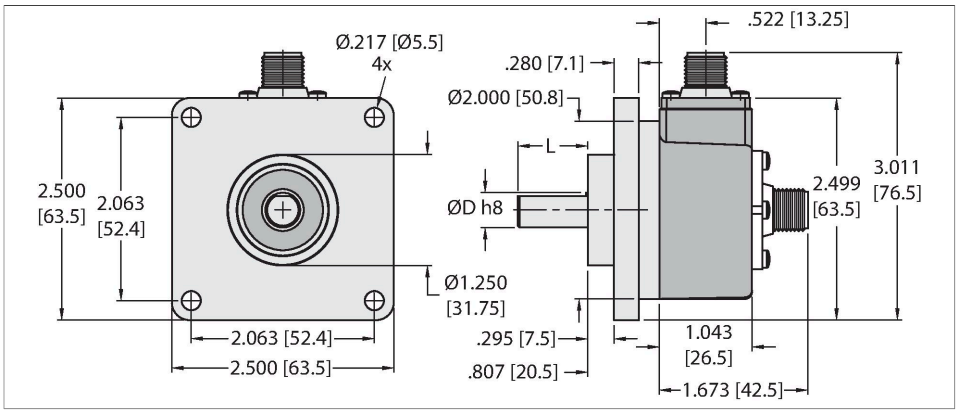
RI-10SA1R-2K2000-H1181
Incremental Shaft Encoder
Industrial Line



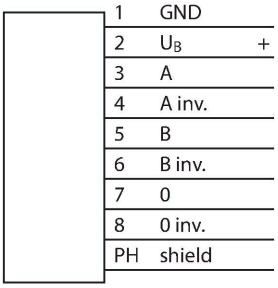
Technical data

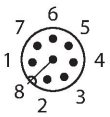
Type	RI-10SA1R-2K2000-H1181
ID	100044564
Measuring principle	Optical
General data	
Max. Rotational Speed	6000 rpm
Moment of inertia of the rotor	1.8 × 10^{-6} kgm²
Starting torque	< 0.05 Nm
Output type	Incremental
Resolution incremental	2000 ppr
Electrical data	
Operating voltage U_B	5…30 VDC
No-load current	≤ 100 mA
Output current	≤ 20 mA
Short-circuit protection	yes
Wire break/reverse polarity protection	no
Pulse frequency max.	300 kHz
Signal level high	min. U_B - 2 V
Signal level low	max. 0.5 V
Output function	Push-Pull 7272, with inverted signals
Mechanical data	
Flange type	Rectangular flange
Flange diameter	Ø 63.5 mm
Shaft Type	Solid shaft
Shaft diameter D	0.375 in

Features

- Square flange, Ø 63.5 mm
- Solid shaft, Ø 3/8” x 7/8”
- 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…30 VDC
- Male connector, M12 x 1 , 8-pole
- Push-pull, with inverted signals
- Pulse frequency max. 300 kHz
- 2000 pulses per revolution

Wiring diagram





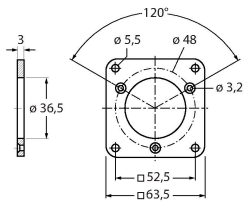
RI-10SA1R-2K2000-H1181| 01/22/2025 20-43 | technical changes reserved

Technical data

Shaft length (L)	0.875 in
Shaft material	Stainless steel
Housing material	Die-cast zinc
Electrical connection	Connector, M12 × 1
	8-pin
Axial shaft load	50 N
Radial shaft load	100 N
Environmental conditions	
Ambient temperature	-40…+85 °C
Vibration resistance (EN 60068-2-6)	300 m/s², 10…2000 Hz
Shock resistance (EN 60068-2-27)	3000 m/s², 6 ms
Protection class	IP67
Protection class shaft	IP67

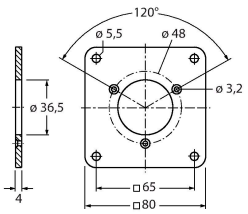
Accessories

RFA-2 1544631



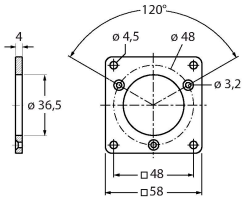
Aluminium flange adapter, rectangular, for solid shaft encoders with clamping flange; edge length 63.5 mm; 3 mm thick

RFA-13 1544642



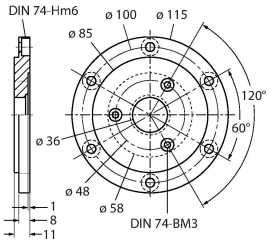
Aluminium flange adapter, rectangular, for solid shaft encoders with clamping flange; edge length 80 mm; 4 mm thick

RFA-1 1544630



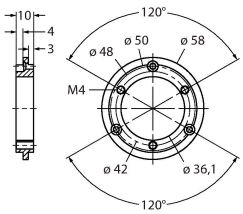
Aluminium flange adapter, rectangular, for solid shaft encoders with clamping flange; edge length 58 mm; 4 mm thick

RFA-4 1544633



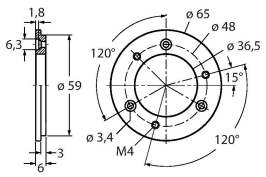
Euro flange – aluminium flange adapter for solid shaft encoders, Ø 115 mm; reference diameter 100 mm; adapts 58 mm clamping flange to Euro flange

RFA-6 1544635



Aluminium flange adapter for solid shaft encoders with clamping flange, Ø 58 mm; adapts clamping flange to synchro flange

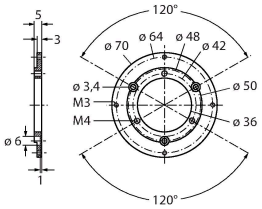
RFA-7 1544636



Aluminium flange adapter for solid shaft encoders, Ø 65 mm; adapts to Ø 65 mm flange and 48 mm reference diameter

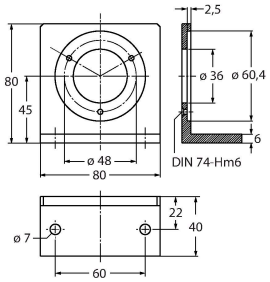
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RFA-8	1544637



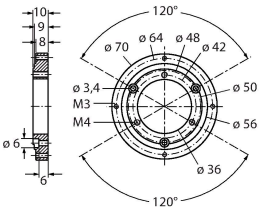
Aluminium flange adapter for solid shaft encoders with clamping flange, Ø 70 mm; thickness 4 mm, adapts to Ø 70 mm flange

RFA-9	1544638



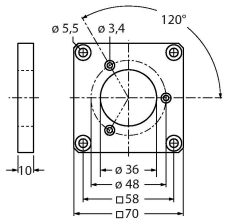
Aluminium angle flange for solid shaft encoders with Ø 58 mm clamping flange

RFA-11	1544640



Aluminium flange adapter for solid shaft encoders with clamping flange, Ø 70 mm; thickness 10 mm, adapts to Ø 70 mm flange

RFA-12	1544641



Aluminium flange adapter, rectangular, for solid shaft encoders with clamping flange; edge length 70 mm; 10 mm thick

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