

Datasheet

Encoder RSI 58B



RS Stock No. 7951031
RS Stock No. 7951040
RS Stock No. 7951043
RS Stock No. 7951047
RS Stock No. 7951056
RS Stock No. 7951059
RS Stock No. 7951053
RS Stock No. 7951062
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RS Stock No. 7951071
RS Stock No. 7951075
RS Stock No. 7951084
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RS Stock No. 7951081
RS Stock No. 7951090
RS Stock No. 7951093
RS Stock No. 7951097
RS Stock No. 7951107
RS Stock No. 7951100
RS Stock No. 7951104

Resolution

Max. pulses per revolution up to 5000 PPR
PPR

Mechanical Data

Housing

Flange	clamping flange
Flange material	aluminium
Housing cap	die cast aluminium, powder coated
Housing	Ø 58 mm
Cam mounting	pitch 69 mm

Shaft(s)

Shaft material	stainless steel
Starting torque	approx. 1 Ncm at ambient temperature

Shaft	Ø 10 mm
Shaft length	L: 20 mm
Max. Permissible shaft loading radial	220 N
Max. Permissible shaft loading axial	120 N

Bearings

Bearings type	2 precision ball bearings
Nominal service life	1 x 10 ⁹ revs. at 100 % rated shaft load 1 x 10 ¹⁰ revs. at 40 % rated shaft load 1 x 10 ¹¹ revs. at 20 % rated shaft load
Max. operating speed	8000 rpm

Machinery Directive: basic data safety integrity level

MTTF _d	200 a
Mission time (TM)	25 a
Nominal service life (L10h)	1 x 10 ¹¹ revs. at 20 % rated shaft load and 8000 rpm
Diagnostic coverage (DC)	0 %

- Robust construction for industrial use
- Housing cap die cast aluminium, with particularly eco-friendly powder coating
- Up to 5000 PPR by use of high grad electronics
- Protection to IP67, shaft sealed to IP65
- High electrical immunity
- Full connection protection with 10 VDC up to 30 VDC

Electrical Data

Power supply/Current consumption	5 VDC up to 30 VDC: max. 70 mA 10 VDC up to 30 VDC: max. 100 mA
Output circuit	HTL, inv.
Pulse frequency	HTL ≤ 5000 ppr: max. 200 kHz
Channels	ABN and inverted signals
Load	max. 40 mA / channel
Circuit protection	10 VDC up to 30 VDC, HTL only

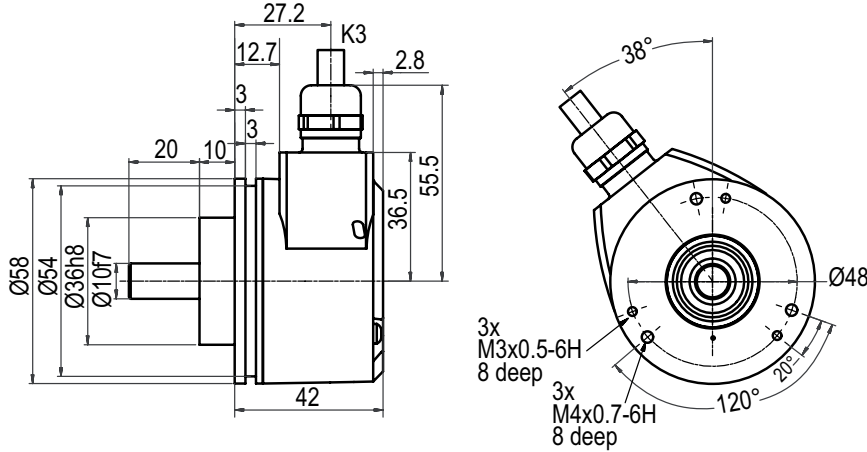
Accuracy

Phase offset	90° ± max. 7.5 % of the pulse length
pulse-/pause-ratio	50 % ± max. 7 %

General Data

Weight	approx. 250 g
Connections	cable or connector outlet
Protection rating (EN 60529)	IP67, shaft sealed to IP65
Operating temperature	Connector: -20 °C up to +85 °C, cable: -20 °C up to -80 °C
Storage temperature	Connector: -30 °C up to +85 °C, cable: -20 °C up to +80 °C

Cable connection K3 with 2 m cable



Description

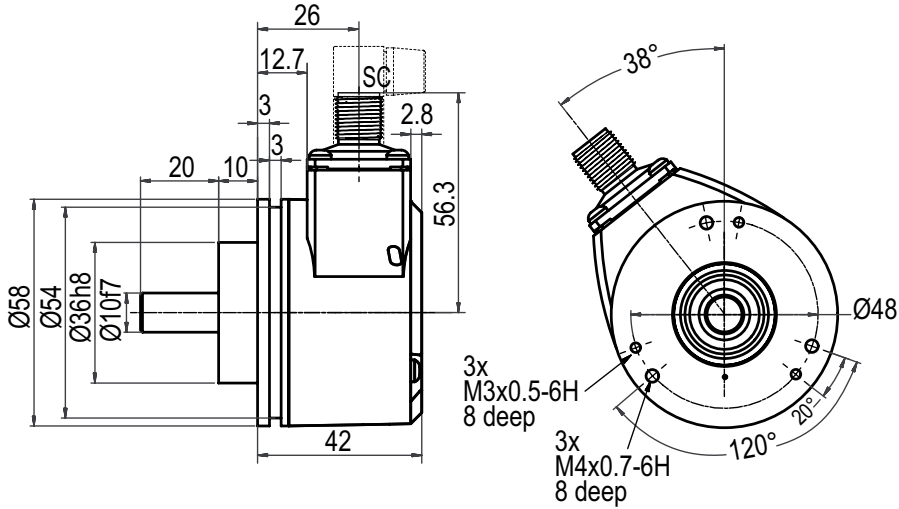
ABN inv. poss.

K3 radial, shield not connected

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Assignments	
	K3
Circuit	R24 R30
GND	WH
+UB	BN
A	GN
B	YE
N	GY
Light reserve warning	-
A inv.	RD
B inv.	BK
N inv.	VT
Shield	flex

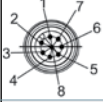
Sensor-connector (M12x1) SC, 8-pin



Description

ABN inv. poss.

SC8 radial, 8-pin, Connector connected to encoder housing

Assignments	
	SC8
	8-pin
	
Circuit	R24 R30
GND	1
+UB	2
A	3
B	4
N	5
Light reserve warning	-
A inv.	6
B inv.	7
N inv.	8
n. c.	-
Shield	-



RS Stock No.	PPR		
7951031	50	5 - 30 VDC, HTL, inv.	Connector 8-pin
7951040	200		
7951043	256		
7951047	360		
7951056	500		
7951059	512		
7951053	1024		
7951062	2048		
7951065	3600	10 - 30 VDC, HTL, inv.	
7951069	4096		
7951078	5000		
7951071	50	5 - 30 VDC, HTL, inv.	Cable
7951075	200		
7951084	256		
7951087	360		
7951081	500		
7951090	512		
7951093	1024		
7951097	2048		
7951107	3600	10 - 30 VDC, HTL, inv.	
7951100	4096		
7951104	5000		