

Encoder RSI 24C

RS Stock No. 7950937
RS Stock No. 7950946
RS Stock No. 7950949
RS Stock No. 7950943
RS Stock No. 7950952
RS Stock No. 7950955
RS Stock No. 7950959
RS Stock No. 7950968



- very compact construction for use in harsh conditions
- permissible bearing loads similar to our "big encoders"
- Hall effect based signal generation

Resolution

Max. pulses per revolution 50 PPR, 100 PPR, 128 PPR, 256 PPR PPR

Mechanical Data

Housing

Flange synchro flange
Flange material aluminium
Housing cap aluminium
Housing Ø 24 mm

Shaft(s)

Shaft material stainless steel
Starting torque approx. 0.2 Ncm at ambient temperature

Shaft Ø 6 mm
Shaft length L: 12 mm

Max. Permissible shaft loading radial 80 N
Max. Permissible shaft loading axial 50 N

Bearings

Bearings type 2 precision ball bearings
Nominale service life 0.55 x 10⁹ revs. at 100 % rated shaft load
8.5 x 10¹⁰ revs. at 40 % rated shaft load
6.8 x 10¹¹ revs. at 20 % rated shaft load
Max. operating speed 12000 rpm

Machinery Directive: basic data safety integrity level

MTTF_d 200 a
Mission time (TM) 25 a
Nominale service life (L10h) 6.8 x 10¹¹ revs. at 20 % rated shaft load and 12000 rpm
Diagnostic coverage (DC) 0 %

Electrical Data

Power supply/Current consumption 5 VDC up to 30 VDC: max. 40 mA
Output circuit HTL
HTL, inv.

Pulse frequency

HTL ≤ 256 ppr: max. 200 kHz

Channels

ABN
and inverted signals

Load

max. 30 mA / channel

Accuracy

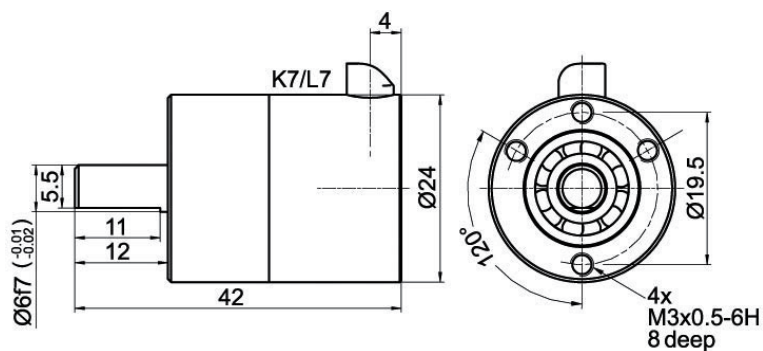
Phase offset at 1 ppr up to 256 ppr: 90° ± max. 10° of the pulse length
pulse-/pause-ratio at 1 ppr up to 128 ppr: 50 % ± max. 10 %
at 256 ppr: 50 % ± max. 20 %

General Data

Weight approx. 50 g
Connections cable or connector outlet
Protection rating (EN 60529) IP65 all around
Operating temperature -20 °C up to +80 °C
Storage temperature -20 °C up to +80 °C



Cable connection K7 with 2 m cable



Description

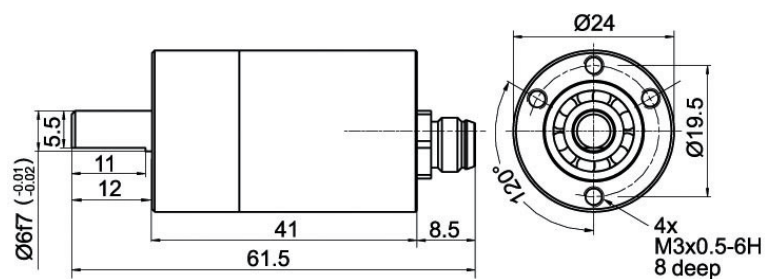
ABN inv. poss.

K7 radial, shield not connected

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Assignments		
	K7	K7
Circuit	N30	M30
GND	WH	WH
+UB	BN	BN
A	GN	GN
B	YE	YE
N	GY	GY
Light reserve warning	-	-
A inv.	-	RD
B inv.	-	BK
N inv.	-	BU
Shield	flex	flex

Connector SK6, 6-pin



Description

ABN inv. poss.

SK6 axial, 6-pin, Connector connected to encoder housing

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Assignments	
	SK6
	6-pin
	
Circuit	N30
GND	3
+UB	2
A	4
B	5
N	1
Light reserve warning	-
A inv.	-
B inv.	-
N inv.	-
n. c.	6
Shield	-



RS Stock No.	PPR		
7950937	50	5 - 30 VDC, HTL	Connector 6-pin
7950946	100		
7950949	128		
7950943	256		
7950952	50	5 - 30 VDC, HTL, inv.	Cable
7950955	100		
7950959	128		
7950968	256		