ST/MT	220 mA / 250 mA
Interface	CAN-Highspeed according to ISO / DIS 11898, basic and full CAN, CAN specification 2.0 B (11 and 29 Bit Identifier)
Protocol	CANopen according to profile DSP 406, with additional functions
Programmable	CANopen: Direction, Resolution, Preset, Offset, Limit values; CAN L2: Direction, limit values
Output code	Binary
Transfer mode	Poll mode (only on request), Change of State (automatically when values change), cyclical with preset clock timer
Baud rate	adjustable 10 to 1,000 Kbaud
Basic identifier	adjustable with DIP switches
Resolution single turn	10-14 Bit, depend. on version
Resolution multi turn	12 Bit
Integrated special functions	Speed, Acceleration, round axis, Limit values only CANopen
Connections	Flange connector CONIN 12 pole, axial or radial, Bus cover als T-manifold

### CONNECTION DIAGRAM CAN Connector 2-fold 9 pole (integrated T-manifold)

Plug- Pin	Connector with	
	pin insert	socket insert
1	CAN+	CAN+
2	CAN-	CAN-
3	CAN GND	CAN GND
4	N.C.	N.C.
5	N.C.	N.C.
6	N.C.	N.C.
7	10 ... 30 VDC	10 ... 30 VDC
8	0 V (supply voltage)	0 V (supply voltage)
9	N.C.	N.C.
screen	screen <sup>1)</sup>	screen <sup>1)</sup>

<sup>1)</sup> screen connected to encoder housing

### ACCESSORIES

For Mounting	Ordering code
Synchro flange clamping eccentric	0 070 655
Diaphragm coupling (hub 6/6 mm)	3 520 081
Diaphragm coupling (hub 10/10 mm)	3 520 088
For CAN connection	
Mating connector (9 pole, socket, clockwise) for bus input <sup>1)</sup>	3 539 294
Mating connector (9 pole, pins, clockwise) for bus output <sup>1)</sup>	3 539 293
Mating connector for connector, 12 pole clockwise (connection C, D)	3 539 202
Mating connector for connector, 12 pole, counter clockwise (connection G, H)	3 539 229
Technical Manual, German	Internet, <a href="http://www.hengstler.de">www.hengstler.de</a>
Technical Manual, English	Internet, <a href="http://www.hengstler.com">www.hengstler.com</a>
Disc with GSD file	Internet, <a href="http://www.hengstler.com">www.hengstler.com</a>

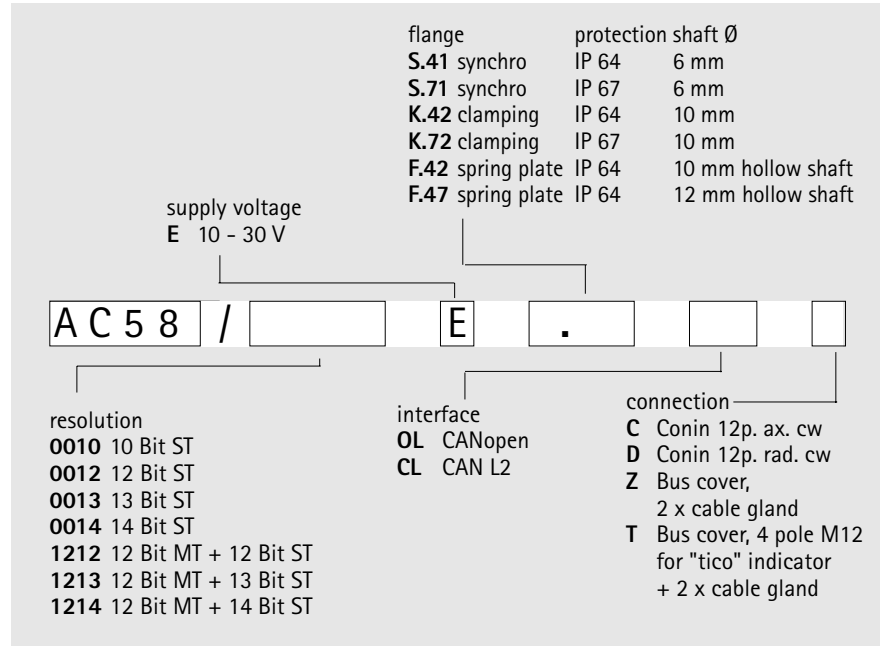
	Ordering code
Diagnostic kit 230 VAC for encoder with bus cover, incl. ACURO soft and "tico"-indicator (suited for supply voltage E and connection G and H)	1 565 070
"tico" indicator	0 731 205
Connection cable, bus cover (T) to "tico, 1.5 m	3 539 575

<sup>1)</sup> matching with connection I (twin flange connector with integrated T-manifold)

DIMENSIONAL DRAWINGS

ORDERING DATA

See chapter "Absolute Encoders - Dimensional drawings"



Note:

Bus connections radial / axial over plug and cable, optional on request.