

**UCD-S101G-2012-Y10S-PAL**



## Outputs

## Electrical Data

## Data Sheet

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|                     |                   |
|---------------------|-------------------|
| EMC: Noise Immunity | DIN EN 61000-6-2  |
| MTTF                | 350 years @ 40 °C |

### Sensor

|                        |                                                           |
|------------------------|-----------------------------------------------------------|
| Technology             | Magnetic                                                  |
| Resolution Singleturn  | 12 bit                                                    |
| Resolution Multiturn   | 20 bit                                                    |
| Multiturn Technology   | Self powered magnetic pulse counter (no battery, no gear) |
| Accuracy (INL)         | $\pm 0.0878^\circ (\leq 12 \text{ bit})$                  |
| Sense Signal (Default) | Clockwise shaft movement (front view on shaft)            |
| Code                   | Gray                                                      |

### Environmental Specifications

|                            |                                    |
|----------------------------|------------------------------------|
| Protection Class (Shaft)   | IP66/IP67                          |
| Protection Class (Housing) | IP66/IP67                          |
| Operating Temperature      | -40 °C (-40 °F) - +85 °C (+185 °F) |
| Humidity                   | 98% RH, no condensation            |

### Mechanical Data

|                                                                      |                                                                                   |
|----------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Housing Material                                                     | Steel                                                                             |
| Housing Coating                                                      | Cathodic corrosion protection (>720 hrs salt spray resistance)                    |
| Flange Type                                                          | Synchro, $\varnothing$ 58 mm (Y)                                                  |
| Flange Material                                                      | Aluminum                                                                          |
| Shaft Type                                                           | Solid, Length = 20 mm                                                             |
| Shaft Diameter                                                       | $\varnothing$ 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 <sup>8</sup> revolutions with Fa/Fr) | 420 (20 N / 40 N), 145 (40 N / 60 N), 100 (40 N / 80 N), 55 (40 N / 110 N)        |
| Rotor Inertia                                                        | $\leq 30 \text{ gcm}^2 [\leq 0.17 \text{ oz-in}^2]$                               |
| Friction Torque                                                      | $\leq 5 \text{ Ncm @ } 20^\circ\text{C}, (7.1 \text{ oz-in @ } 68^\circ\text{F})$ |
| Max. Permissible Mechanical Speed                                    | $\leq 3000 \text{ 1/min}$                                                         |
| Shock Resistance                                                     | $\leq 100 \text{ g}$ (half sine 6 ms, EN 60068-2-27)                              |
| Permanent Shock Resistance                                           | $\leq 10 \text{ g}$ (half sine 16 ms, EN 60068-2-29)                              |
| Vibration Resistance                                                 | $\leq 10 \text{ g}$ (10 Hz - 1000 Hz, EN 60068-2-6)                               |
| Length                                                               | 45,7 mm (1.80")                                                                   |

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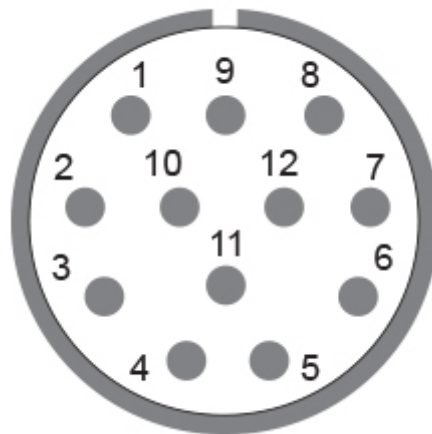
|        |                 |
|--------|-----------------|
| Weight | 285 g (0.63 lb) |
|--------|-----------------|

### Electrical Connection

|                        |                               |
|------------------------|-------------------------------|
| Connection Orientation | Axial                         |
| Connector              | M23, Male, 12 pin, CCW / left |

### Certification

|                    |                                                 |
|--------------------|-------------------------------------------------|
| Approval           | CE + cULus listed, Industrial Control Equipment |
| Product Life Cycle | Established                                     |



### Connection Plan

| SIGNAL        | PIN NUMBER |
|---------------|------------|
| Power Supply  | 11         |
| GND           | 12         |
| Data+         | 3          |
| Data-         | 4          |
| Clock+        | 2          |
| Clock-        | 1          |
| Preset        | 9          |
| DIR           | 8          |
| Not Connected | 5          |
| Not Connected | 6          |
| Not Connected | 7          |
| Not Connected | 10         |

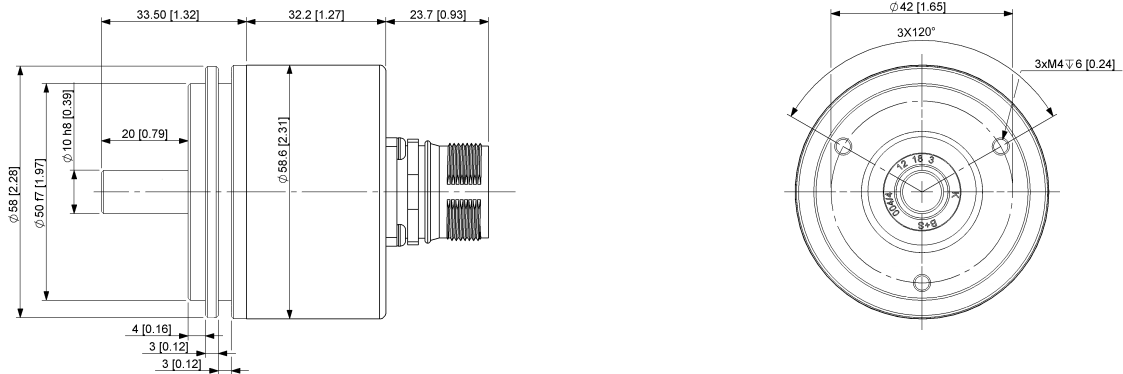
Connector-View on Encoder

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### [2D Drawing](#)

#### Accessories

##### Connectors & Cables

10m PVC Cable, 12pin, Clockwise, f  
15m PVC Cable, 12pin, Clockwise, f  
1m PVC Cable, 12pin, Clockwise, f  
20m PVC Cable, 12pin, Clockwise, f  
5m PVC Cable, 12pin, Clockwise, f  
30m PVC Cable, 12pin, Clockwise, f  
2m PVC Cable, 12pin, Clockwise, f  
M23, 12pin Clockwise, Female  
More

Clamp Disc w/ Eccentric Hole-4pcs  
Clamp Disc w/ Centred Hole-4pcs

Coupling Disc Type-10-12

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

Mounting Bracket for Synchro Flange w/ fixtures

### Contact



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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.