

Datasheet

Encoder RSI 58H

ENGLISH



RS Stock No. 7951113	RS Stock No. 7951148
RS Stock No. 7951116	RS Stock No. 7951157
RS Stock No. 7951110	RS Stock No. 7951150
RS Stock No. 7951129	RS Stock No. 7951154
RS Stock No. 7951122	RS Stock No. 7951163
RS Stock No. 7951126	RS Stock No. 7951166
RS Stock No. 7951135	RS Stock No. 7951160
RS Stock No. 7951138	RS Stock No. 7951179
RS Stock No. 7951132	RS Stock No. 7951172
RS Stock No. 7951141	RS Stock No. 7951176
RS Stock No. 7951144	RS Stock No. 7951185

- Rugged industrial standard encoder
- Housing cap die cast aluminium, with particularly eco-friendly powder coating
- Up to 5000 PPR by use of high grad electronics
- Thru-Bore
- High protection class IP65, with oil seal
- Maximum mechanical and electrical safety
- High noise immunity
- Full connection protection with 10 VDC up to 30 VDC

Resolution

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

Housing

Flange	hollow shaft (through-bored)
Flange material	aluminium
Housing cap	die cast aluminium, powder coated
Torque supports	incl. 1 torque support WDGDS10001
- 1. Spring plate compensation	axial: ± 0.8 mm, radial: ± 0.2 mm
- Max. operating speed	6000 rpm up to max. protection rating +60 °C

Housing	\varnothing 58 mm
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Shaft(s)

Shaft material	stainless steel
Starting torque	approx. 2.2 Ncm at ambient temperature
Fixing	permanently attached clamping ring

Shaft	\varnothing 12 mm, \varnothing 10 mm with adapter sleeve
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Shaft length	L: 44.5 mm
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Max. Permissible shaft loading radial	80 N
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Max. Permissible shaft loading axial	60 N
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Bearings

Bearings type	2 precision ball bearings
Nomiale 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	6000 rpm
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Machinery Directive: basic data safety integrity level

MTTF _d	200 a
Mission time (TM)	25 a
Nomiale service life (L10h)	1 x 10 ¹¹ revs. at 20 % rated shaft load and 6000 rpm
Diagnostic coverage (DC)	0 %

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 \leq 5000 ppr: max. 200 kHz
Channels	AB ABN and inverted signals
Load	max. 40 mA / channel
Circuit protection	10 VDC up to 30 VDC only

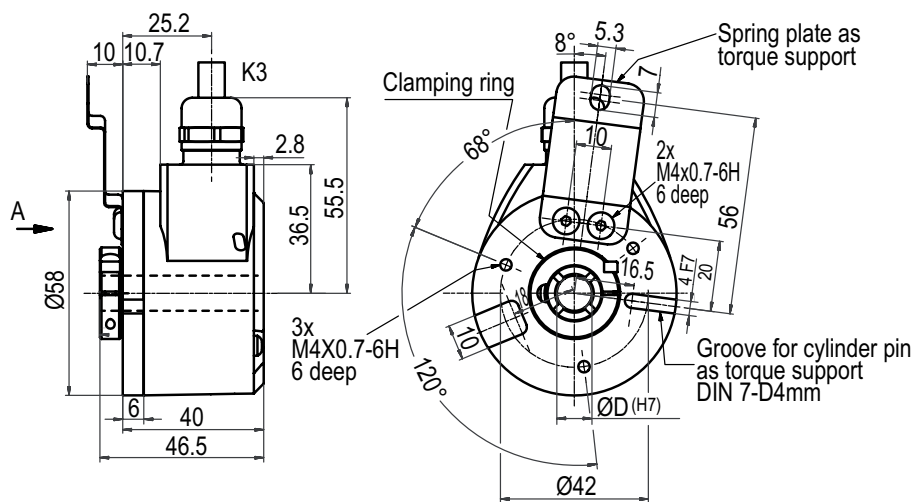
Accuracy

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

General Data

Weight	approx. 220 g
Connections	cable or connector, radial
Protection rating (EN 60529)	IP65 all around
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



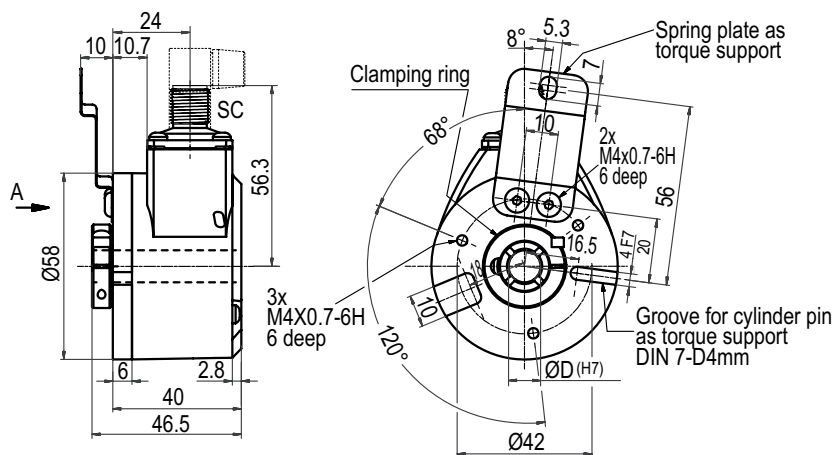
Description

K3 radial, shield not connected

ABN inv. poss.

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

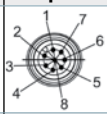


Description

ABN inv. poss.

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

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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	-



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RS Stock No.	PPR		
7951113	50	5 - 30 VDC, HTL, inv.	Connector 8-pin
7951116	200		
7951110	256		
7951129	360		
7951122	500		
7951126	512		
7951135	1024		
7951138	2048		
7951132	3600	10 - 30 VDC, HTL, inv.	Connector 8-pin
7951141	4096		
7951144	5000		
7951148	50	5 - 30 VDC, HTL, inv.	Cable
7951157	200		
7951150	256		
7951154	360		
7951163	500		
7951166	512		
7951160	1024		
7951179	2048		
7951172	3600	10 - 30 VDC, HTL, inv.	Cable
7951176	4096		
7951185	5000		