

## Main

Range of product	OsiSense XCC
Encoder type	Multiturn absolute encoder
Device short name	XCC
Product specific application	-
Diameter	2.28 in (58 mm)
Shaft diameter	0.24 in (6 mm)
Shaft type	Solid shaft
Resolution	4096 turns/8192 points
Electrical connection	1 male connector M23 radial 12 pins
Output stage	Type SB
Type of output stage	SSI 25-bit binary
[Us] rated supply voltage	11...30 V DC
Enclosure material	Steel

## Complementary

Shaft tolerance	G7
Residual ripple	500 mV
Maximum revolution speed	6000 rpm
Shaft moment of inertia	0 lb.in <sup>2</sup> (10 g.cm <sup>2</sup> )
Torque value	0.04 lbf.in (0.004 N.m)
Maximum load	10 daN radial 5 daN axial
Output frequency	100...500 kHz
Current consumption	0...100 mA no-load
Protection type	Reverse polarity protection Short-circuit protection
Physical interface	RS422
Output level	High level: 2 V minimum 20 mA
Surge withstand	1 kV level 2 IEC 61000-4-5
Base material	Aluminium
Shaft material	Stainless steel
Type of ball bearings	6900ZZ1
Product weight	1.6 lb(US) (0.725 kg)

## Environment

marking	CE
ambient air temperature for operation	-4...185 °F (-20...85 °C)
ambient air temperature for storage	-4...185 °F (-20...85 °C)
IP degree of protection	IP65 IEC 60529
vibration resistance	10 gn (10...2000 Hz) IEC 60068-2-6
shock resistance	30 gn (11 ms) IEC 60068-2-27
resistance to electrostatic discharge	4 kV contact discharge level 3 IEC 61000-4-2 8 kV air discharge level 3 IEC 61000-4-2
resistance to electromagnetic fields	9.14 V/yd (10 V/m) level 3 IEC 61000-4-3
resistance to fast transients	1 kV signal ports level 3 IEC 61000-4-4 2 kV power ports level 3 IEC 61000-4-4

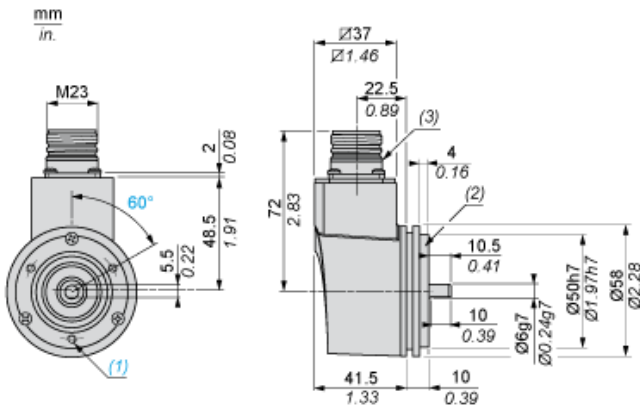
## Offer Sustainability

**Contractual warranty**

Warranty period

18 months

**Dimensions**

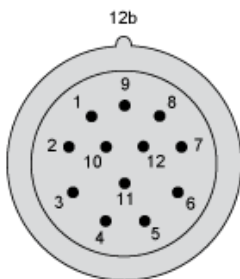


- (1) 3 M4 holes at 120° on 42 PCD, depth: 10 mm
- (2) Collar XCCRB1 mounted
- (3) Nitrile seal

**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)	Reset to zero	R	+ V	R	Data -	Clk -	R

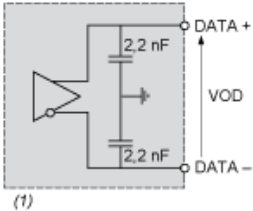
(1) ↻ : Clockwise direction

↻ : Anticlockwise direction

R = Reserved (do not connect)

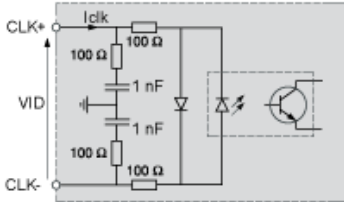
**Technical Description**

### RS 422 Data Output



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

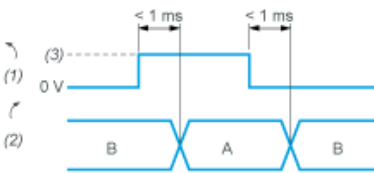
### Isolated Clock Input



**VID** maximum: 5 V

**Iclk** maximum: 15 mA

### DIRECTION Input



A : Anticlockwise

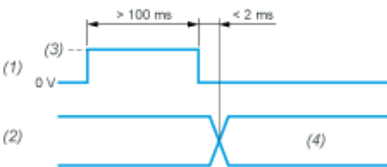
B : Clockwise

(1) DIRECTION input

(2) DIRECTION of counting

(3) V supply

### Input Stage - Reset to Zero



(1) Reset input

(2) Position

(3) V supply

(4) Position=0 (Reset to zero)