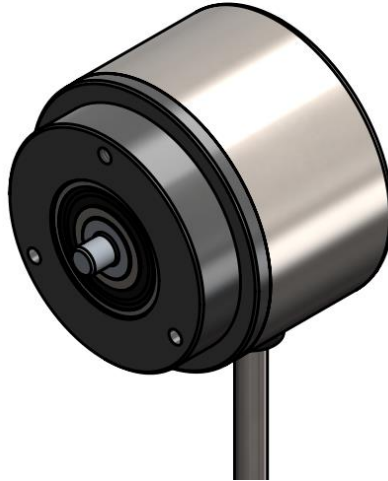


## DATASHEET OCD-P1A1S-0007-SB2C-CRW-695

**Author:** CFE  
**Version:** v1.0 initial

20210208



### Description:

Customized encoder for Dorian Tool International Inc equipment.

- Custom flange and shaft
- Short housing
- Custom code (tool changer cam)

### Replaces previous versions:

- OCD-P1A1S-0007-SB2C-CRW-113
- 5807-1-YG00PG000R-DT

### Content:

- Datasheet standard OCD-P1A1B-0010-S060-CRW bit-parallel ST encoder
- Drawing OCD-P1A1S-0007-SB2C-CRW-695 design
- Code/Pinout OCD-P1A1S-0007-SB2C-CRW-695



### IXARC Absolute Rotary Encoder

OCD-P1A1B-0010-S060-CRW



#### Interface

Interface	Bit Parallel preset
Manual Functions	Preset + complement via cable or connector
Interface Cycle Time	150 $\mu$ s

#### Outputs

Output Driver	Push-Pull
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#### Electrical Data

Supply Voltage	10 - 30 VDC
Current Consumption	$\leq 400$ mA @ 10 V DC, $\leq 180$ mA @ 24 V DC
Power Consumption	$\leq 1.5$ W
Start-Up Time	< 1 s
Settling Time	80 ms
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
EMC: Emitted Interference	DIN EN 61000-6-4
EMC: Noise Immunity	DIN EN 61000-6-2
MTTF	22.3 years @ 40 °C

#### Sensor

Technology	Optical
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Resolution Singleturn	10 bit
Accuracy (INL)	$\pm 0.0220^\circ$ (14 - 16 bit), $\pm 0.0439^\circ$ ( $\leq 13$ bit)
Sense Signal (Default)	Clockwise shaft movement (front view on shaft)
Code	Binary

### Environmental Specifications

Protection Class (Shaft)	IP65
Protection Class (Housing)	IP65
Operating Temperature	-30 °C fixed (-22 °F), -5 °C flexible (+23 °F) - +70 °C (+158 °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	Synchro, $\varnothing$ 58 mm (S)
Flange Material	Aluminum
Shaft Type	Solid, Length = 10 mm
Shaft Diameter	$\varnothing$ 6 mm (0.24")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Max. Shaft Load	Axial 40 N, Radial 110 N
Minimum Mechanical Lifetime (10 <sup>8</sup> revolutions with Fa/Fr)	550 (20 N / 40 N), 195 (40 N / 60 N), 135 (40 N / 80 N), 85 (40 N / 110 N)
Rotor Inertia	$\leq 30$ gcm <sup>2</sup> [ $\leq 0.17$ oz-in <sup>2</sup> ]
Friction Torque	$\leq 3$ Ncm @ 20 °C (4.2 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	$\leq 12000$ 1/min
Shock Resistance	$\leq 100$ g (half sine 6 ms, EN 60068-2-27)
Permanent Shock Resistance	$\leq 10$ g (half sine 16 ms, EN 60068-2-29)
Vibration Resistance	$\leq 10$ g (10 Hz - 1000 Hz, EN 60068-2-6)
Length	56,7 mm (2.23")
Weight	275 g (0.61 lb)

### Electrical Connection

Connection Orientation	Radial
Cable Length	1 m [39"]
Wire Cross Section	0.14 mm <sup>2</sup> / AWG 26

Data Sheet

Printed at 8-02-2021 13:02

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Material / Type	PVC
Cable Diameter	9.3 mm (0.37 in)
Minimum Bend Radius	150 mm (6 in)

### Product Life Cycle

Product Life Cycle	Established
Approval	CE + cULus

### Connection Plan

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## Dimensional Drawing

[2D Drawing](#)

### Accessories

#### Couplings

- Coupling Bellow Type-06-06
- Coupling Bellow Type-06-10
- Coupling Bellow Type-06-08
- Coupling Bellow Type-06-(3/8")
- Coupling Bellow Type-06-(1/4")
- Coupling Jaw Type-06-06
- Coupling Jaw Type-06-10
- Coupling Jaw Type-06-08
- Coupling Jaw Type-06-12
- Coupling Jaw Type-06-(1/4")
- Coupling Jaw Type-06-(3/8")
- Coupling Disc Type-06-06
- Coupling Disc Type-06-10

#### More

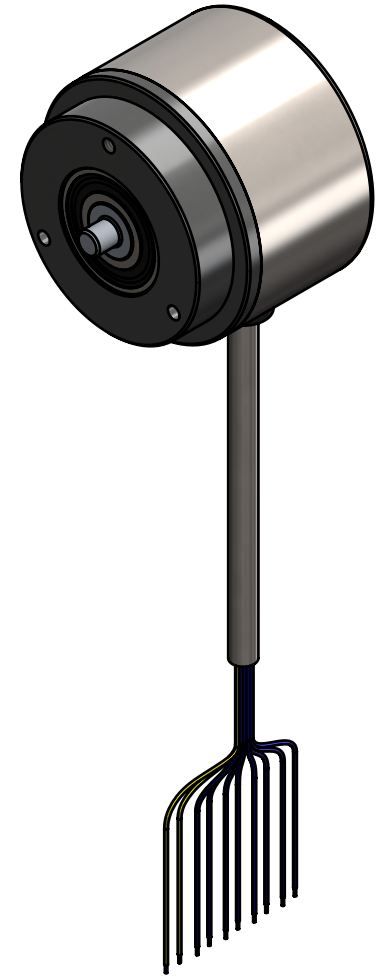
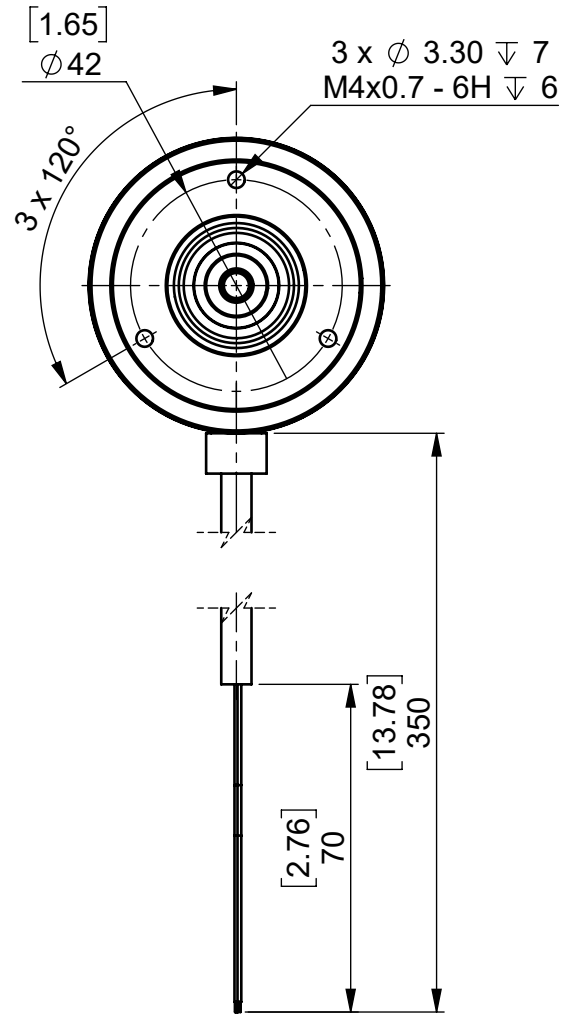
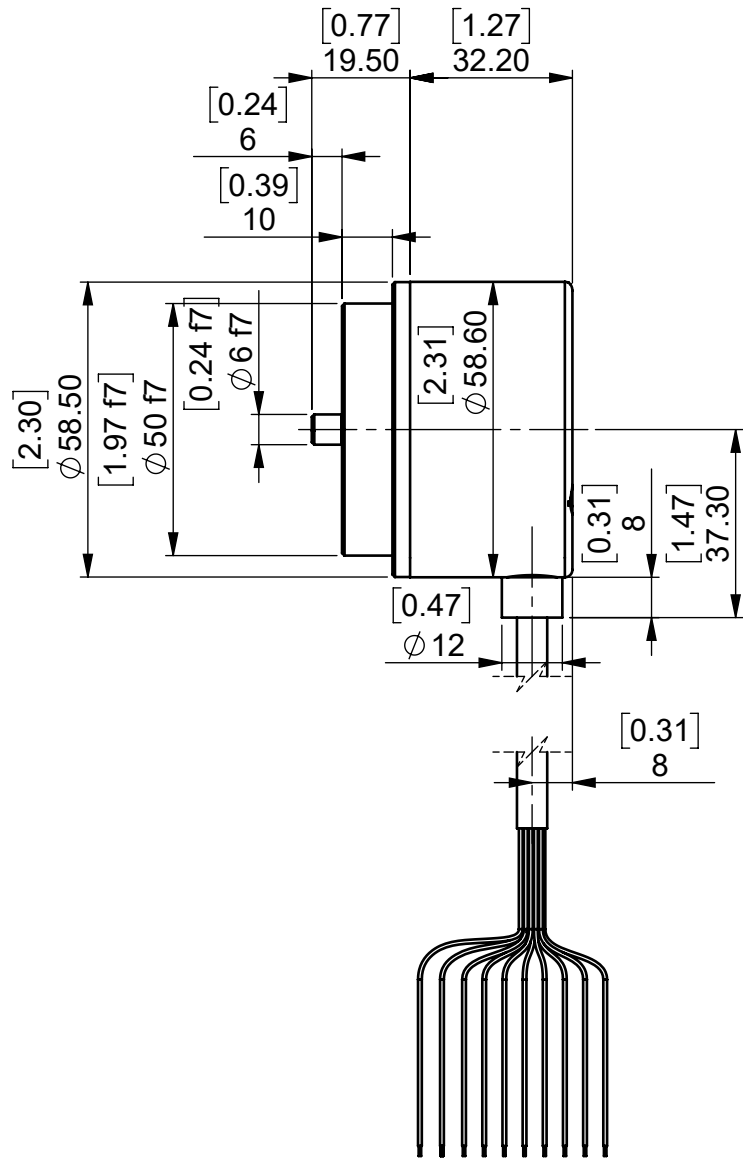
- Adapter Flanges
- Mounting Bracket for Synchro Flange w/ fixtures
- Clamping Rings
- Clamp Disc w/ Eccentric Hole-4pcs
- Clamp Disc w/ Centred Hole-4pcs

**Got questions? Need an individual solution? We are here to help!**



Contact Us

The picture and drawing are for general presentation purposes only. Please refer to the "Download" section for detailed technical drawings. All dimension in [inch] mm. © FRABA B.V., All rights reserved. We do not assume responsibility for technical inaccuracies or omissions. Specifications are subject to change without notice.



<b>POSITAL</b> <b>FRABA</b>	Document type <i>Dokumentart</i>	Untoleranced dimensions according <i>Maße ohne Toleranzangaben nach</i>	Article No. <i>Artikel Nr.</i>	
	Product drawing	DIN ISO 2768-mK	0148307004	
Projection <i>Projektion</i>	Scale <i>Maßstab</i>	Edited by <i>Bearbeitet von</i>	Title <i>Bezeichnung</i>	
	1:1.5	TWI	OCD-P1A1S-0007-SB2C-CRW-695	
		Approved by <i>Genehmigt von</i>	Date edited <i>Datum</i>	Date approved <i>Datum</i>
		AWE	05 Feb 2021	05 Feb 2021
			Drawing No. <i>Zeichnung Nr.</i>	Revision <i>Index</i>
			46W11364	A

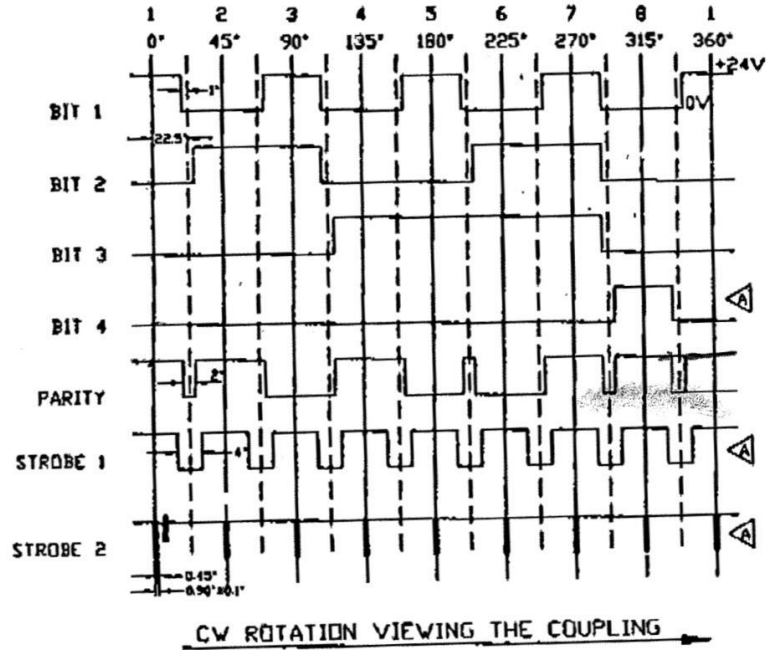
Units *Einheiten*: mm [inch]

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CODE / PINOUT OCD-P1A1S-0007-SB2C-CRW-695

Code:



Pinout:

COLOR	SIGNAL
Yellow	Bit 1
Grey	Bit 2
Pink	Bit 3
Blue	Bit 4
Green	Parity
Red	Strobe 1
Black	Strobe 2
Purple	Do not connect
White	Vcc
Brown	GND

**Disclaimer:**

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