



Type SCA50 SR

- Shaft Encoder - \varnothing 50 mm
- Shaft: \varnothing 6 mm to \varnothing 10 mm
- Stainless Steel - AISI 303
- Resolution up to 12.500 ppr
- IP 67 Environmental Protection & IP69K
- Formerly named 2RSR

Electrical Specifications

Code:	Incremental
Resolution:	1 to 12.500 ppr (pulses per revolution)
Supply Voltage:	4,5 Vdc min. to 30 Vdc max. ^{**} (45 mA max. - no load)
Output Voltage:	Low: 500 mV max. at 10 mA High: ($V_{in} - 0,6$) at -10 mA ($V_{in} - 1,3$) at -25 mA
Output Current:	30 mA max. load per output channel ^{**}
Frequency Response:	300 kHz max. ^{**}
Output Format:	Two channel (A, B) quadrature with Index (Z) and optional complementary (A-, B-, Z-) outputs
Phase Sense:	A leads B clockwise (CW) from the mounting end of the encoder
Index:	Gated with Channels A and B high
Accuracy:	+/- 0,8 arc-min.
Outputs:	ASIC Push pull and Differential OL7272 Push-pull and Differential Line Driver 26C31 Differential Line Driver 5V output (with 5V input)
Electrical Protection:	Reverse polarity and output short circuit protected
Noise Immunity:	Tested to EN61000-6-2 : 2005 (industrial environments) Electromagnetic compatibility (EMC) and EN 61000-6-3 : 2007 (residential, commercial, and light-industrial environments) for Electromagnetic compatibility (EMC)

**= It is recommended user not to combine max. Value for all 3 parameters

Mechanical Specifications

Material:	Housing: Stainless Steel - AISI 303 Cap: Stainless Steel - AISI 303 Shaft: Stainless Steel - AISI 303
Weight:	Encoder: ~ 235 gr (8,29 oz) Cable: 60 gr / meter (2,12 oz / meter)
Bearing Life:	$> 1,9 \times 10^{10}$ revolutions at rated load
Shaft Speed:	6.000 rpm (max.)
Starting Torque:	$< 0,01$ Nm (1,42 oz-in) at 25° C
Mass Moment of Inertia:	2,0 gcm ² (2,83 x 10 ⁻⁵ oz-in-sec ²)
Shaft Loads:	Axial: 50 N (11,25 lbs) max. Radial: 50 N (11,25 lbs) max.

Environmental Specifications

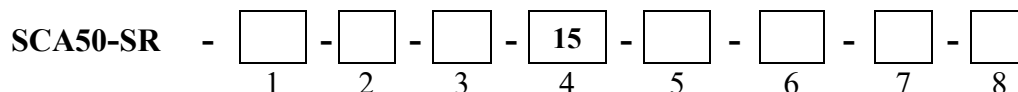
Operating Temp.:	-40° to +85° C
Storage Temp.:	-40° to +85° C
Shock:	100 G / 11 ms
Vibration:	10-2000 Hz / 10 G
Bump:	10 G / 16 ms (1000 x 3 axis)
Humidity:	98 % RH without condensation
Enclosure Rating:	IP 67 / Nema 6 (approx.) & IP69K NEMA PW12 (approx.)

Connection Options

Cable:	M23 9-pin - Standard M23 12-pin - Differential 8 leads (0,14 mm ² , 26 AWG) twisted pairs; shielded
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Ordering Code:

Example: SCA50-SR – 60 – N – 08 – 15 – 67 – 00 – S – C9



1. Pulses per revolution

See table on page 2

2. Output

Standard N
 Standard (Open collector NPN) **NON**
 Standard (Open collector PNP) **NOP**
 Differential **D**
 26C31 Line Driver (SV IN/OUT) **L**
 OL 7272 Line Driver **M**

3 & 4. Shaft diameter

6 mm x 15 mm	06	x	15
8 mm x 15 mm	08	x	15
10 mm x 15 mm	10	x	15

3.

4.

5. IP Rating

IP 67 **67**
 IP 69K **69**

6. Cable Length

Standard cable is 1m **01**
 Specify length **XX**
 No cable **00**

7. Cable & Connector Takeout

Side radial **S**
 Back axial **B***
 *Only encoders with cable

8. Connector

M23 9-pin **C9***
 M23 12-pin **C12***
 No connector **00**
 *Only side (radial) takeout