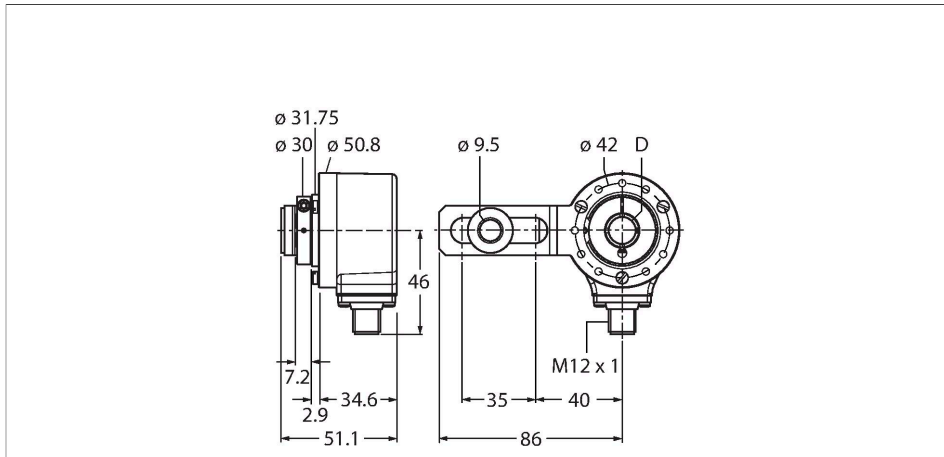


RI-12HA3S1-2B256-H1181

Incremental Encoder

Industrial Line



Technical data

| | |
|-------------------------------------------|--------------------------------------|
| Type | RI-12HA3S1-2B256-H1181 |
| ID | 1545511 |
| Measuring principle | Optical |
| General data | |
| Max. Rotational Speed | 6000 rpm |
| Moment of inertia of the rotor | 6×10^{-6} kgm ² |
| Starting torque | < 0.05 Nm |
| Output type | Incremental |
| Resolution, incremental | 256 ppr |
| Electrical data | |
| Operating voltage | 10...30 VDC |
| No-load current | 100 mA |
| Output current | ≤ 30 mA |
| Short-circuit protection | yes |
| Wire breakage/Reverse polarity protection | yes |
| Pulse frequency max. | 300 kHz |
| Signal level high | min. $U_B - 1$ V |
| Signal level low | max. 0.5 V |
| Output function | Push-Pull/HTL, with inverted signals |
| Mechanical data | |
| Design | Hollow shaft |
| Flange type | Flange with mounting element |
| Shaft Type | Hollow shaft |

Features

- Flange with tether arm for 40-75mm mounting diameters
- Hollow shaft, $\varnothing 1/2"$
- Optical measuring principle
- Shaft material: stainless steel
- Protection class IP67 on housing and shaft side
- -40...+85 °C
- Max. 6000 rpm (continuous operation 3000 rpm)
- 10...30 VDC
- Male connector, M12 x 1, 8-pole
- Push-pull, with inverted signals
- Pulse frequency max. 300 kHz
- 256 pulses per revolution

Wiring diagram

| | | |
|----|--------|---|
| 1 | GND | |
| 2 | U_B | + |
| 3 | A | |
| 4 | A inv. | |
| 5 | B | |
| 6 | B inv. | |
| 7 | 0 | - |
| 8 | 0 inv. | - |
| PH | shield | |

Technical data

| | |
|-------------------------------------|-------------------------------------|
| Shaft material | Stainless steel |
| Housing material | Die-cast zinc |
| Electrical connection | Connector, M12 × 1 |
| | 8-pin |
| Axial shaft load | 40 N |
| Radial shaft load | 80 N |
| Environmental conditions | |
| Ambient temperature | -40...+85 °C |
| Vibration resistance (EN 60068-2-6) | 300 m/s ² , 10...2000 Hz |
| Shock resistance (EN 60068-2-27) | 3000 m/s ² , 6 ms |
| Protection class | IP67 |
| Protection class shaft | IP67 |

