

# SERIES AD36

# ACURO™ brand

## Single- / Multi- Turn Absolute Encoder

**NEW!**

### Key Features

- Compact Dimensions Compatible with Size 15 Resolvers
- Up to 22 Bit Singleturn and 12 Bit True Multiturn Absolute Positioning
- Optional Sinewave 1Vp-p Output for Easy Integration Into Older Controls



## SPECIFICATIONS

### ELECTRICAL

**Supply Voltage:** 5 VDC -5 %/+10 % or 10 - 30 VDC

**Max. Current w/o Load:** Single-Turn: 50 mA;  
Multi-Turn: 100 mA

**Resolution Singleturn:** SSI: 13 Bit; Biss: 19 Bit

**Output Code:** Gray

**Lines/Drives:** Clock and Data / RS422

**Incremental Signals:** Sine-Cosine 1 Vpp

**Number of Increments:** 2,048

**3dB Limiting Frequency:** 500 kHz

**Absolute Accuracy:** ±35"

**Repeatability:** ±7"

**Alarm Output:** Alarm bit (SSI); Warning bit and alarm bit (BISS)

### MECHANICAL

**Housing Diameter:** 37.5 mm (1.48")

**Material Shaft/ Flange/ Housing:** Stainless steel/  
aluminum/ plastic

**Shaft Diameter:** 8 mm solid shaft

**Mounting:** Spring Tether (Hollow Shaft)

**Protection Class:** IP40 Housing & Shaft

**Shaft Speed (maximum):** 10,000 RPM (continuous), 12,000 RPM (peak)

**Torque:** 0.01 Ncm

**Moment of Inertia:** approx. 25 gcm<sup>2</sup>

**Shaft Load (solid-shaft):** Axial ≤ 5 N; Radial ≤ 10 N

**Shaft Load (hollowshaft):** Spring Tether Tolerance:  
Axial ±0.5mm; Radial ±0.05mm

**Weight ST/MT:** 80g (2.8 oz.) / 130g (4.6 oz.)

**Connections:** Cable, PCB connector, 12 pole

### ENVIRONMENTAL

**Vibration:** 100 m/s<sup>2</sup> (10 to 500 Hz)  
(IEC 68-2-6)

**Shock:** 1,000 m/s<sup>2</sup> for 6 msec duration  
(IEC 68-2-27)

**Operating Temperature:** -15°C to +120°C

**Storage temperature:** -15°C to +85°C (due to packaging)

## CONNECTIONS

PIN	1b	2b	3b	4b	5b	6b
Function	DC 5V / 7-30V (U <sub>p</sub> )	Clock	B -	0 V (U <sub>n</sub> )	A -	Data
Color	Yellow/Black	White	Red	White/Green	Yellow	Black
PIN	1a	2a	3a	4a	5a	6a
Function	Data	A +	0 V -Sen	B +	Clock	5V Sensor
Color	Violet	Green	Brown/Green	Blue	Brown	Red/Black

U<sub>p</sub> = power Supply

Sensor is connected to Power Supply and 0 V (U<sub>n</sub>)

Shield connected to case

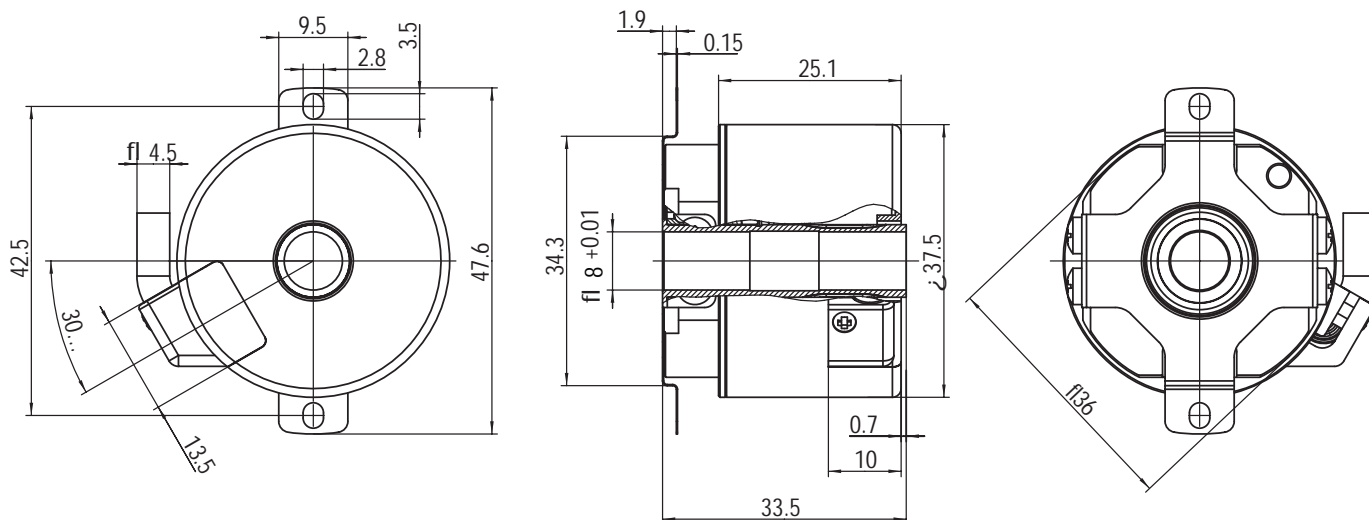
### Ordering Information

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

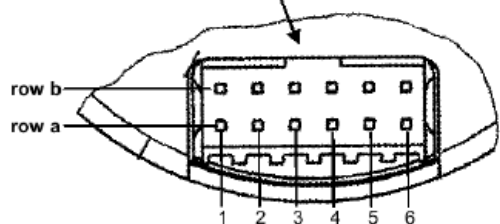
Code 1: Model	Code 2: Resolution	Code 3: Voltage	Code 4: Flange/Protection/Shaft	Code 5: Output	Code 6: Connection
<b>AD36</b>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> . <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
<b>AD36</b> ACURO Absolute Encoder	<b>0012</b> 12 Bit ST <b>0013</b> 13 Bit ST <b>0014</b> 14 Bit ST <b>0017</b> 17 Bit ST <b>0019</b> 19 Bit ST (Biss) <b>0022</b> 22 Bit ST <b>1213</b> 12 Bit MT+13 Bit ST <b>1217</b> 12 Bit MT+17 Bit ST <b>1219</b> 12 Bit MT+19 Bit ST (Biss) <b>1222</b> 12 Bit MT+22 Bit ST	<b>A</b> 5 VDC* <b>E</b> 7-30 VDC  * No Inverse polarity protection	<b>F.OC</b> Optional, Spring Tether, IP40, 8mm Through Hollow Shaft  <b>F.OR</b> Spring Tether, IP40, 8mm Hub Shaft	<b>BI</b> BiSS (1 Vss redundant, optional)  <b>SC</b> SSI Gray +1Vpp	<b>O</b> PCB Connector, 12 pole <b>B</b> Cable Radial, 0.5 m

### Dimensions (mm)

#### THROUGH HOLLOW SHAFT



PCB-Connector (12p)



12 pin PCB connector manufacture Berg, type Minitek



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