

RES-182SA0C-3C13B-H1181  
Absolute Rotary Encoder - Singleturn  
Industrial Line



Technical data

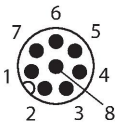
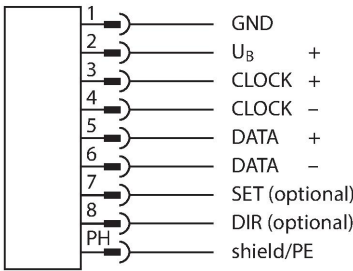
|                                        |                         |
|----------------------------------------|-------------------------|
| Type                                   | RES-182SA0C-3C13B-H1181 |
| ID                                     | 100016338               |
| Measuring principle                    | Magnetic                |
| General data                           |                         |
| Max. Rotational Speed                  | 4000 rpm                |
| Starting torque                        | < 0.01 Nm               |
| Measuring range                        | 0...360 °               |
| Absolute accuracy                      | ± 1 ° At 25 °C          |
| Output type                            | Absolute singleturn     |
| Resolution singleturn                  | 13 Bit                  |
| Electrical data                        |                         |
| Operating voltage U <sub>B</sub>       | 10...30 VDC             |
| No-load current                        | ≤ 30 mA                 |
| Output current                         | ≤ 30 mA                 |
| Short-circuit protection               | yes                     |
| Wire break/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              |
| Mechanical data                        |                         |
| Flange type                            | Clamping flange         |
| Flange diameter                        | Ø 36 mm                 |
| Shaft Type                             | Solid shaft             |
| Shaft diameter D (mm)                  | 6.35                    |
| Shaft Length L [mm]                    | 12.5                    |



Features

- Clamping flange, Ø 36 mm
- Solid shaft, Ø 6.35mm × 12.5mm
- Magnetic measuring principle
- Shaft material: stainless steel
- Protection class IP67 on housing and shaft side
- -40...+85 °C
- Max. 4000 rpm (continuous operation 2000 rpm)
- 10...30 VDC
- SSI, gray
- M12 × 1 male connector, 8-pin
- 360° resolved in 13 bit (8192 positions)

Wiring diagram



## Technical data

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Shaft material                      | Stainless steel                     |
| Housing material                    | Die-cast zinc                       |
| Electrical connection               | Connector, M12 × 1                  |
| Axial shaft load                    | 20 N                                |
| Radial shaft load                   | 40 N                                |
| Environmental conditions            |                                     |
| Ambient temperature                 | -40...+85 °C                        |
| Vibration resistance (EN 60068-2-6) | 300 m/s <sup>2</sup> , 10...2000 Hz |
| Shock resistance (EN 60068-2-27)    | 2500 m/s <sup>2</sup> , 6 ms        |
| Protection class                    | IP67                                |
| Protection class shaft              | IP67                                |