

DR686

Direct replacement encoder for Siemens 1XP8001



Designed as a drop in replacement for the Siemens 1XP8001 encoder, the **DR686** is ready for delivery. The unique threaded shaft made this encoder hard to find, but it is a standard order at EPC.

Configurations can be ordered with either 1024 or 2048 CPR, with a 12 pin connector at the end of 18" of cable.

Features:

- Low profile (1.19") encoder body
- 2 piece construction; shaft screws into motor, then encoder attaches to shaft
- 1024 and 2048 CPR available
- Line Driver output
- Flex Arm mounting system makes installation easy and allows for insulation and isolation from vibration
- 12-pin connector at the end of 18" of cable
- Advanced Opto-ASIC technology for superior noise immunity
- Withstands temperatures up to 100° C
- IP64 sealing

Contact Customer Service for pricing. Discounts available for volume orders.

| ORDER NUMBER | CPR |
|---------------------|------------|
| DR686-01 | 1024 |
| DR686-02 | 2048 |

The Accu-Coder™ Advantage

- US-based since 1969
- Industry-best 3-year warranty
- Exceptional customer service
- Fast lead times – contact us for lead times and expedite options

ACCU»»CODER™
by Encoder Products Company

DR686

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MODEL DR686 SPECIFICATIONS

Electrical

Input Voltage.....4.75 to 28 VDC (16 VDC Max at 100° C)
 Input Current.....100 mA max with no output load
 Output Format.....Incremental – Two square waves in quadrature with channel A leading B for clockwise shaft rotation, as viewed from the mounting face. See Waveform Diagram below.
 Output Types.....Line Driver – 20 mA max per channel (Meets RS 422 at 5 VDC supply)
 Freq. Response.....200 kHz standard
 Noise Immunity.....Tested to BS EN61000-6-2; BS EN50081-2; BS EN61000-4-2; BS EN61000-4-3; BS EN61000-4-6, BS EN55011
 Quadrature.....67.5° electrical or better is typical, 54°
 Edge Separation.....electrical minimum at temperatures > 99° C
 Accuracy.....Within 0.01° mechanical from one cycle to any other cycle, or 0.6 arc minutes

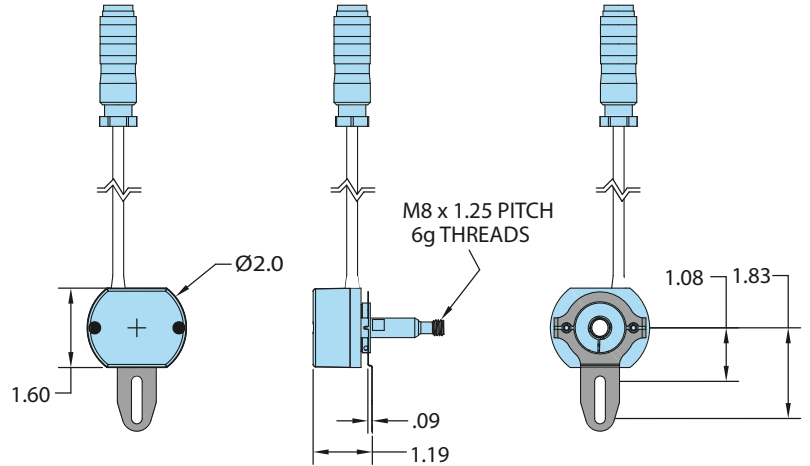
Mechanical

Max Shaft Speed.....7500 RPM
 User Shaft Tolerances
 Radial Runout.....0.007" max
 Axial Endplay.....±0.030" max
 Starting Torque.....0.50 oz-in
 Moment of Inertia.....3.9 X 10⁻⁴ oz-in-sec²
 Max Acceleration.....1 X 10³ rad/sec²
 Electrical Conn.....18" cable (foil and braid shield, 24 AWG conductors) with 12-pin connector
 Housing.....Black non-corrosive finish
 Mounting.....Flex Arm Mount standard
 Weight.....3.5 oz typical

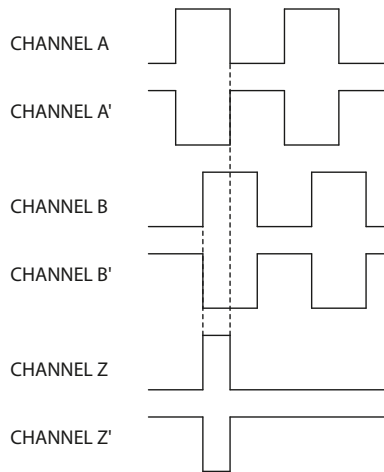
Environmental

Operating Temp.....0° to 100° C
 Storage Temp.....-40° to 100° C
 Humidity.....98% RH non-condensing
 Vibration.....10 g @ 58 to 500 Hz
 Shock.....50 g @ 11 ms duration
 Sealing.....IP64

DR686 Dimensions



DR686 Waveform Diagram



DR686 Wiring Table

| DR686 WIRING | |
|--------------|------------|
| PIN | FUNCTION |
| A | CHANNEL B' |
| B | +VDC |
| C | CHANNEL Z |
| D | CHANNEL Z' |
| E | CHANNEL A |
| F | CHANNEL A' |
| G | +VDC |
| H | CHANNEL B |
| J | N/C |
| K | COMMON |
| L | COMMON |
| M | +VDC |

Don't see the exact encoder you need?

Call (800) 366-5412 and our Technical Sales Department will cross-reference your encoder to the correct EPC model.