



POSITAL

FRABA

IXARC Incremental Encoder

UCD-IPH00-00512-VBS0-PAQ



Interface

| | |
|-----------------------|---|
| Interface | Programmable Incremental |
| Programming Functions | PPR (1-16384), Output, Counting Direction |
| Configuration Tool | UBIFAST Configuration Tool (Version \geq 1.6.3) |

Outputs

| | |
|---|--|
| Output Driver | Push-Pull (HTL) |
| Quadrature Phasing | $90^\circ \pm 4.5^\circ$ electrical |
| Output Voltage High Level Push-Pull (HTL) | $> 4 \text{ V}$ @ 4.75-9 V Supply Voltage $> 3 \text{ V}$ @ 9-30 V Supply Voltage |
| Output Voltage Low Level Push-Pull (HTL) | $< 0.5 \text{ V}$ |
| Output Voltage High Level RS422 (TTL) | $> 4 \text{ V}$ |
| Output Voltage Low Level RS422 (TTL) | $< 0.5 \text{ V}$ |
| Maximum Frequency Response | 1 MHz |
| Maximum Switching Current | 50 mA per Channel |

Electrical Data

| | |
|----------------------|---|
| Supply Voltage | 4.75 - 30 VDC |
| Current Consumption | $\leq 140 \text{ mA}$ @ 5V DC, $\leq 70 \text{ mA}$ @ 10V DC, $\leq 40 \text{ mA}$ @ 24V DC |
| Power Consumption | $\leq 1.0 \text{ W}$ |
| Start-Up Time | $< 250 \text{ ms}$ |
| Min. Load Resistance | 120 Ω |

Data Sheet

Printed at 15-02-2018 15:02



POSITAL

FRABA

| | |
|-----------------------------|-------------------|
| 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 | 280 years @ 40 °C |

Sensor

| | |
|----------------|---|
| Technology | Magnetic |
| Accuracy (INL) | $\pm 0.0878^\circ$ (≤ 12 bit) |
| Duty Cycle | $180^\circ \pm 27^\circ$ (Speed > 100RPM) |
| Phase Angle | $90^\circ \pm 14^\circ$ (Speed > 100RPM) |

Environmental Specifications

| | |
|----------------------------|------------------------------------|
| Protection Class (Shaft) | IP65 |
| Protection Class (Housing) | IP65 |
| Operating Temperature | -40 °C (-40 °F) - +85 °C (+185 °F) |
| Humidity | 98% RH, no condensation |

Mechanical Data

Mechanical Data

| | |
|-----------------------------------|--|
| Housing Material | Steel |
| Housing Coating | Cathodic corrosion protection (>720 hrs salt spray resistance) |
| Flange Type | Blind Hollow, $\varnothing 36$ mm / $\varnothing 42$ mm |
| Flange Material | Aluminum |
| Shaft Type | Blind Hollow, Depth = 18 mm |
| Shaft Diameter | $\varnothing 11$ mm (0.43") |
| Shaft Material | Stainless Steel V2A (1.4305, 303) |
| 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) |
| Length | 54,2 mm (2.13") |
| Weight | 105 g (0.23 lb) |



POSITAL

FRABA

Electrical Connection

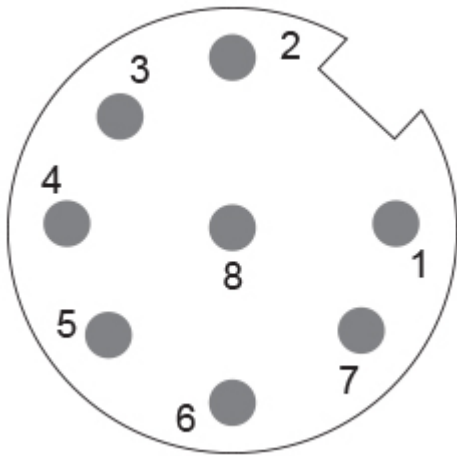
| | |
|------------------------|---------------------------|
| Connection Orientation | Axial |
| Connector | M12, Male, 8 pin, a coded |

Certification

| | |
|----------|---|
| Approval | CE + cULus listed, Industrial Control Equipment |
|----------|---|

Product Life Cycle

| | |
|--------------------|-------------|
| Product Life Cycle | Established |
|--------------------|-------------|



Connection Plan

| SIGNAL | PIN NUMBER |
|--------------|-------------------|
| A | 3 |
| /A | 4 |
| B | 5 |
| /B | 6 |
| Z | 7 |
| /Z | 8 |
| Power Supply | 2 |
| GND | 1 |
| Shielding | Connector housing |

Connector-View on Encoder

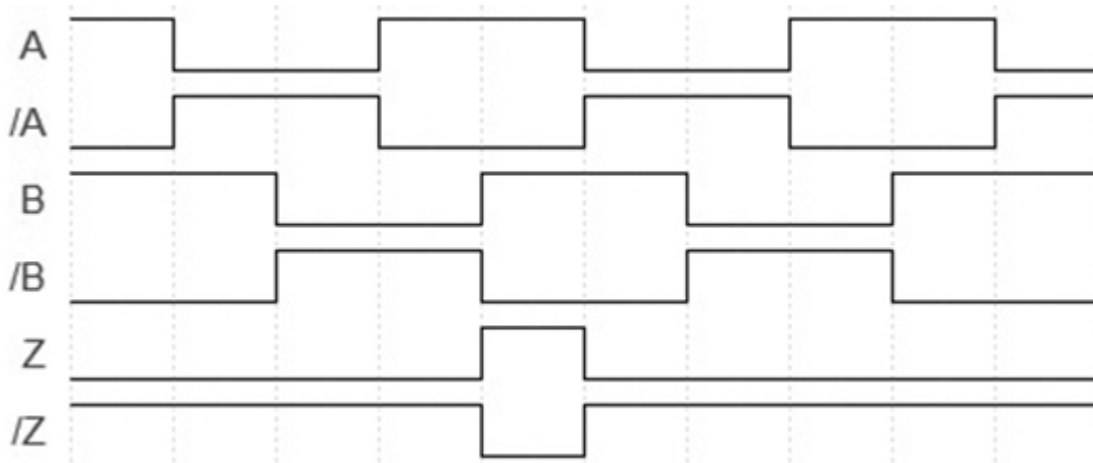
Pulse Diagram

Data Sheet
Printed at 15-02-2018 15:02

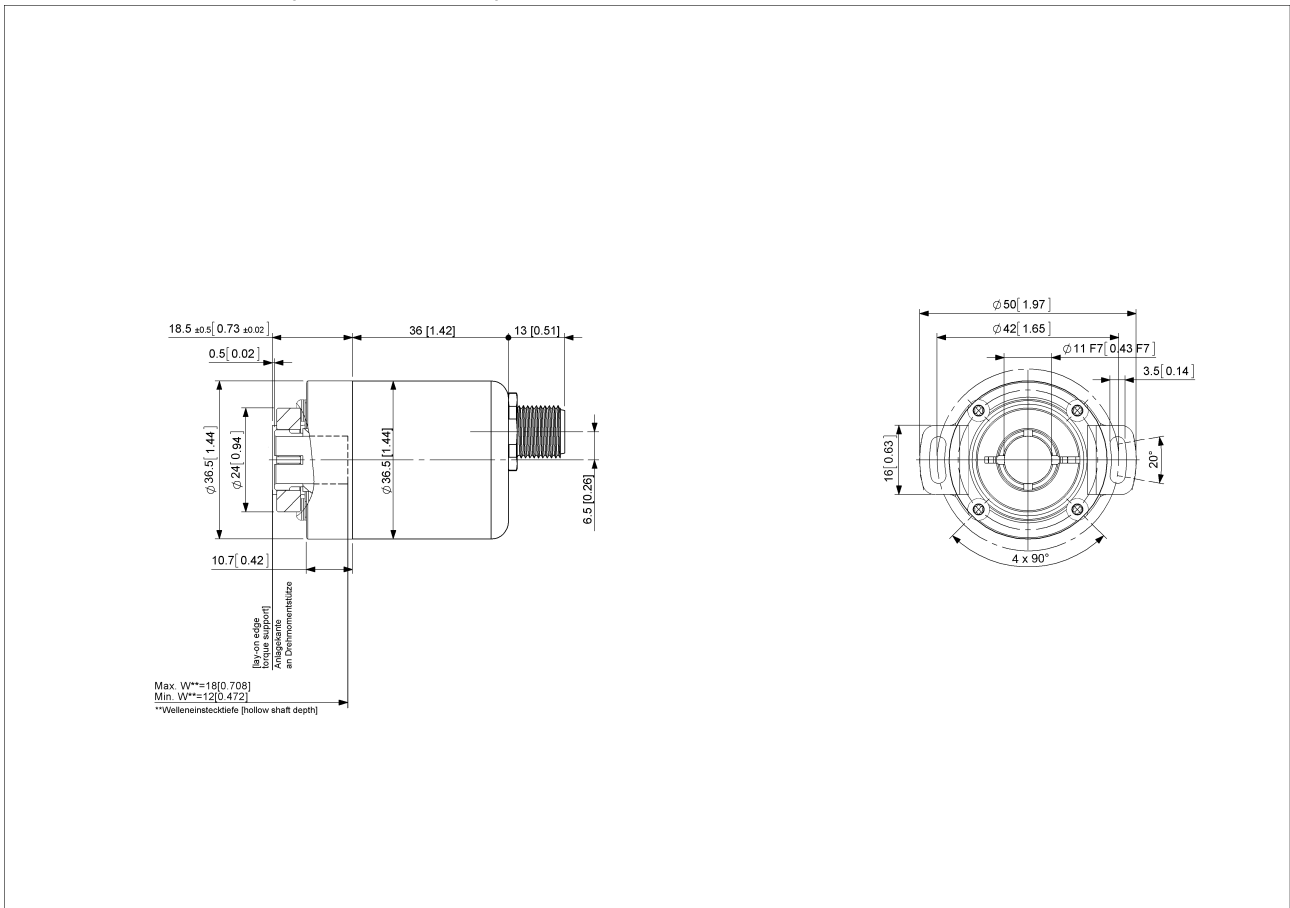


POSITAL

FRABA



Rotation Clockwise (seen on shaft)



[2D Drawing](#)

Accessories

Configuration/Programming Tools
UBIFAST Configuration Tool

Data Sheet
Printed at 15-02-2018 15:02



POSITAL

FRABA

Connectors & Cables

5m PUR Cable, 8pin, A-Coded, f

10m PUR Cable, 8pin, A-Coded, f

2m PUR Cable, 8pin, A-Coded, f

10m PUR Cable, 8pin, A-Coded, f

M12, 8pin A-Coded, Female

More

Displays

AP20-00 Counter

AP20-D0 Counter (4 dig. o/p)

AP20-0A Counter (analog o/p)

AP20-DA Counter (4 dig. + analog o/p)

DiMod Counter (Relay o/p)

More

Clamping Rings

Clamping Ring V12

Contact



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.

Data Sheet

Printed at 15-02-2018 15:02