

# SERIES AR62/AR63

# ACURO™ brand

## Magnetic Absolute Encoder

### Key Features

- 12 Bit Single-Turn Resolution, up to 16 Bit Multi-Turn
- Oversized Bearings for up to 3x Life of Standard Absolute Encoders
- Wide -40° to 100°C Temperature Range
- Submersible — IP69k Sealing Available
- Rated to 200g Shock, 20g Vibration for Harsh Environments
- Stainless Steel or Aluminum Housing



## SPECIFICATIONS

### ELECTRICAL

**Supply voltage:** 5VDC, 10-30VDC, or 17-30VDC (see "Ordering Information")

**EMC:** EN 61326 (external protective circuit required)

**Resolution singleturn:** 12 Bit

**Resolution multiturn:** 12, 13, 16 Bit

**Absolute accuracy:** ±0.6°

**Repeatability:** ±0.2°

**Parametrization:** Preset

### MECHANICAL

**Housing diameter:** 58 mm

**Mounting depth:** 32 mm

**Shaft diameter:** 3/8", 10 mm

**Flange:** Synchro clamping or 2.5" Square flange

**Protection Class** (EN 60529): Housing & Shaft, IP67 or IP69k

**Shaft load:** axial 300 N max.; radial 300 N max.

### ENVIRONMENTAL

**Shaft speed (maximum):** 5000 rpm

**Vibration resistance:** (DIN EN 60068-2-6)

200 m/s<sup>2</sup>

**Shock resistance:** (DIN EN 60068-2-27) 2000 m/s<sup>2</sup> (6 ms)

**Operating temperature:** -40 °C to +100 °C

**Connection:** Cable, radial; M12 connector, radial

### ELECTRICAL CONNECTIONS – BiSS / SSI

| Cable Color | PIN    | Signal            |
|-------------|--------|-------------------|
| Yellow      | 6      | Clock             |
| Pink        | 5      | Data              |
| Green       | 4      | Clock             |
| Grey        | 8      | Data              |
| White       | 1      | UB                |
| Brown       | 2      | 0V                |
| Red         | 3      | Preset (set to 0) |
| Screen      | Screen | Screen            |

### ELECTRICAL CONNECTIONS – CANopen

| Color cable | PIN    | Signal        |
|-------------|--------|---------------|
| Yellow      | 6      | CAN in+       |
| Green       | 4      | CAN in-       |
| Pink        | 3      | CAN out+      |
| Grey        | 7      | CAN out-      |
| Blue        | n.c.   | n.c.          |
| Red         | n.c.   | n.c.          |
| White       | 1      | UB            |
| Brown       | 2      | 0 V           |
| Screen      | Screen | Screen Screen |

### ELECTRICAL CONNECTIONS – Analog

| Cable Color         | PIN    | Signal                                    |
|---------------------|--------|-------------------------------------------|
| Pink                | 6      | 0 to 10 V (max. 5mA)                      |
| Blue                | 7      | 0 to 20 mA or 4 to 20 mA (current output) |
| Grey                | 5      | AGND                                      |
| Red                 | 8      | preset (set to 0)                         |
| White               | 1      | UB                                        |
| Brown               | 2      | 0 V                                       |
| Yellow <sup>1</sup> | 4      | Diagnostic 1                              |
| Green <sup>1</sup>  | 3      | Diagnostic 2                              |
| Screen              | Screen | Screen                                    |

1. Diagnostic signals only for service purposes. The cable wires have to be isolated.

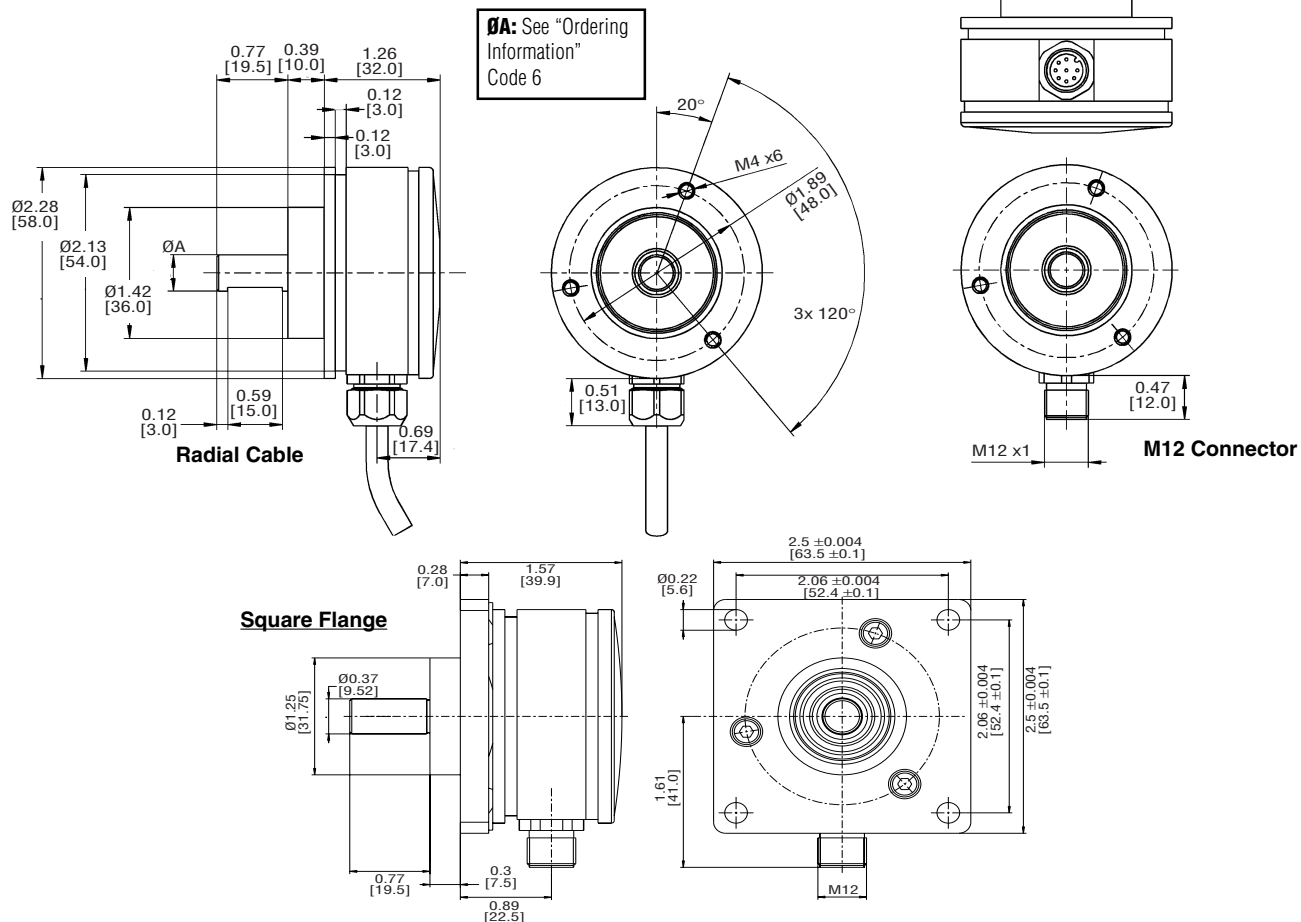
## Ordering Information

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

| Code 1:<br>Model         | Code 2:<br>Resolution                                                                                                                                                | Code 3:<br>Voltage                                                             | Code 4:<br>Mounting           | Code 5:<br>Protection           | Code 6:<br>Shaft Size                                            | Code 7:<br>Interface                                                                                           | Code 8:<br>Connection                                                           | Code 9:<br>Cable Length                                                                                                                                                  |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------|---------------------------------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ordering Information     |                                                                                                                                                                      |                                                                                |                               |                                 |                                                                  |                                                                                                                |                                                                                 |                                                                                                                                                                          |
| <b>AR62</b>              | <b>12</b>                                                                                                                                                            |                                                                                |                               |                                 |                                                                  |                                                                                                                |                                                                                 |                                                                                                                                                                          |
| <b>AR62</b><br>Aluminum  | <b>0012</b><br>12 bit single-turn                                                                                                                                    | <b>A</b> 5 VDC<br><b>E</b> 10-30VDC                                            | <b>L</b> Synchro,<br>Clamping | <b>7</b> IP67<br><b>9</b> IP69k | <b>2</b> 10mm<br>"2" is<br>available<br>only when<br>Code 4 is L | <b>BI</b> BiSS<br><b>SG</b> SSI-Gray<br><b>SB</b> SSI-Binary<br><b>OL</b> CAN Open                             | <b>B</b> Radial Cable<br>Available when<br>Code 1 is<br>AR62 and<br>code 5 is 7 | <b>Blank</b> 1.5m<br><b>DO</b> 3m<br><b>FO</b> 5m<br><b>KO</b> 10m<br><b>PO</b> 15m<br><b>UO</b> 20m<br><b>VO</b> 25m<br><b>WO</b> 30m<br><b>XO</b> 40m<br><b>YO</b> 50m |
| <b>AR63</b><br>Stainless | <b>1212</b><br>12 bit single turn, 12 bit multi-turn<br><b>1312</b><br>12 bit single turn, 13 bit multi-turn<br><b>1612</b><br>12 bit single turn, 16 bit multi-turn | "F" is<br>available<br>only when<br>Code 7 is AV<br>or A4<br><b>F</b> 17-30VDC | <b>Q</b> Square<br>Flange     |                                 | <b>6</b> 3/8"<br>"6" is<br>available<br>only when<br>Code 4 is Q | Available only when<br>Code 2 is 0012,<br>1212, or 1612<br><b>AV</b> Analog, 0-10V<br><b>A4</b> Analog, 4-20mA | <b>8</b> M12 radial<br>connector,<br>8-pin                                      |                                                                                                                                                                          |

## DIMENSIONS inch [mm]

### Synchro Clamping



### Satellite Locations:

North America: North Carolina, South Carolina, Connecticut, Massachusetts, New York, Canada, St. Kitts • Europe: United Kingdom, Italy, France, Germany, Spain, Slovakia  
• Latin America: Brazil • Asia: China, Japan, Korea, Singapore

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