



OCF-S101G-0812-B150-CRE



Product Description

POSITAL IXARC absolute Zone 2 & 22 encoder: SSI with Preset interface, Blind Hollow, $\varnothing$ 58 mm (B), $\varnothing$ 15 mm (0.59") shaft and IP64 / IP65 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	12 bit
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Resolution Multiturn	8 bit
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Multiturn Technology	Mechanical Gearing (no Battery)
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Accuracy (INL)	±0.0220° (14 – 16 bit), ±0.0439° (≤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)	IP65	
Protection Class (Housing)	IP65	
Min Temperature	-30 °C fixed (-22 °F), -5 °C flexible (+23 °F)	
Max Temperature	+80 °C (+176 °F)	
Humidity	98% RH, no condensation	

MECHANICAL DATA ✓	
Housing Material	Steel
Housing Coating	Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection (>720 h salt spray resistance)
Flange Type	Blind Hollow, ø 58 mm (B)
Flange Material	Aluminum
Shaft Type	Blind Hollow, Depth = 30 mm
Shaft Diameter	ø 15 mm (0.59")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Rotor Inertia	≤ 30 gcm ² [≤ 0.17 oz-in ²]
Friction Torque	≤ 3 Ncm @ 20 °C (4.2 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	≤ 12000 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	470 g (1.04 lb)
Maximum Axial / Radial Misalignment	Static ± 0.3 mm /± 0.5 mm; Dynamic ± 0.1 mm /± 0.2 mm

ELECTRICAL CONNECTION



Connection Orientation	Radial
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Cable Length	1 m [39"]
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Wire Cross Section	0.14 mm ² / AWG 26
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Material / Type	PVC
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Cable Diameter	6 mm (0.24 in)
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Minimum Bend Radius	46 mm (1.81") fixed, 61 mm (2.4") 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

Technical drawing of the 1000 series motor, showing side and front views with dimensions in mm and inches.

Side View Dimensions:

- Total width: 28.7 [1.13]
- Distance from mounting flange to centerline: 43.2 [1.70]
- Mounting flange diameter: $\phi 58.5$ [2.30]
- Flange thickness: 4.2 [0.17]
- Flange hole diameter: $\phi 30$ [1.18]
- Flange hole spacing: 2.7 [0.11]
- Motor body diameter: $\phi 58.6$ [2.31]
- Motor body length: 56.1 [2.21]
- Shaft diameter: $\phi 18.5$ [0.73]

Front View Dimensions:

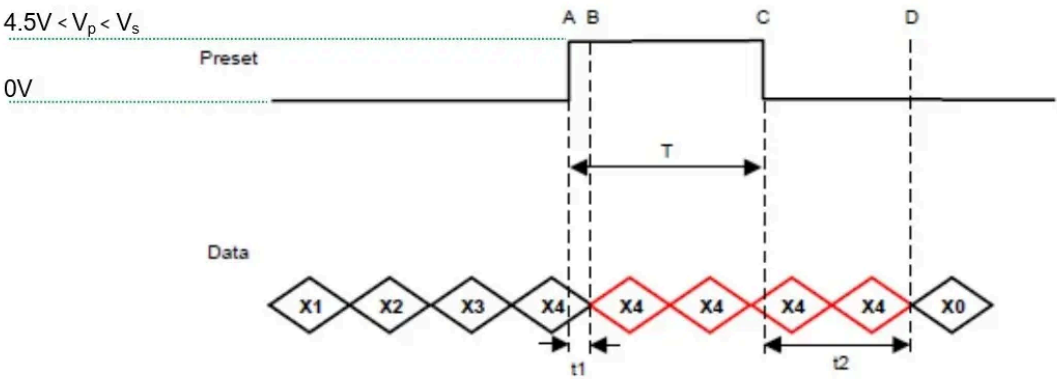
- Total width: 72 [2.83]
- Distance from mounting flange to centerline: $\phi 63$ [2.48]
- Mounting flange diameter: $\phi 15$ F7 [0.59]
- Flange thickness: 3.2 [0.13]
- Flange hole diameter: $\phi 15$ F7 [0.59]
- Flange hole spacing: 2.7 [0.11]
- Motor body diameter: $\phi 58.6$ [2.31]
- Motor body length: 56.1 [2.21]
- Shaft diameter: $\phi 18.5$ [0.73]

Notes:

- Max. $W^{**}=30$
- Min. $W^{**}=15$
- **Welleneinstecktiefe [hollow shaft depth]

Configuration Picture

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



T = 103msec +/- 2msec
t1 = 3msec +/- 2msec
T+t2 = 225msec (+/- 13msec)

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 Vs)	Decreasing Values Turning Clockwise (Viewed from Flange Side)
Input Resistance	60 kΩ

Online Datasheet

