

TECHNICAL DATASHEET (preliminary)

EX Heavy Duty Absolute AX 65 - SSI



- Extreme Robust Explosionproof absolute MT Encoder
- ATEX certification for Mining, Gas and Dust
- 300 N axial and radial load
- Extreme shock and vibration resistant: 200 g shock; 20 g vibration
- Most compact design of its class: 70 mm mounting depth; 59 mm diameter
- Screw terminal with radial or axial cable output
- Easy and fast field installation: access to DIP switches
- Protection class up IP66/ IP67
- Extreme corrosion resistance: high grade stainless steel housing (1.4404)
- Applications: Winch, enamelling production line, petro chemistry, bottling machines, mixers, silo works, mills, cranes, drilling equipment

ACURO®-XRobust



ATEX



EX-CLASSIFICATION

The robust absolute shaft encoder line ACURO-XR is available in explosion proof design with explosion proof enclosure "Ex d" under AX 65.

It has been assured with the Declaration of Conformity that the AX 65 meets the requirements of safety and health according to EN 60079-0:2009, EN 60079-1:2009 and EN 60079-31:2009.

Therefore it is approved in explosive areas,

Code

Gas: Ex II 2G Ex db II C T4

Dust: Ex II 2D Ex tb IIIC IP6X T135°C IP6X

Mining: Ex I M2 Ex db I

The AX 65 comes with a stainless steel housing. So its suitable for offshore applications, applications under tough environmental conditions and food industry.

TECHNICAL DATA mechanical

Housing diameter	59 mm
Shaft diameter	10 mm (Solid shaft)
Flange (Mounting of housing)	Synchro clamping flange
Protection class shaft input (EN 60529)	IP66/ 67
Protection class housing (EN 60529)	IP66/ 67
Shaft load axial / radial	max.: 300 N / 300 N
Max. speed	max. 3000 rpm
Starting torque typ.	≤ 4.5 Ncm
Moment of inertia	approx. 25 gcm ²
Vibration resistance (DIN EN 60068-2-6)	200 m/s ² (10 ... 500 Hz)
Shock resistance (DIN EN 60068-2-27)	2000 m/s ² (6 ms)
Ambient temperature	Gas: -40 °C ... +60 °C Dust: -20 °C ... +60 °C
Storage temperature	-25 °C ... +85 °C
Material shaft	Stainless Steel

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**TECHNICAL DATA
mechanical (continued)**

Material housing	Stainless Steel
Weight	approx. 1.5 kg
Connection ¹	Cover with 1 x M20x1,5 screw thread, axial or radial Cover with 2 x M20x1,5 screw thread, radial

¹ without cable gland

**TECHNICAL DATA
electrical**

Supply voltage	DC 10-30 V
Current w/o load typ.	100 mA
Resolution singleturn ¹	12 Bit
Resolution multiturn	12 Bit, 16 Bit
Output code	Gray
Drives	Clock and Data / RS422
Absolute accuracy	±1°
Repeatability	±0,2°
Control inputs	Preset, Direction

¹ 13 Bit on request

**RECOMMENDED DATA TRANSFER RATE
bei SSI**

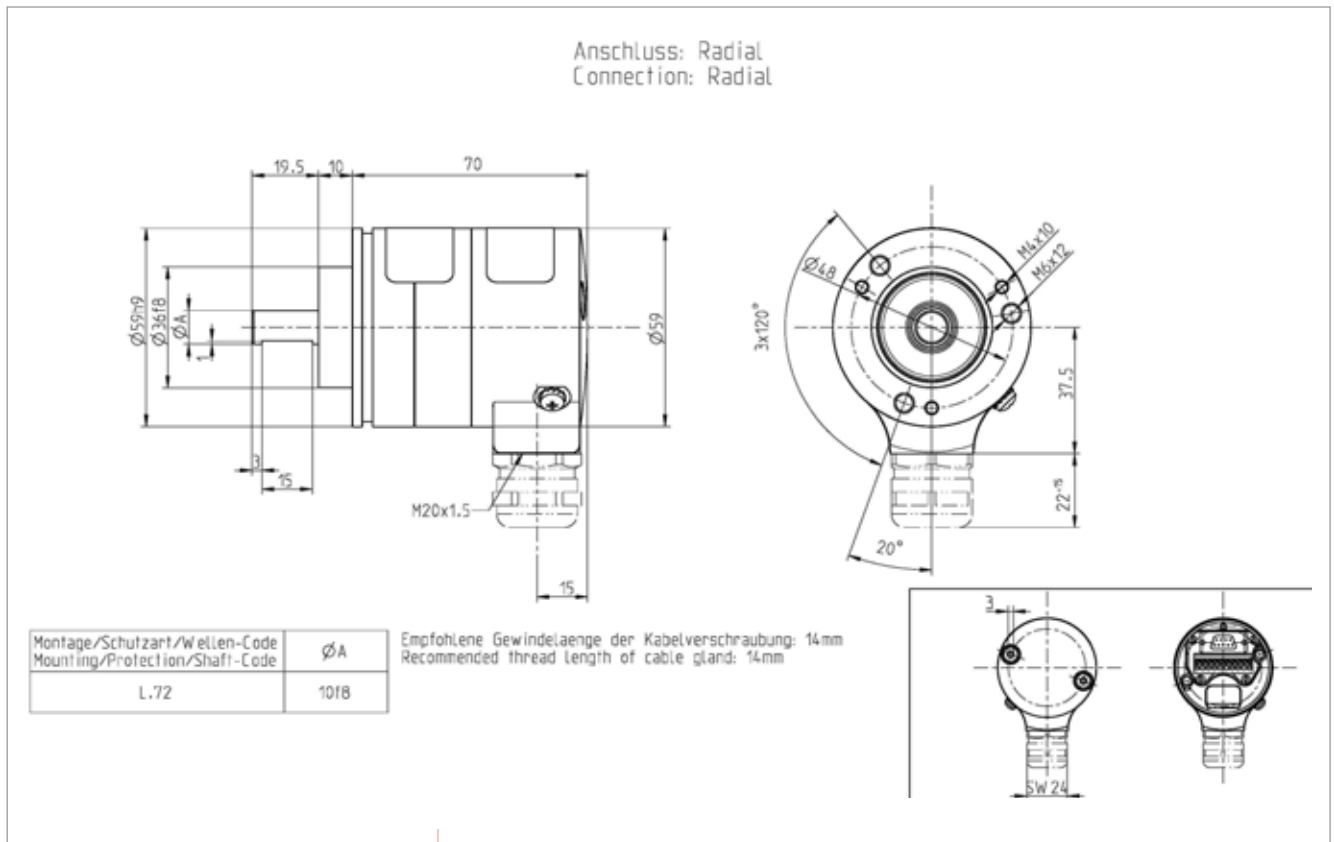
The max. data transfer rate depends on the cable length. For Clock / $\overline{\text{Clock}}$ and Data / $\overline{\text{Data}}$ please use twisted pairs. Use shielded cable.

Cable length	Frequency
< 50 m	< 400 kHz
< 100 m	< 300 kHz
< 200 m	< 200 kHz
< 400 m	< 100 kHz

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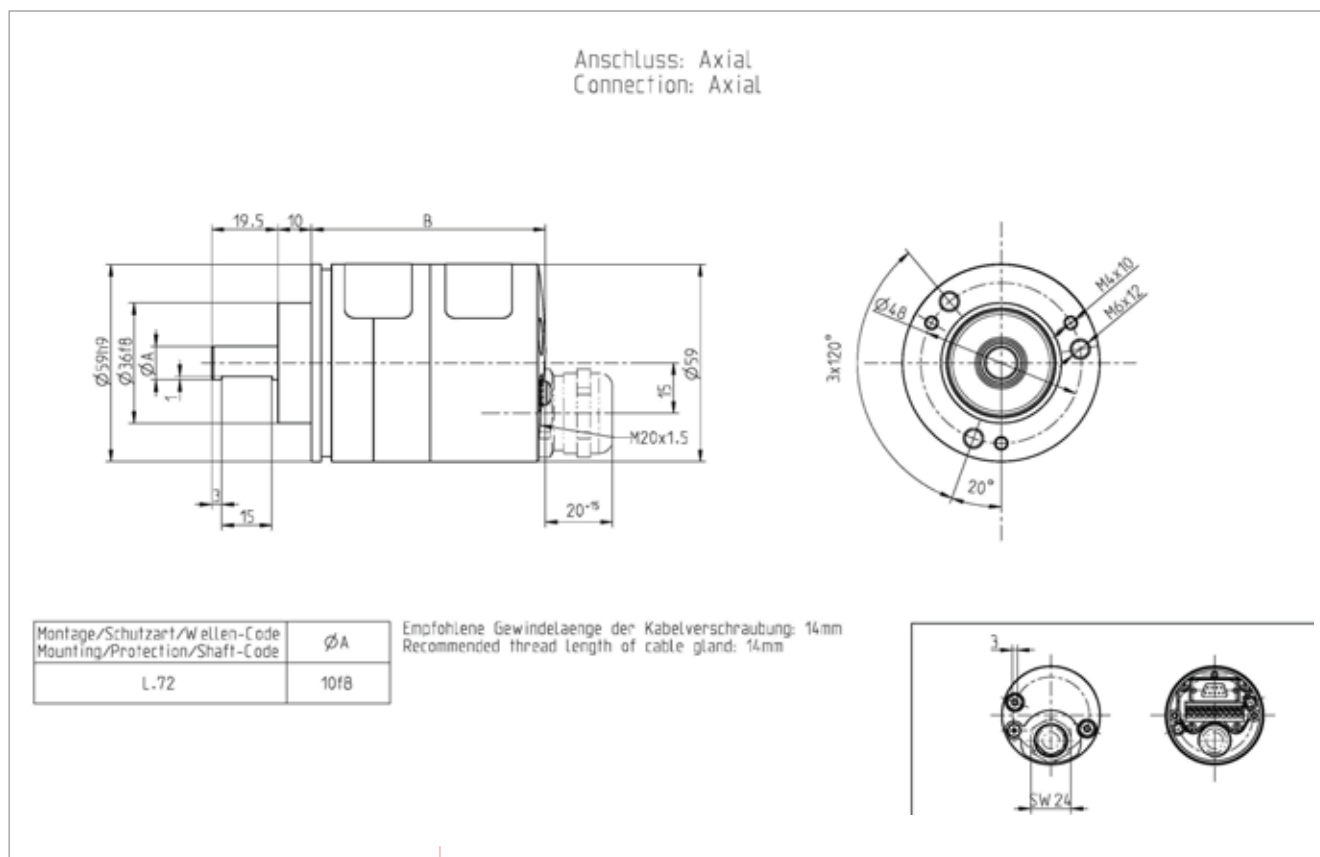
DIMENSIONED DRAWINGS



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DIMENSIONED DRAWINGS (continued)



ORDERING INFORMATION

Type	Resolution ¹	Supply voltage	Flange, Protection, Shaft	Interface	Connection ²
<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>
AX65	1212 12 Bit MT + 12 Bit ST 1612 16 Bit MT + 12 Bit ST	E DC 10 - 30 V	L.72 Synchro clamping, IP66/ 67, 10 mm	SG SSI Gray	0 1 x M20x1,5 screw thread, axial 1 1 x M20x1,5 screw thread, radial 2 2 x M20x1,5 screw thread, radial

¹ 13 Bit on request

² without cable gland