

## INCREMENTAL ENCODER

- Through hollow shaft 14mm with reduction hubs in aluminium of 6,8,10 and 12mm
- Robustness and excellent resistance to shocks / vibrations.
- Maximum pulses per turn 8 0000ppr.
- Universal complementary push-pull (short circuit protected, 7272)  
RS422 compatible with 5 V supply voltage.
- High performances in temperature  $-30^{\circ}\text{C}$  to  $100^{\circ}\text{C}$  (option  $-40^{\circ}\text{C}$ ).
- 300 kHz Maximum Frequency.



### ELECTRICAL CHARACTERISTICS

Output Circuit	RS422 (TTL-compatible)	Push-pull (HTL)
Supply Voltage	5V or 5-30V	5-30V
Current Consumption	40 mA (max)	40 mA (max)
Impulse Frequency	300 kHz (max)	300 kHz (max)
"Low" signal level	VOL < 0,5 V	VOL < 2,5 V
"High" signal level	VOH > 2,5 V	VOH > Vcc - 3 V
EMC	EN61000-6-2 and EN61000-6-4	

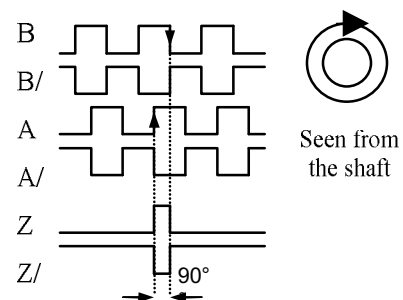
### MECHANICAL CHARACTERISTICS

Housing	Aluminium
Shaft	Stainless Steel
Shaft fixation	Front or Rear clamp
Bearings	Ballraces
Maximum number of revolutions permitted mechanically	9000 rpm
Bearings lifetime	$1 \times 10^6$ rev
Rotor inertia moment	30 gcm <sup>2</sup>
Starting Torque	< 1.5 N cm
Maximum load permitted on shaft	Axial 20 N, Radial 50 N
Protection	IP 65
Operating Temperature	$-30^{\circ}\text{C}$ ... $+100^{\circ}\text{C}$
Storage Temperature	$-40^{\circ}\text{C}$ ... $+100^{\circ}\text{C}$
Shock resistance	100g, 6ms (IEC 68-2-27)
Vibration resistance	100g, 6ms (IEC 68-2-27)
Weight	560g

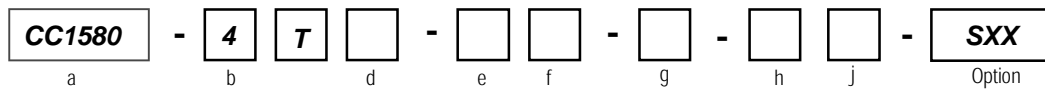
### CONNECTION AND OUTPUT SIGNALS

Function	Cable Colour Code	12 Pin Connector
0 Volt	white	1
+ Volt	brown	2
A	green	3
B	yellow	4
0	grey	5
A̅	pink	6
B̅	blue	7
0	red	8
Ground case	shielding	shielding

#### Output waveforms



## ORDERING CODE



- |   |   |
|---|---|
| <p><b>a Series</b><br/>Incremental Encoder</p> <p><b>b Shaft Type</b><br/>4=hollow shaft</p> <p><b>d Shaft size</b><br/>8,10,12,14mm</p> <p><b>e Power supply</b><br/>2= 5Vdc<br/>6= 5-30Vdc</p> <p><b>f Output circuit</b><br/>3 = Driver 5Vdc RS422 (TTL)<br/>5 = Push-Pull 5-30Vdc (HTL)</p> | <p><b>g Pulse perRevolution</b><br/>1024,2048,4096....</p> <p><b>h Connector Location</b><br/>2=Radial</p> <p><b>j Connection</b><br/>6= Cable<br/>8= M23 Connector</p> |
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## MECHANICAL DRAWINGS

### With Radial CABLE - With M23 CONNECTOR

