

SERIES AC110

ACURO

Absolute Encoder

Key Features

- Large 50mm Hollowshaft Available
- Integrated Diagnostic System
- Up to 22 bits of True Singleturn Absolute Positioning



SPECIFICATIONS

ELECTRICAL

Supply Voltage: -5%/ +10% DC 5 V; DC 10-30 V

Max. Current w/o Load: 120 mA

EMC: EN 61326 Class A

Resolution: Singleturn 11 - 19 Bit (22 Bit on request); Multiturn: 16 Bit

Output Code: Binary, Gray

Drives: Clock and Data / RS422

Incremental Signals: Optional Sine-Cosine 1 Vpp

Number of Pulses: 4096

3dB Limiting Frequency: 500 kHz

Alarm Output: Alarm bit (SSI Option), Warning and Alarm bit (BiSS)

ELECTRICAL CONNECTIONS

Cable Color	Cable Connector	Signal
brown ⁴	1	0 V (supply voltage)
pink	2	Data
yellow	3	Clock
—	4	N.C.
blue	5	Direction ¹
—	6	N.C.
—	7	N.C.
white ⁴	8	DC 5 V ³ / DC 10 - 30 V
—	9	N.C.
grey	10	Data
green	11	Clock
black	12	0 V-signal output ²
Screen		Shielded with housing

¹ Direction: + UB or unconnected = ascending code values with rotation cw

0 V = descending code values with rotation cw

² Connected with 0 V in the encoder. Use this output to lay

Direction on logical "0" if required.

³ Notice: when supply voltage = 5VDC or more, max. cable length is 10 m

⁴ Use only thin wires 0.14mm²

MECHANICAL

Housing Diameter: 110 mm

Shaft Diameter: 50 mm (Hub shaft)

Mounting of Shaft: Keyway, Rear clamping ring

Hubshaft Axial Endplay: ± 0.5 mm

Hubshaft Radial Runout: ± 0.05 mm

Max. Speed: IP40: 3600 rpm; IP50: 2000 rpm;

IP64: 1500 rpm

Torque: 15 Ncm

Shaft Material: Stainless Steel / Aluminum, ceramic coated

Housing Material: Aluminum

Weight approx.: 1000g (2.2lbs.)

Connection: Cable, radial; Cable 1.5 m with M23 connector (Conin), 12 pole, axial or radial

Recommended Data

Transfer Rate bei SSI

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

Maximum data transfer rate depends on cable length. For Clock / Clock and Data / Data. Use cable with twisted pairs in shield.

ENVIRONMENTAL

Operating Temperature: -20°C to +100°C (-20°F to 212°F)

Storage Temperature: -50°C to +80°C (-58°F to 176°F)

Vibration (DIN EN 60068-2-6): 100 m/s² (10 to 500 Hz)

Shock (DIN EN 60068-2-27):

1000 m/s² (6 ms)

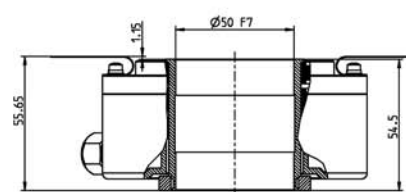
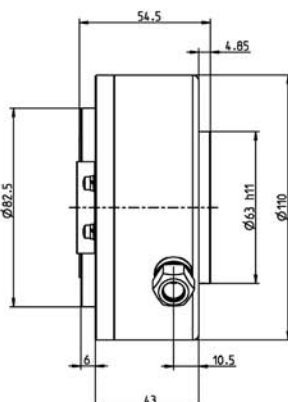
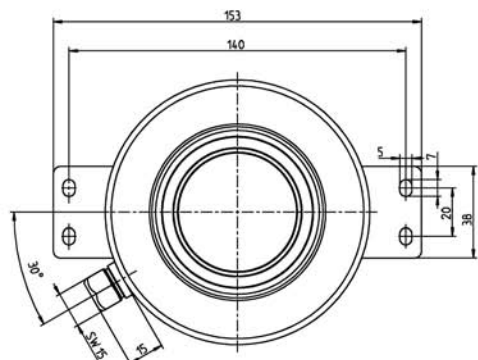
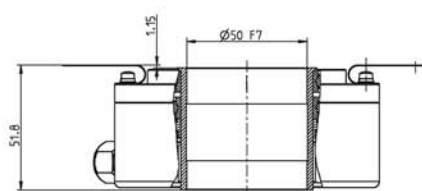
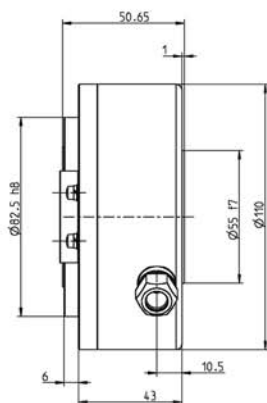
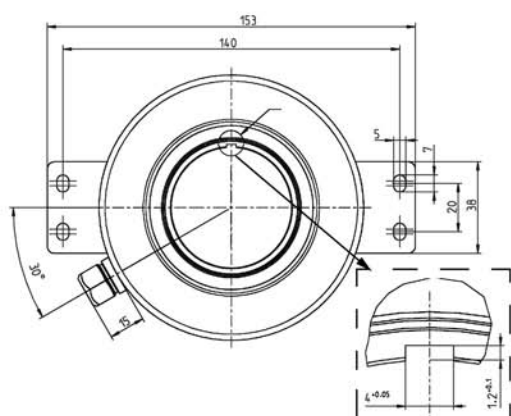
Enclosure Rating: (EN 60529) IP40 or IP64

Shaft Rating: (EN 60529) IP50 or IP64

Ordering Information

To order, complete the model number with code numbers from the table below:

Code 1: Model	Code 2: Resolution	Code 3: Supply Voltage	Code 4: Spring Tether	Code 5: Protection Class	Code 6: Shaft Mounting	Code 7: Shaft Size	Code 8: Interface	Code 9: Connection	Code 10: Cable Length
AC110/ 									
Ordering Information									
ACURO Series AC110 Absolute Encoder	0011	A 5 VDC	0 None	0 IP 40	K Keyway 4 x 1.2	50 50mm	SB SSI Binary	B Cable, radial, 1.5m	B5 1.5m
	0012	E 10-30 VDC	B With Spring Tether	1 IP 50	H Clamping Ring		SG SSI Gray		D0 3m
	0013			4 IP 64			BI BISS		F0 5m
	0014								K0 10m
	0017								
	0019								
	0022								



Satellite Locations:

- **North America:** North Carolina, South Carolina, Connecticut, Massachusetts, New York, Canada, British Virgin Islands
- **West Indies:** St. Kitts • **Europe:** United Kingdom, Italy, France, Germany, Spain, Slovakia
- **South America:** Brazil • **Asia:** China, Japan, Korea, Singapore

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