



OCF-S101G-1413-C10V-AAE



Product Description

POSITAL IXARC absolute Zone 2 & 22 encoder: SSI with Preset interface, Clamp, $\varnothing$ 58 mm (C), $\varnothing$ 10 mm (0.39") shaft and IP67 protection class.

INTERFACE



Interface	SSI with Preset
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Manual Functions	Preset + complement via cable or connector
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Interface Cycle Time	$\geq 25 \mu\text{s}$
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OUTPUTS



Output Driver	RS422
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ELECTRICAL DATA



Supply Voltage	4.5 – 30 VDC
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Power Consumption	≤ 1.5 W
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Start-Up Time	< 1 s
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Clock Input	RS 422, via Optocoupler
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Clock Frequency	100 kHz – 2 MHz
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Reverse Polarity Protection	Yes
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Short Circuit Protection	Yes
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EMC: Emitted Interference	DIN EN 61000-6-4
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EMC: Noise Immunity	DIN EN 61000-6-2
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MTTF	16.2 years @ 40 °C
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SENSOR



Technology	Optical
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Resolution Singleturn	13 bit
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Resolution Multiturn	14 bit
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Multiturn Technology	Mechanical Gearing (no Battery)
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Accuracy (INL)	$\pm 0.0220^\circ$ (14 – 16 bit), $\pm 0.0439^\circ$ (≤ 13 bit)
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Sense Signal (Default)	Clockwise shaft movement (front view on shaft)
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Code	Gray
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ENVIRONMENTAL SPECIFICATIONS



Protection Class (Shaft)

IP66/IP67

Protection Class
(Housing)

IP66/IP67

Min Temperature

-40 °C fixed (-40 °F), -30 °C flexible (-22 °F)

Max Temperature

+85 °C (+185 °F)

Humidity

98% RH, no condensation

MECHANICAL DATA

Housing Material	Stainless Steel V2A (1.4305, 303)
Housing Coating	No Coating
Flange Type	Clamp, ø 58 mm (C)
Flange Material	Stainless steel V2A (1.4305; 303)
Shaft Type	Solid, Single Flat, Length = 20 mm
Shaft Diameter	ø 10 mm (0.39")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Max. Shaft Load	Axial 40 N, Radial 110 N
Minimum Mechanical Lifetime(10 ⁸ revolutions with Fa/Fr)	430 (20N/40N), 150 (40N/60N), 100 (40N/80N), 55 (40N/110N)
Rotor Inertia	≤ 30 gcm ² [≤ 0.17 oz-in ²]
Friction Torque	≤ 5 Ncm @ 20 °C, (7.1 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	≤ 3000 1/min
Shock Resistance	≤ 100 g (half sine 6 ms, EN 60068-2-27)
Permanent Shock Resistance	≤ 10 g (half sine 16 ms, EN 60068-2-29)
Vibration Resistance	≤ 10 g (10 Hz - 1000 Hz, EN 60068-2-6)
Weight	600 g (1.32 lb)

ELECTRICAL CONNECTION



Connection Orientation	Axial
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Cable Length	10 m [394"]
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Wire Cross Section	0.14 mm ² / AWG 26
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Material / Type	PUR / PU
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Cable Diameter	8 mm (0.31 in)
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Minimum Bend Radius	40 mm (1.57") fixed, 80 (3.15") flexing
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CERTIFICATION



Approval	CE + ATEX Zone 2 & 22
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PRODUCT LIFE CYCLE

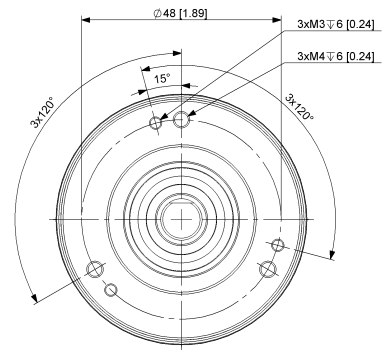
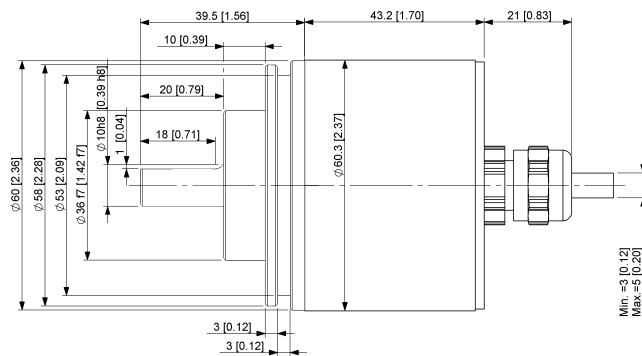


Product Life Cycle	Established
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Connection Plan

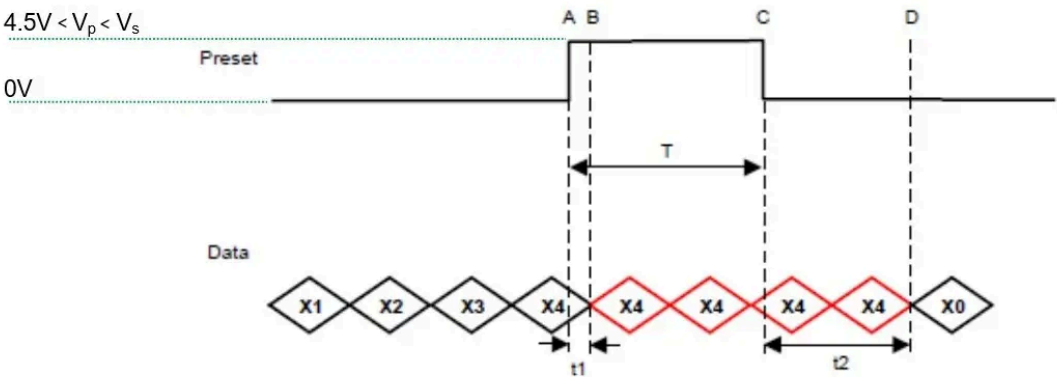
Signal	Color
Power Supply	Brown
GND	White
Data+	Gray
Data-	Pink
Clock+	Green
Clock-	Yellow
Preset	Blue
DIR	Red
Shielding	Shield

Drawings



Configuration Picture

The Preset function allows to set the output value to zero at the present mechanical position.
Input resistance is 110 kΩ



$T = 103\text{msec} \pm 2\text{msec}$
 $t1 = 3\text{msec} \pm 2\text{msec}$
 $T+t2 = 225\text{msec} (\pm 13\text{msec})$

Configuration Picture

The DIR-function allows to change the encoder counting direction.

0 (open or GND)	Increasing Values Turning Clockwise (Viewed from Flange Side)
1 (4.5 V to V_s)	Decreasing Values Turning Clockwise (Viewed from Flange Side)
Input Resistance	60 kΩ

Online Datasheet

