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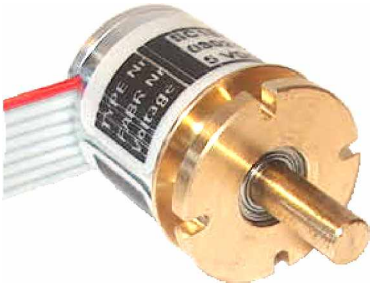
TYPE SCA18

Only 18 mm in diameter and up to 5000 ppr. -True lines. Up to 20000 Counts



CHARACTERISTICS

ENCODER TYPE	Micro shaft encoder
SMD - TECHNOLOGY	Strong compact electronics
IP-RATING	Std. IP 64 (with IDC; IP 50)
LOW CURRENT CONSUMPTION	To be connected directly to PLC'S and counters
SHORT CIRCUIT PROTECTION	Thermal shut down at 155°C
SUPPLY RANGE	5 volts to 12 Volts ± 10% (TTL) (on request up to 24 Volts)
MEC. CONSTRUCTION	Based on 2 precision ball bearings for industrial environment

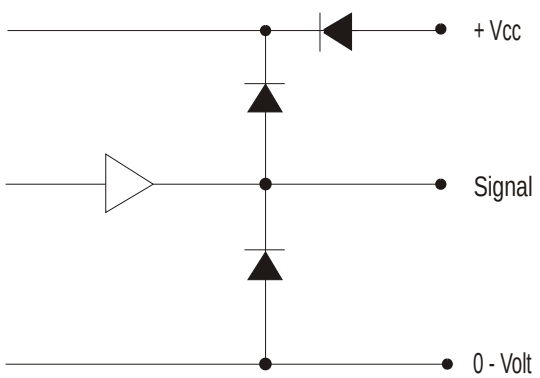
ELECTRICAL SPECIFICATIONS

	At +25°C
Output	NPN Open collector
Output waveform	Incremental (A, B)
Zero or index pulse	(Z) one pr./rev.
Supply-voltage	5 to 12 V (on request up to 24 Volts)
Current (no load)	35mA
Max. load pr. output	20mA (Short circuit protected)
V out low	Max. 500 mV @ I = 10 mA
Operating temp.	-20°C to +70° C
Storage temp.	-20° C to +85°C
Max. pulse frequency	200 kHz
V out high	Min. (Vin -0,6) @ I = -10mA Min. (Vin -1,3) @ I = -25mA
Cable data	8-leads flat band cable (0,14mm²)
Output signals	Differential (RS-422A compatible)
Certified acc. to	EN 50081-1 and EN 50082-2

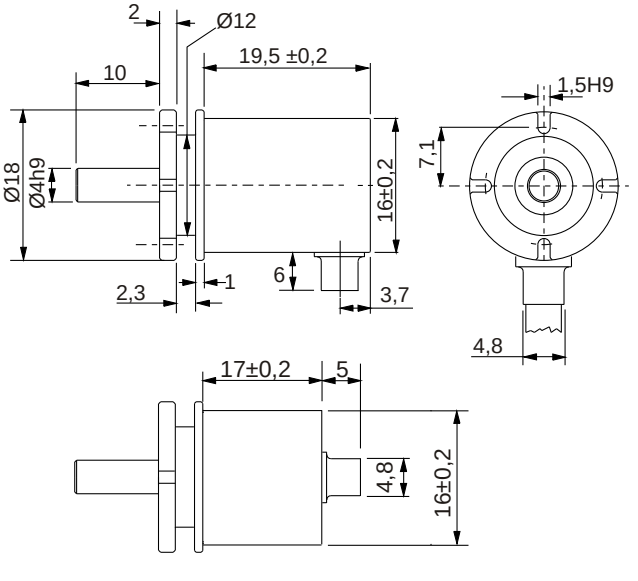
MECHANICAL SPECIFICATIONS

Weight, excl. Cable	About 15 g
Materials: Housing	Brass / Aluminum
Shaft	Brass
Bearings	Lifetime lubricated ball-bearings
Shaft dimensions	Ø4mm x 10 mm
Shaft loads	Axial max. 20 N Radial max. 20 N
Max. rev.	12.000 rev./min.
IP-rating	IP 64 (with IDC; IP 50)
Start torque	<0,005 Nm at 25°C
Mass moment of inertia	0,2 gcm²
Max. shock	100 G/11 ms.
Bump	10 G - 16 ms (1000 x 3axis)
Vibration	(10 - 2000 Hz)/10 G

OUTPUT CIRCUIT



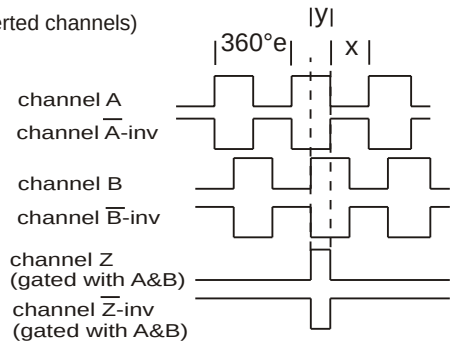
MECHANICAL DIMENSIONS



OUTPUT WAVEFORM

Rotation: Clockwise (cw) from shaftside

(inv = inverted channels)



X = 180°e ± 36°e and Y = 90°e ± 18°e
Z puls: Gated with A and B (standard)

Options: Open Collector NPN or PNP
Gated Z-puls or none-gated Z-puls.
View more Output options in section 15 - page 1

CONNECTIONS

8 leads cable

Color code	Differential
Pink	Ch A
Grey	Ch A inv
Green	Ch B
Yellow	Ch B inv
White	Ch Z
Brown	Ch Z inv
Red	Vcc
Blue	0-Volt

PULSES/REV.

100	300	500	2000	3600
125	360	1024	2500	5000

ORDERING CODES

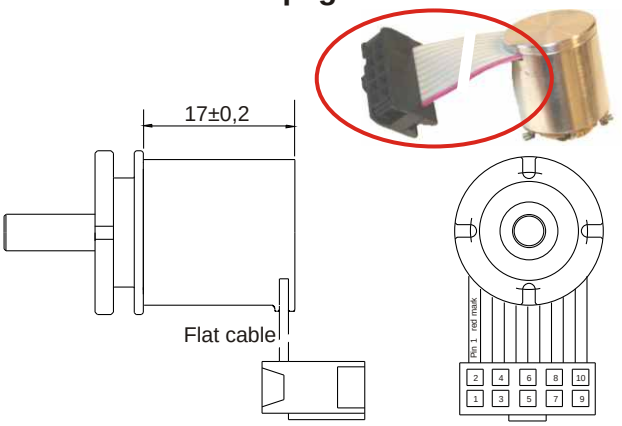
	Options	Order code
Pulses pr.rev.:	No. of pulses	XXXX
Output signal:	TP-Differential, 6 channel A, B, Z and A-inv, B-inv, Z-inv	D
Shaft dimensions:	ø4mm x 10 mm	04 x 10
IP-rating:	IP 64	64
Round Cable Length of cable:	Standard 1 meter No. of meters	01 XX
Round Cable take out:	Side Back	S B

Anti rotation spring coupling Or Flange / Plate: View Section 9 page 1 to 6

Flat Ribbon Cable + IDC: View Section 20 page 10

Flat Ribbon Cable and/or Connector

View Section 20 page 10



Advanced Output Options:

Options	Ordering codes
Normal Open Collector NPN	NON
Differential Open Collector NPN	DON
Normal Open Collector PNP	NOP
Differential Open collector PNP	DOP

To order replace [ ] with [O]
(Output signal)

SCA18 [ ][ ][ ][ ] Pulses | [D] Output signal | [0][4] Shaft | X | [1][0] Shaft length | [6][4] IP-rating | [ ][ ] Length of round cable | [ ] Cable take out | [ ][ ][ ][ ][ ][ ][ ][ ] Anti Rotation Spring Coupling Or Flange / Plate Order Number