

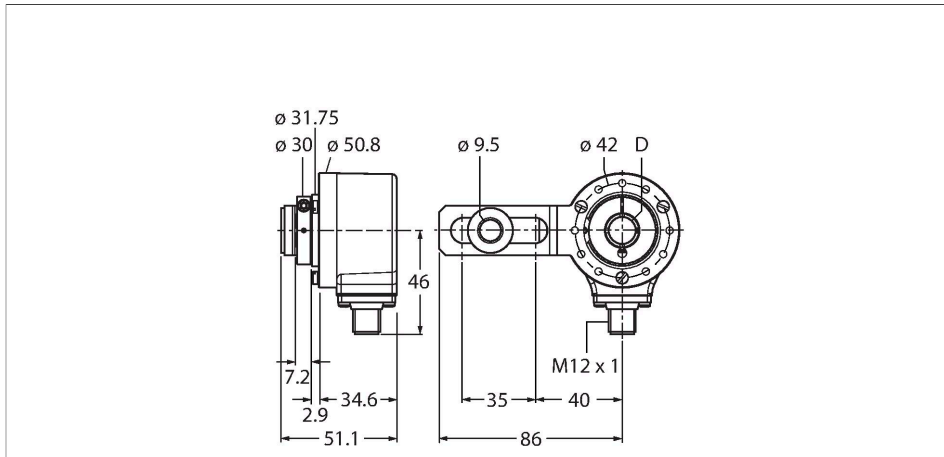
# RI-12HA1S1-4A512-H1181

## Incremental Hollow Shaft Rotary Encoder

### Industrial Line

### Features

- Flange with tether arm for 40-75mm mounting diameters
- Hollow shaft, Ø 3/8"
- 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)
- 5 VDC
- Male connector, M12 x 1, 8-pole
- RS422 with inverted signals
- Pulse frequency max. 300 kHz
- 12 pulses per revolution



### Technical data

Type	RI-12HA1S1-4A512-H1181
ID	100005092
Measuring principle	Optical
<b>General data</b>	
Max. rotational speed	6000 rpm
Moment of inertia of the rotor	$6 \times 10^{-6}$ kgm <sup>2</sup>
Starting torque	< 0.05 Nm
Output type	Incremental
Resolution, incremental	12 ppr
<b>Electrical data</b>	
Operating voltage U <sub>s</sub>	5 VDC
No-load current	≤ 90 mA
Output current	≤ 20 mA
Short-circuit protection	yes
Wire break/reverse polarity protection	no
Pulse frequency max.	300 kHz
Signal level high	min. 2.5 V
Signal level low	max. 0.5 V
Output function	RS422, with inverted signals
<b>Mechanical data</b>	
Flange type	Flange with mounting element
Shaft Type	Hollow shaft
Shaft diameter D (mm)	9.525

## Technical data

Shaft diameter D	0.375 in
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
<b>Environmental conditions</b>	
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)	3000 m/s <sup>2</sup> , 6 ms
Protection class	IP67
Protection class shaft	IP67