



## Main

Range of product	OsiSense XCC
Encoder type	Single turn absolute encoder
Device short name	XCC
Product specific application	-
Diameter	58 mm
Shaft diameter	6 mm
Shaft type	Solid shaft
Resolution	8192 points
Electrical connection	1 male connector M23 radial 12 pins
Output stage	Type SG
Type of output stage	SSI 13-bit gray
[Us] rated supply voltage	11...30 V DC
Enclosure material	Zamak

## Complementary

Shaft tolerance	G7
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...1000 kHz
Current consumption	0...100 mA no-load
Protection type	Reverse polarity protection Short-circuit protection
Maximum output current	20 mA
Physical interface	RS422
Output level	High level: 2 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
Product weight	0.49 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
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

## Offer Sustainability

RECh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>

## Contractual warranty

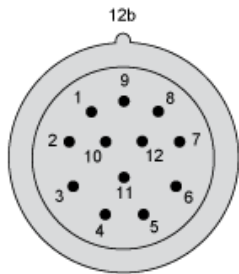
Warranty	18 months
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Wiring Diagram

M23, 12-pin Connector, Anticlockwise Connections

Male Connector on Encoder



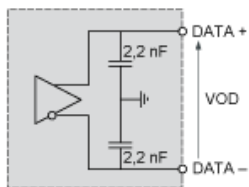
Pin number	1	2	3	4	5	6	7	8	9	10	11	12
Signal Supply	0 V	Data +	Clk +	R	Direction (1)	R	R	+ V	R	Data -	Clk -	R

(1) : Clockwise direction, 5 to 0 V  
 : Anticlockwise direction, 5 to + V

R = Reserved (do not connect)

Technical Description

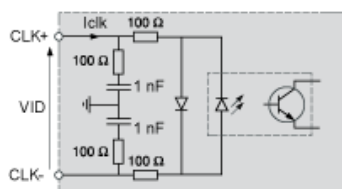
RS 422 Data Output



(1)

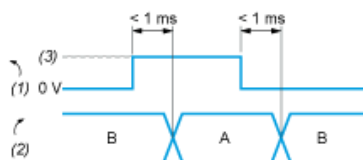
(1)  $I_{data} = 20 \text{ mA}$   $|VOD| > 2 \text{ V}$

Isolated Clock Input



VID maximum: 5 V  
 Iclk maximum: 15 mA

DIRECTION Input



- A : Anticlockwise
- B : Clockwise
- (1) DIRECTION input
- (2) DIRECTION of counting
- (3) V supply