

Axial up to 100 N, Radial up to 100 N



IP 66

CHARACTERISTICS

ENCODER TYPE	Shaft encoder
SMD - TECHNOLOGY	Strong compact electronics
HIGH IP-RATING	Std. IP 66
LOW CURRENT CONSUMPTION	To be connected directly to PLC'S and counters
SHORT CIRCUIT PROTECTION	Thermal shut down at 155°C
WIDE SUPPLY RANGE	Min. 4,5 to max. 30V
RUGGED MEC. CONSTRUCTION	Based on 3 precision ball bearings, for harsh industrial environments

ELECTRICAL SPECIFICATIONS

At +25°C	
Output waveform	Incremental (A, B, Z and inverted)
Zero- or index pulse	(Z) one pr./rev.
Output circuit	Totempole (TP)
Supply-voltage (Vin)	Min 4,5V to Max. 30V * Reverse polarity protection
Current (no load)	Max. 45 mA
Max. load pr. output	30 mA - (Short circuit protected) *
V out low	Max. 500 mV @ I = 10mA
Operating temp.	- 40°C to + 85°C
Storage temp.	- 40°C to + 85°C
Max. pulse frequency	300 kHz *
V out high	Min. (Vin -0,6) @ I = -10mA Min. (Vin -1,3) @ I = -25mA
Output signals	Normal (Standard) Differential (RS-422A compatible @ 5V)
Certified acc. to	EN 50081-1 and EN 50082-2

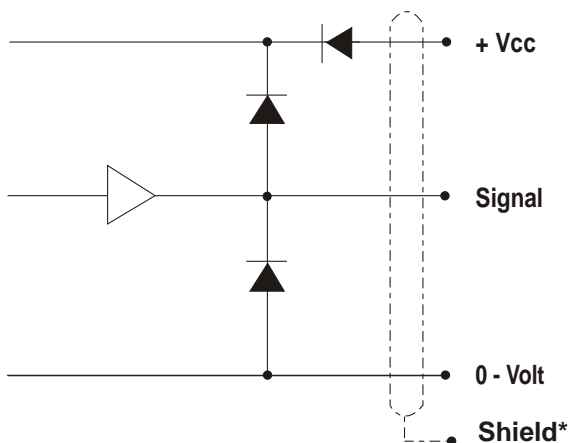
* = It is not recommended to combine max. value for all 3 parameters

MECHANICAL SPECIFICATIONS

Weight	About 575 g (+ cable 60 g/meter)
Materials :	Housing: Anodized aluminum / aluminum Shaft: Stainless steel Bearings: Lifetime lubricated ball bearings
Shaft dimensions	11 mm (Standard) x 30
Shaft loads	Axial max. 100 N Radial max. 100 N
Max. rev.	5.000 rev./min.
IP-rating	Standard IP 66
Starting torque	<0,1 Nm at 25°C
Mass moment of inertia	8 gcm ²
Max. shock*	100 G/11 ms
Bump*	10 G - 16ms (1000 x 3 axis)
Vibration*	(10 - 2000 Hz) /10 G

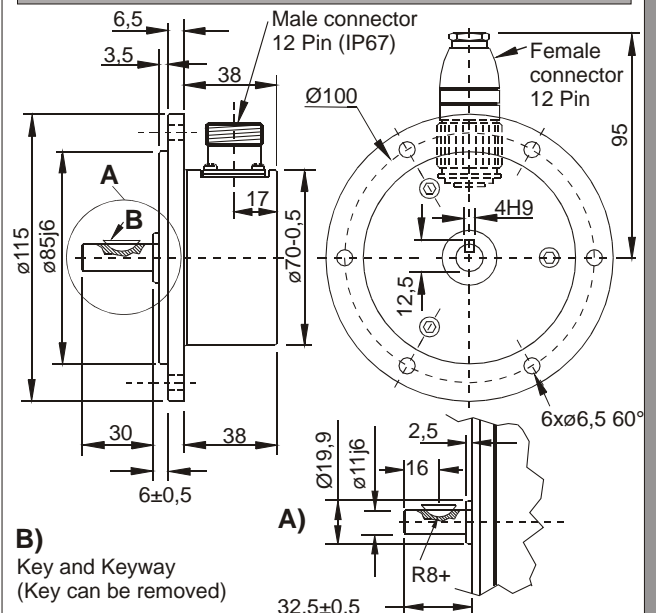
* Data for encoder without connector

OUTPUT CIRCUIT



*Shield connected to housing

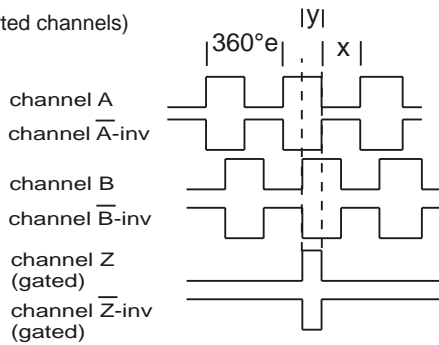
MECHANICAL DIMENSIONS



OUTPUT WAVEFORM

Rotation: Clockwise (cw) from shaftside

(inv = inverted channels)

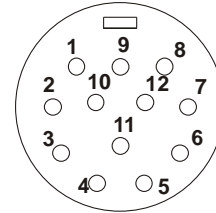


$X = 180^\circ e \pm 36^\circ e$ and $Y = 90^\circ e \pm 18^\circ e$
Z puls: Gated with A and B (standard)

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

CONNECTIONS

Male connector on Encoder



Differential PIN NR. :	COLOR On cable (Female connector)	Standard PIN NR. :
1 Channel B Inv.	Yellow	1 0-Volt
2 Not connected		2 Not connected
3 Channel Z	White	3 Channel Z
4 Channel Z Inv	Brown	4 0-Volt
5 Channel A	Pink	5 Channel A
6 Channel A Inv	Grey	6 0-Volt
7 Shield		7 Shield
8 Channel B	Green	8 Channel B
9 Not connected		9 Not Connected
10 0-Volt	Blue	10 0-Volt
11 0-Volt		11 0-Volt
12 Supply voltage	Red	12 Supply voltage

ORDERING CODES

	Options	Ordering codes
Pulses pr. rev.:	No. of pulses	XXXXX
Output signal:	Normal, Standard, A, B, Z (3 channel)	N
	Differential: A, B, Z and A-inv, B-inv, Z-inv (6 channel)	D
	Line driver OL 7272 for extra long cable, up to 100 meters (Differential)	M
	Line driver chip 26C31 (V out low < 0,4 V) (RS-422A compatible @ 5V) Only 5 Volt (Differential)	L
Shaft dimensions:	ø11 mm x 30 mm	11 x 30
IP-rating:	IP 66	66
Connector take out:	Side (Radial)	S
Optional:		
Female 12 Pin Coninvers connector	No need Yes, without cable Yes, with cable (Ad meter)	XXXXX FeCon XX

9 Pin connives connector on request - View Section 20 page 6 to 9
Standard cable take out, with cable gland on request

PULSES/REV.

1	32	150	600	2048
2	36	180	635	2500
5	40	200	720	3000
6	50	250	800	3600
8	60	300	1000	4000
10	64	360	1024	4096
15	75	400	1131	5000
16	80	455	1250	9000
20	90	500	1500	12500
25	100	512	2000	
30	125			

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
Output signal Output signal

2RCI 11 x 30 66 S +
Pulses Output signal Shaft Ø Diameter Shaft length IP-rating 12 Pin male take out Female coninvers connector Length of cable