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### Important Note

The information shown in these documents is for guidance only. No liability is accepted for any errors or omissions. The designer or user is solely responsible for the safe and proper application of the parts, assemblies or equipment described.

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- Diagnostic LED
- Cable or M12-plug connector
- Output of speed, acceleration
- Programmable: Resolution, Preset, Direction
- Option: Display „tico“
- Address via interface parameterizable (optional)

### TECHNICAL DATA mechanical

Housing diameter	58 mm
Protection class shaft input	IP64 or IP67
Protection class housing	IP67
Flange	Synchro flange, clamping flange, hubshaft with tether, square flange
Shaft diameter	Solid shaft 6 mm, 10 mm; hub shaft 10 mm, 12mm
Max. speed	12 000 min <sup>-1</sup> (short term), 10 000 min <sup>-1</sup> (continuous)
Starting torque	≤ 0.5 Ncm
Moment of inertia	3.8 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
Vibration resistance (IEC 68-2-6)	100 m/s <sup>2</sup> (10 - 500 Hz)
Shock resistance (IEC 68-2-27)	1000 m/s <sup>2</sup> (6 ms)
Operating temperature	-40...+85 °C
Storage temperature	-40...+85 °C
Material shaft	Stainless steel
Material housing	Aluminium
Weight approx.	350 g (ST), 400 g (MT)

### TECHNICAL DATA electrical

Supply voltage	DC 10 - 30 V
Max. current w/o load ST/MT	220mA/ 250mA
EMC	EN 61326: Class A
Interface	RS 485
Protocol	Profibus DP with encoder profile class C2 (parameterizable)
General design	as per EN 61010-Part 1, protection class III, contamination level 2, overvoltage class II
Linearity	± ½ LSB (± 1 LSB for resolution 13, 14, 25, 26 Bit)
Output code	Binary
Resolution singleturn	10 to 14 Bit
Resolution multiturn	12 Bit
Baud rate	is automatically set within a range of 9.6 KBaud through 12 MBaud
Device address	adjustable with DIP switches, via fieldbus (optional)
Programmable	Resolution, Preset, Direction

### TECHNICAL DATA electrical (continued)

Integrated special functions	Speed, acceleration, on time
Bus termination resistor	set via DIP switches
Connection	Bus cover with: <ul style="list-style-type: none"> <li>· 3 sealed cable exits</li> <li>· double conin 12 pole, cw, radial</li> <li>· 3 M12</li> <li>· 4 pole M12 f. "tico" display + 2 sealed cable exits</li> </ul>

### DIMENSIONAL DRAWINGS

see chapter "Dimensional drawings ACURO industry", starting page 146

### PIN ASSIGNMENT Bus cover with double conin

Pin	Bus cover with double conin		Description
	IN (pins)	OUT (socket)	
1		GND1	Data Ground (M5V) <sup>1</sup>
2	A	A	Receive/Transmit Data-Negative (A)
3			
4	B	B	Receive/Transmit Data-Positive (B)
5			
6		VCC1	+5 V signal output (P5V) <sup>1</sup>
7	DC 10 - 30 V	DC 10 - 30 V	Supply voltage +U <sub>B</sub> (P24)
8	0 V	0 V	Supply voltage Ground (M24)
9			
10			
11			
12			
screen	screen	screen	screen connected with encoder housing

<sup>1</sup> can be used as power supply for an external bus termination resistor

### PIN ASSIGNMENT Bus cover with 3 M12

Pin	Connector 1	Connector 2	Socket
1		UB in	+5 V signal output (P5V) <sup>1</sup>
2	A in		A out
3		0 V in	Data Ground (M5V) <sup>1</sup>
4	B in		B out
5	screen	screen	screen

<sup>1</sup> can be used as power supply for an external bus termination resistor

### PIN ASSIGNMENT Bus cover with 3 sealed cable exits

Pin	Signal
1	UB in (DC 10 - 30V)
2	0 V in
3	UB out
4	0 V out
5	B in
6	A in
7	B out
8	A out

# Absolute Shaft Encoders

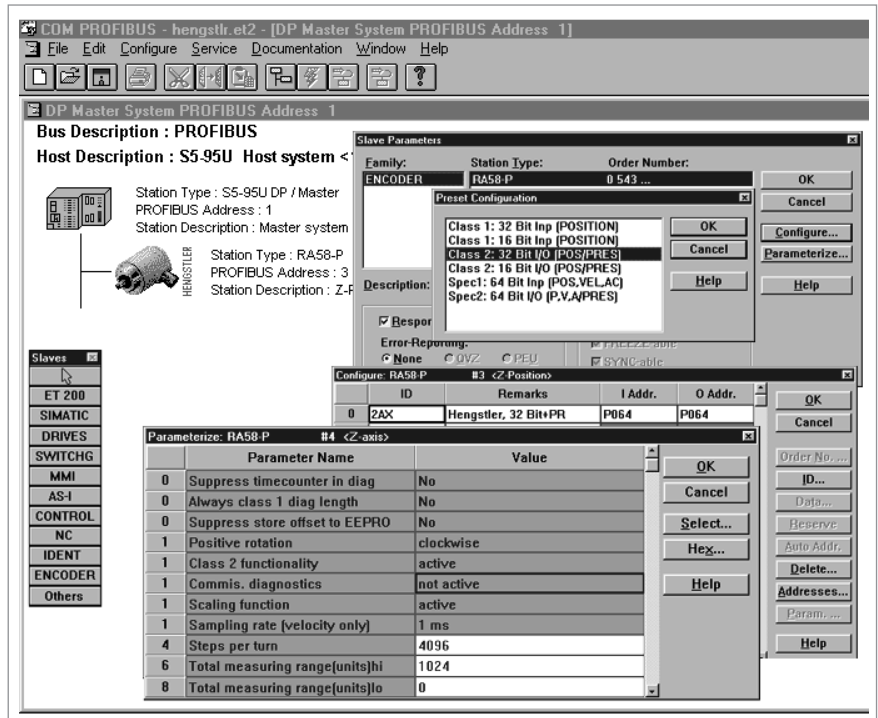
## ACURO industry

# Type AC 58

## Profibus

### STARTUP

The encoder can be easily and quickly installed and programmed with the GSD file.



### ACCESSORIES



	Ordering code
GSD-file	www.hengstler.com
Technical manual, German	2 565 090 (Web)
Technical manual, English	2 565 255 (Web)
Clamping eccentric for synchro flange	0 070 655
Diaphragm coupling (hub 6/6 mm)	3 520 081
Diaphragm coupling (hub 10/10 mm)	3 520 088
Mating connector for connection I (Bus input, 12 pole, bushing, cw)	3 539 202
Mating connector for connection I (Bus output, 12 pole, pins, cw)	3 539 186
"Tico" display for connection T	0 731 205
Connection cable bus cover (connection T) to "tico" display, 1.5m	3 539 575

ORDERING INFORMATION

Type	Resolution	Supply voltage	Flange, Protection, Shaft	Interface	Connection
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>AC58</b>	<b>0010</b> 10 Bit ST <b>0012</b> 12 Bit ST <b>0013</b> 13 Bit ST <b>0014</b> 14 Bit ST <b>1212</b> 12 Bit MT+12 Bit ST <b>1213</b> 12 Bit MT+13 Bit ST <b>1214</b> 12 Bit MT+14 Bit ST	<b>E</b> DC 10 - 30 V	<b>S.41</b> Synchro, IP64, 6x10mm <b>S.71</b> Synchro, IP67, 6x10mm <b>K.42</b> Clamping, IP64, 10x19.5mm <b>K.72</b> Clamping, IP67, 10x19.5mm <b>K.46</b> Clamping, IP64, 9.52x19.5mm <b>K.76</b> Clamping, IP67, 9.52x19.5mm <b>F.42</b> Hubshaft with tether, IP64, 10x19.5mm hollow shaft <b>F.47</b> Hubshaft with tether, IP64, 12x19.5mm hollow shaft <b>F.46</b> Hubshaft with tether, IP64, 9.52x19.5mm hollow shaft <b>Q.42</b> Square, IP64, 10x19.5mm <b>Q.72</b> Square, IP67, 10x19.5mm <b>Q.46</b> Square, IP64, 9.52x19.5mm <b>Q.76</b> Square, IP67, 9.52x19.5mm	<b>DP</b> Profibus	<b>I</b> Bus cover with double conin 12 pole cw radial <b>R</b> Bus cover with 3 M12 <b>T</b> Bus cover with 4 pole M12 f. "tico" display + 2 sealed cable exits <b>Z</b> Bus cover with 3 sealed cable exits
<b>Preferably available versions are printed in bold type.</b>					