

# Datasheet

## Encoder RSI 58A



### Resolution

Max. pulses per revolution PPR	up to 5000 PPR
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### Mechanical Data

#### Housing

Flange	synchro 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. 0.5 Ncm at ambient temperature

Shaft	Ø 6 mm
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Shaft length	L: 12 mm
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Max. Permissible shaft loading radial	125 N
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Max. Permissible shaft loading axial	70 N
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#### Bearings

Bearings type	2 precision ball bearings
Nomiale service life	3 x 10 <sup>8</sup> revs. at 100 % rated shaft load 5 x 10 <sup>9</sup> revs. at 40 % rated shaft load 4 x 10 <sup>10</sup> revs. at 20 % rated shaft load
Max. operating speed	10000 rpm

### Machinery Directive: basic data safety integrity level

MTTF <sub>d</sub>	200 a
Mission time (TM)	25 a
Nomiale service life (L10h)	4 x 10 <sup>10</sup> revs. at 20 % rated shaft load and 10000 rpm
Diagnostic coverage (DC)	0 %

RS Stock No. 7950961

RS Stock No. 7950965

RS Stock No. 7950974

RS Stock No. 7950977

RS Stock No. 7950971

RS Stock No. 7950980

RS Stock No. 7950983

RS Stock No. 7950987

RS Stock No. 7950996

RS Stock No. 7950999

RS Stock No. 7950993

RS Stock No. 7951006

RS Stock No. 7951009

RS Stock No. 7951003

RS Stock No. 7951012

RS Stock No. 7951015

RS Stock No. 7951019

RS Stock No. 7951028

RS Stock No. 7951021

RS Stock No. 7951025

RS Stock No. 7951034

RS Stock No. 7951037

- 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 only

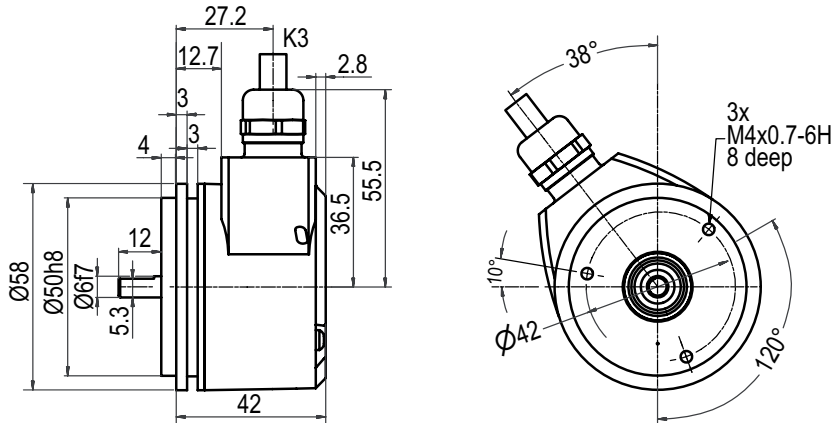
### Accuracy

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

### General Data

Weight	approx. 230 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

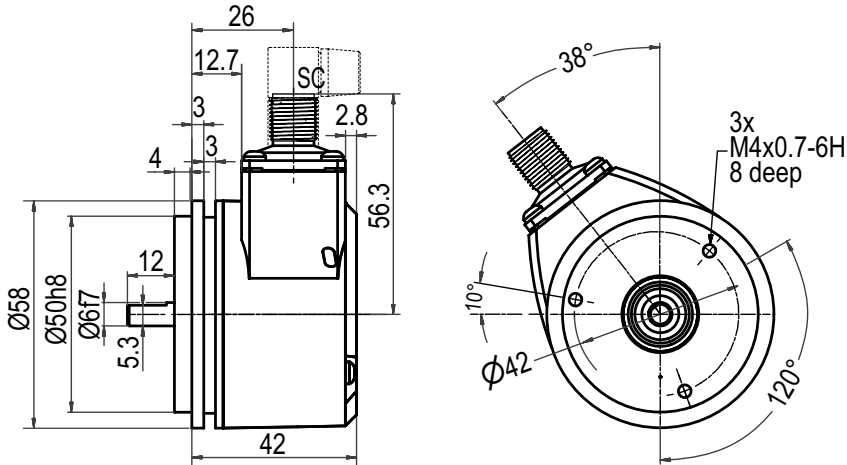
ABN inv. poss.

K3 radial, shield not connected

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

Sensor-connector (M12x1) SC, 8-pin




Description

ABN inv. poss.

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

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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		
7950961	50	5 - 30 VDC, HTL, inv.	Connector 8-pin
7950965	200		
7950974	256		
7950977	360		
7950971	500		
7950980	512		
7950983	1024		
7950987	2048		
7950996	3600		
7950999	4096	10 - 30 VDC, HTL, inv.	
7950993	5000		
7951006	50		
7951009	200	5 - 30 VDC, HTL, inv.	Cable
7951003	256		
7951012	360		
7951015	500		
7951019	512		
7951028	1024		
7951021	2048		
7951025	3600		
7951034	4096		
7951037	5000		