

RI-12IA4S1-2K2048-10MIL

Incremental Hollow Shaft Rotary Encoder

Industrial Line

Technical data

Type	RI-12IA4S1-2K2048-10MIL
ID	200006602
Measuring principle	Optical
General data	
Max. rotational speed	12,000 rpm
Moment of inertia of the rotor	$6 \times 10^{-6} \text{ kgm}^2$
Starting torque	$< 0.05 \text{ Nm}$
Output type	Incremental
Resolution, incremental	2048 ppr
Electrical data	
Operating voltage U_B	5...30 VDC
No-load current	$\leq 100 \text{ mA}$
Output current	$\leq 20 \text{ mA}$
Short-circuit protection	yes
Wire break/reverse polarity protection	no
Pulse frequency max.	300 kHz
Signal level high	min. $U_B - 2 \text{ V}$
Signal level low	max. 0.5 V
Output function	Push-Pull 7272, with inverted signals
Mechanical data	
Flange type	Flange with stator coupling
Flange diameter	$\varnothing 65 \text{ mm}$
Shaft Type	Hollow shaft
Shaft diameter D (mm)	15.89
Shaft material	Stainless steel
Housing material	Aluminium
Electrical connection	Connector
	MIL, 10-pin
Axial shaft load	40 N
Radial shaft load	80 N
Environmental conditions	
Ambient temperature	$-40...+85 \text{ }^\circ\text{C}$
Vibration resistance (EN 60068-2-6)	10 g (100 m/s ²), 10...2000 Hz

Features

- Receptacle with stator coupling, $\varnothing 63 \text{ mm}$
- Hollow shaft, $\varnothing 15 \text{ mm}$
- Optical measuring principle
- Shaft material: stainless steel
- Protection class IP65 on shaft side
- $-40...+85 \text{ }^\circ\text{C}$
- Max. 12000 rpm (continuous operation 6000)
- 5...30 VDC
- Male connector MIL, 10-pole
- Push-pull 7272, with inverted signals
- Pulse frequency max. 300 kHz
- 2048 pulses per revolution

Technical data

Shock resistance (EN 60068-2-27)	2500 m/s ² , 6 ms
Protection class	IP65
Protection class housing	IP65
Protection class shaft	IP65