



## 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	0.55 in (14 mm)
Shaft type	Through 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	H7
Residual ripple	500 mV
Maximum revolution speed	6000 rpm
Shaft moment of inertia	0.01 lb.in <sup>2</sup> (22 g.cm <sup>2</sup> )
Torque value	0.05 lbf.in (0.006 N.m)
Maximum load	2 daN axial 5 daN radial
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	6803ZZ
Product weight	1.44 lb(US) (0.655 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

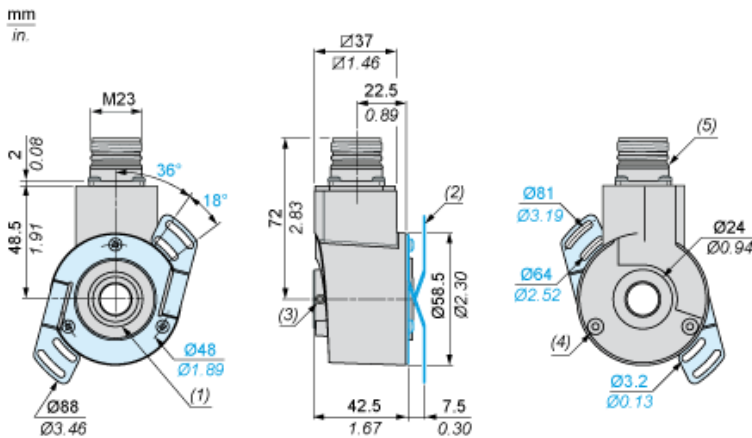
## Offer Sustainability

**Contractual warranty**

Warranty period

18 months

**Dimensions**

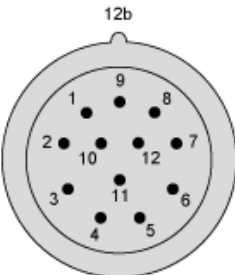



- (1) Through shaft, Ø 14 (H7)
- (2) Flexible mounting kit, 1 x XCCRF5N mounted
- (3) 2 HC M4 x 4 locking screws
- (4) Hole for M3 x 6 self-threading screw
- (5) Nitrile seal



**Wiring Diagram**

**M23, 12-pin Connector, Anticlockwise Connections**

**Male Connector on Encoder**



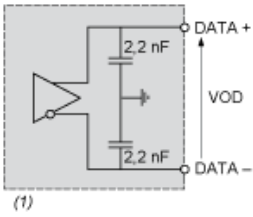
Pin number	1	2	3	4	5	6	7	8	9	10	11	12
Signal Supply	0 V	Data +	Clk +	R	Direction  (1)	Reset to zero	R	+ V	R	Data -	Clk -	R

- (1)  : Clockwise direction
-  : Anticlockwise direction

R = Reserved (do not connect)

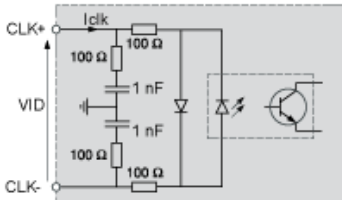
## Technical Description

### RS 422 Data Output



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

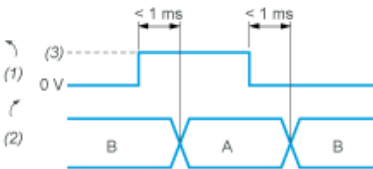
### Isolated Clock Input



VID maximum: 5 V

Iclk maximum: 15 mA

### DIRECTION Input



A : Anticlockwise

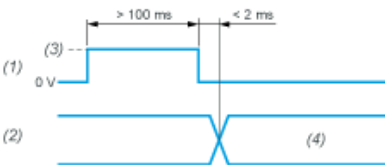
B : Clockwise

(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)