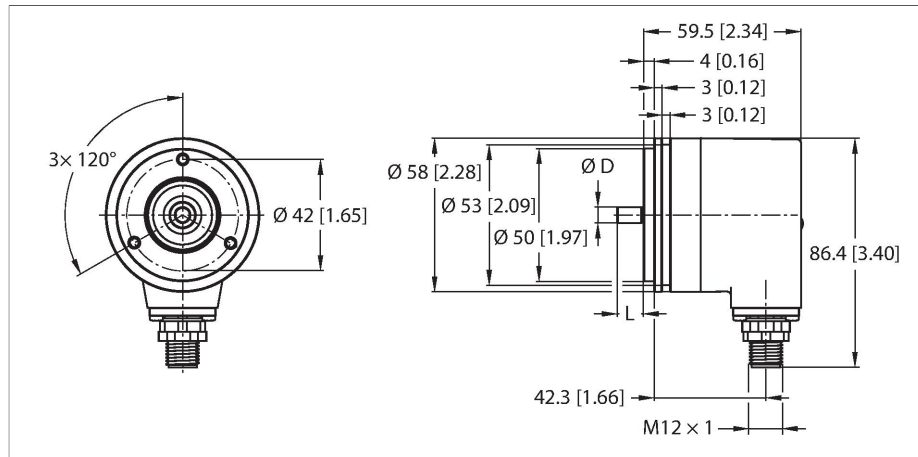


# RES-186S6S-3C13B-H1181

## Absolute Rotary Encoder - Single-Turn Industrial Line



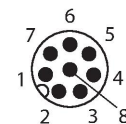
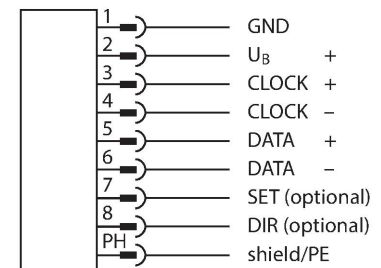
### Features

- Synchro flange, Ø 58 mm
- Solid shaft, Ø 6 mm × 10 mm
- Optical measuring principle
- Shaft material: stainless steel
- Protection class IP67 on housing and shaft side
- -40...+85 °C
- Max. 8000 rpm (continuous operation 5000 rpm)
- 10...30 VDC
- SSI, gray
- M12 × 1 male, 8-pin
- 360° resolved in 13 bit (8192 positions)

### Technical data

|                                           |                         |
|-------------------------------------------|-------------------------|
| Type                                      | RES-186S6S-3C13B-H1181  |
| ID                                        | 100016317               |
| Measuring principle                       | Optical                 |
| <b>General data</b>                       |                         |
| Max. Rotational Speed                     | 8000 rpm                |
| Starting torque                           | < 0.03 Nm               |
| Measuring range                           | 0...360 °               |
| Absolute accuracy                         | ± 0.015 ° At 25 °C      |
| Output type                               | Absolute singleturn     |
| Resolution singleturn                     | 13 Bit                  |
| <b>Electrical data</b>                    |                         |
| Operating voltage                         | 10...30 VDC             |
| No-load current                           | 45 mA                   |
| Output current                            | ≤ 20 mA                 |
| Short-circuit protection                  | yes                     |
| Wire breakage/Reverse polarity protection | yes                     |
| Signal level high                         | typ. 3.8 V              |
| Signal level low                          | typ. 1.3 V (20 mA load) |
| Communication protocol                    | SSi                     |
| Output function                           | Gray coded              |
| <b>Mechanical data</b>                    |                         |
| Design                                    | Solid shaft             |
| Flange type                               | Synchro flange          |
| Flange diameter                           | Ø 58 mm                 |
| Shaft Type                                | Solid shaft             |

### Wiring diagram



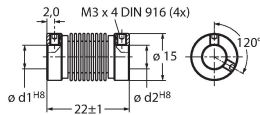
Technical data

|                                     |                        |
|-------------------------------------|------------------------|
| Shaft diameter D [mm]               | 6                      |
| Shaft Length L [mm]                 | 10                     |
| Shaft material                      | Stainless steel        |
| Housing material                    | Die-cast zinc          |
| Electrical connection               | Connector, M12 × 1     |
| Axial shaft load                    | 40 N                   |
| Radial shaft load                   | 80 N                   |
| Environmental conditions            |                        |
| Ambient temperature                 | -40...+85 °C           |
| Vibration resistance (EN 60068-2-6) | 100 m/s², 55...2000 Hz |
| Shock resistance (EN 60068-2-27)    | 2500 m/s², 6 ms        |
| Protection class                    | IP67                   |
| Protection class shaft              | IP67                   |

Accessories

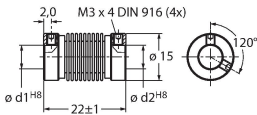
RCS-15-06-06 1545362

Bellows coupling, outer diameter:  
15 mm, bore diameter: 6 mm/6 mm



RCS-15-08-06 1545361

Bellows coupling, outer diameter:  
15 mm, bore diameter: 8 mm/6 mm



RCS-19-06-06 1545360

Bellows coupling, outer diameter:  
19 mm, bore diameter: 6 mm/6 mm

