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HENGSTLER

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HENGSTLER

Absolute Shaft Encoders

Type AC 58

ACURO industry

Interbus



- Resolution programmable (K3)
- Resolution up to 24 Bit
- Preset (K3)
- Direction (K3)
- Option: display „tico“
- Diagnostic LED

TECHNICAL DATA mechanical

Housing diameter	58 mm
Protection class shaft input	IP64 or IP67
Protection class housing	Connection bus cover IP67 Connection cable IP64 (IP67 optional)
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 ⁻¹ (short term), 10 000 min ⁻¹ (continuous)
Starting torque	≤ 0.5 Ncm
Moment of inertia	3.8 10 ⁻⁶ kgm ²
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 ² (10 - 500 Hz)
Shock resistance (IEC 68-2-27)	1000 m/s ² (6 ms)
Operating temperature	-40...+70 °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; recommended external fuse	220 mA/250 mA; T 0.25 A
current with looped through voltage supply; recommended external fuse	max. 4.5 A for bus cover with double conin, max. 2 A for all other connections; T 4.5 A bus cover with with double conin, T 2 A for all other connections
EMC	Interference emission according to EN 50081-2 Interference resistance according to EN 50082-2
Interface	Remote installation bus
Protocol	Interbus with ENCOM Profile K3 (parameterizable), K2
General design	as per EN 61010-Part 1, protection class III, contamination level 2, overvoltage class II
Linearity	± ½ LSB
Output code	32 Bit Binary
Baud rate	500 Kbaud
Updating of values	every 600 µs

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ACURO industry Interbus

TECHNICAL DATA
electrical (continued)

Resolution singleturn	10 - 12 Bit
Resolution multiturn	12 Bit
Programmable	Direction, Preset, Offset, Resolution
Connection	Bus cover with: · 3 sealed cable exits · double conin 9 pole Cable radial and axial

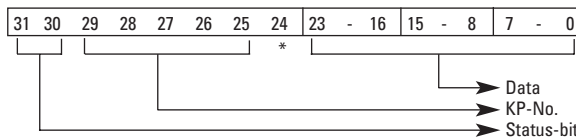
DIMENSIONAL DRAWINGS

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

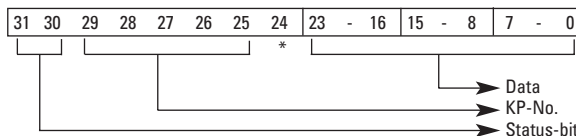
DATA FORMAT INTERBUS K2/K3

	Differential signals (RS 485)				
	ENCOM profile K3, K2, 32 Bit, binary process data				
Data format	Sµpi-address	0	1	2	3
(as per Phoenix)	Byte-No.	3	2	1	0
ID-Code K2	36H (= 54 decimal)				
ID-Code K3	37H (= 55 decimal)				

Host at AC 58



AC 58 at Host



* Bit 24 not used

PROGRAMMABLE FUNCTIONS FOR INTERBUS K3

Function (Programming directly via the bus through transfer of configuration parameters)	Preset values (manufacturer's standard settings)	Customer-specific parameters
Code sequence for clockwise (cw) rotation	ascending	
Offset (KP-No. 05)	0	
Preset value (KP-No. 04)	0	
Scaling faktor (KP-No. 08)	1 ¹	

¹ maximum Resolution

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Interbus

PIN ASSIGNMENT
Cable with Conin 12 pole
(Standard according to ENCOM
for remote installation bus)

Plug pin	Signal
1	D02
2	$\overline{D02}$
3	DI 2
4	$\overline{DI2}$
5	D01
6	$\overline{D01}$
7	DI 1
8	$\overline{DI1}$
9	\overline{RBST}
10	0 V (supply voltage)
11	GND- signal output ¹
12	DC 10 - 30 V

¹ Due to electrical isolation not identical with 0 V (supply voltage) identisch; used by T-manifold to set the RBST input logical on „0“

PIN ASSIGNMENT
Bus cover with double conin
(Standard according to ENCOM
for remote installation bus)

Pin	IN (9 pole pins)	OUT (9 pole socket)
1	D01	D02
2	$\overline{D01}$	$\overline{D02}$
3	DI 1	DI 2
4	$\overline{DI1}$	$\overline{DI2}$
5	GND- signal output ¹	GND- signal output ¹
6	PE ²	PE ²
7	DC 10 - 30 V (SELV)	DC 10 - 30 V (SELV)
8	0 V (supply voltage)	0 V (supply voltage)
9	N.C.	\overline{RBST}

¹ Due to electrical isolation not identical with 0 V (supply voltage) identisch; used by T-manifold to set the RBST input logical on „0“

² Functional earthing; connected with the encoder housing

PIN ASSIGNMENT
Bus cover with 3 sealed cable exits

Connection clamp (12 pole)	
1	UB +
2	GND
3	DI1+
4	DI1-
5	D01+
6	D01-
7	D02+
8	D02-
9	DI2+
10	DI2-
11	[RBST
12	

Absolute Shaft Encoders Type AC 58

ACURO industry Interbus

ACCESSORIES

	Ordering code
Technical manual, German	2 565 217 www.hengstler.com
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, 9 pole, bushing, cw)	3 539 294
Mating connector for connection I (Bus output, 9 pole, pins, cw)	3 539 293

ORDERING INFORMATION

Type	Resolution	Supply voltage	Flange, Protection, Shaft	Interface	Connection
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
AC58	0010 10 Bit ST 0012 12 Bit ST 1212 12 Bit ST+12 Bit MT	E DC 10 - 30 V	S.41 Synchro, IP64, 6x10mm S.71 Synchro, IP67 ¹ , 6x10mm K.42 Clamping, IP64, 10x19.5mm K.72 Clamping, IP67 ¹ , 10x19.5mm K.46 Clamping, IP64, 9.52x19.5mm K.76 Clamping, IP67 ¹ , 9.52x19.5mm F.42 Hubshaft with tether, IP64, 10x19.5mm hollow shaft F.47 Hubshaft with tether, IP64, 12x19.5mm hollow shaft F.46 Hubshaft with tether, IP64, 9.52x19.5mm hollow shaft Q.42 Square, IP64, 10x19.5mm Q.72 Square, IP67 ¹ , 10x19.5mm Q.46 Square, IP64, 9.52x19.5mm Q.76 Square, IP67 ¹ , 9.52x19.5mm	I3 Interbus K3 I2 Interbus K2	A-B5-C Cable axial with conin connector at the 1.5m cable B-B5-C Cable radial with conin connector at the 1.5m cable I Bus cover with double conin Z Bus cover with 3 sealed cable exits
¹ Protection class IP67 not available in combination with LED display for connection with cable Preferably available versions are printed in bold type.					