

# XCC2510PS81KB

Opto-electronic rotary encoders XCC, absolute encoder Ø 58 single turn, solid shaft 10 mm, push pull 13 bit binary



## Main

Range of product	OsiSense XCC
Encoder type	Single turn absolute encoder
Device short name	XCC
Product specific application	-
Diameter	58 mm
Shaft diameter	10 mm
Shaft type	Solid shaft
Resolution	8192 points
Electrical connection	1 male connector M23 radial 16 pins
Output stage	Type KB
Type of output stage	Driver push-pull binary
[Us] rated supply voltage	11...30 V DC
Enclosure material	Zamak

## Complementary

Residual ripple	500 mV
Maximum revolution speed	9000 rpm
Shaft moment of inertia	10 g.cm <sup>2</sup>
Torque value	0.004 N.m
Maximum load	10 daN radial 5 daN axial
Output frequency	100 kHz
Current consumption	0...100 mA no-load
Protection type	Reverse polarity protection Short-circuit protection
Maximum output current	20 mA
Output level	Low level: 0.5 V maximum 20 mA High level: V supply - 2.5 V minimum 20 mA
Surge withstand	1 kV, level 2 conforming to IEC 61000-4-5
Base material	Aluminium
Shaft material	Stainless steel
Type of ball bearings	6000ZZ1
Net weight	0.465 kg

## Environment

Marking	CE
Ambient air temperature for operation	-20...90 °C
Ambient air temperature for storage	-30...95 °C
IP degree of protection	IP65 conforming to IEC 60529 IP67 conforming to IEC 60529
Vibration resistance	10 gn (f= 10...2000 Hz) conforming to IEC 60068-2-6
Shock resistance	30 gn for 11 ms conforming to IEC 60068-2-27
Resistance to electrostatic discharge	4 KV (contact discharge) level 3 conforming to IEC 61000-4-2 8 kV (air discharge) level 3 conforming to IEC 61000-4-2

Resistance to electromagnetic fields	10 V/m level 3 conforming to IEC 61000-4-3
Resistance to fast transients	1 kV signal ports level 3 conforming to IEC 61000-4-4 2 kV power ports level 3 conforming to IEC 61000-4-4

### Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	8.5 cm
Package 1 Width	14 cm
Package 1 Length	27 cm
Package 1 Weight	465 g

### Offer Sustainability

Toxic heavy metal free	Yes
California proposition 65	WARNING: This product can expose you to chemicals including: Diisononyl phthalate (DINP), which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
For all Reach Rohs enquiries contact us at	<a href="mailto:sustainability@tesensors.com">sustainability@tesensors.com</a>

### Contractual warranty

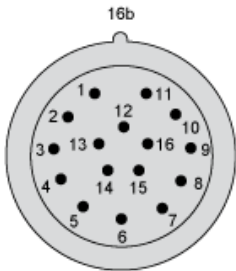
Warranty	18 months
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- (1) 3 M4 holes at 120° on 48 PCD, depth: 8 mm
- (2) 3 M3 holes at 120° on 48 PCD, depth: 8 mm
- (3) Nitrile seal

Wiring Diagram

M23, 16-pin Connector, Anticlockwise Connections

Male Connector on Encoder



Pin number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Signal Supply	0 V	+V	d0	d1	d2	d3	d4	d5	d6	d7	d8	d9	d10	d11	d12	Dir

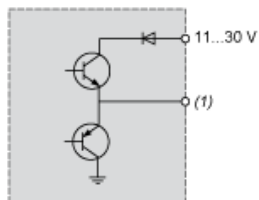
- (1) ⤴ : Clockwise direction, 16 to + V  
⤵ : Anticlockwise direction, 16 to 0 V

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## Technical Description

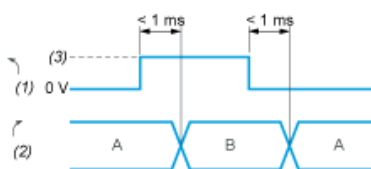
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### Type KB and KG (N) Output Stage



(1) Output

### KB and KG (N) DIRECTION Input



A : Anticlockwise

B : Clockwise

(1) DIRECTION input

(2) DIRECTION of counting

(3) V supply