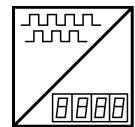


PRODIS-INC

Digital Process Meter for Incremental Sensors



- For ASM Position Sensors and Encoders with incremental output
- Integrated sensor supply
- Counting rate up to 250 KHz
- 6-digit LED display
- Relative measurement mode
- RS-232 interface
- Optional 4 comparator outputs

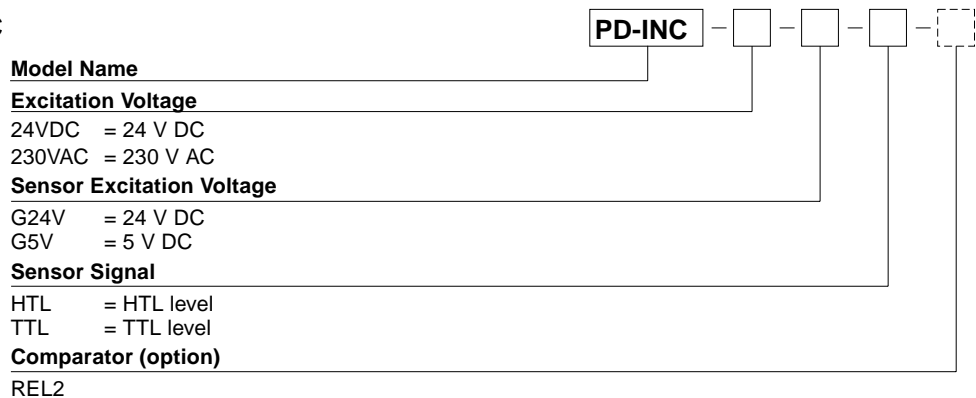


Description

PRODIS-INC is designed for use with incremental position sensors to display angles and displacements. The fast counter processes 90° phase shifted A,B signals (quadrature signals) for direction and counting information. Sensor excitation is supplied from the meter. With four membrane keys all parameters can be programmed for the special application. An zero signal and a reference signal can be used for calibration of the measurement system. Optional comparator functions with 4 NPN open-collector outputs are available, 2 of them also as relay output

| Specifications | | |
|-------------------------------|--------------|---|
| Display | | 6-digit 7-segment LED, 14 mm high, decimal point programmable |
| Excitation voltage/current | | 24 V DC $\pm 10\%$ / 150 mA, 85-230 V AC / 180 mA max. |
| Counting rate | | 250 kHz maximum, 1 MHz edge frequency |
| Sensor excitation | | 24 V DC/300 mA or 5 V DC/500 mA |
| Inputs | | A, B, Z, T (reference signal) |
| Connection | | Terminal strip 12-pole, excitation 3-pole |
| Operation temperature | | -10 ... 40 °C |
| Storage temperature | | -20 ... 85 °C |
| Weight | | Approx. 250 g |
| Protection class | | Front IP60, back IP40 |
| Humidity | | 95% R.H., non condensing |
| Comparator outputs (option) | Relay NPN | 250 V AC/5 A, 30 V DC/5 A 24 V max./50 mA to GND |
| Electromagnetic compatibility | | Directive 73/23/EEC: DIN EN 61010:1994-03 |
| Safety of equipment | | Directive 89/336/EEC |

Order Code PRODIS-INC



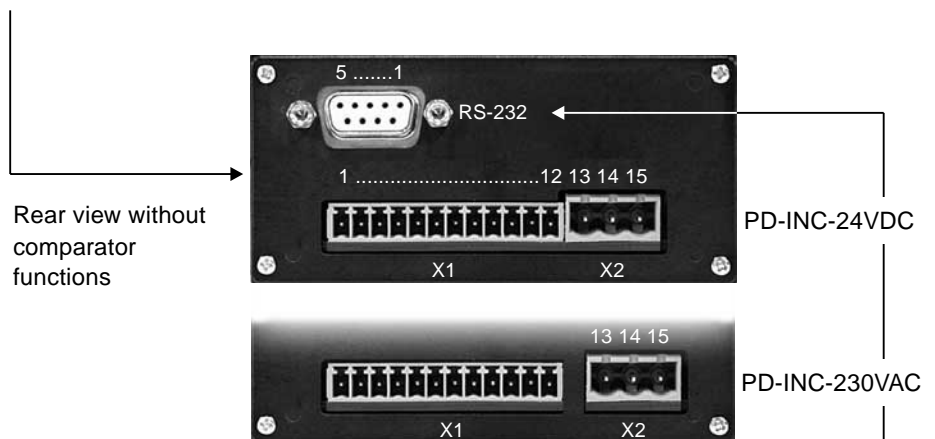
Order Example: PD - INC - 24VDC - G24V - HTL

PRODIS-INC Digital Process Meter for Incremental Sensors



| | | |
|--|---|--|
| Programmable Parameters / Value Range | Value range display, offset, limit values | -999999 up to +999999 |
| | Divisor, Multiplier | 0 up to 59999 |
| | Other programmable parameters | Counting direction, decimal point position, last-value memory, Z signal evaluation, display brightness |
| | Signal T | Manual zero, key lock, display value hold, Z release, relative measurement |

| Wiring basic equipment | Signals | Connector X1 Pin No. | Connector X2 Pin No. |
|-------------------------------|------------------------------------|-----------------------------|-----------------------------|
| | Sensor +U _B | 1 | |
| | Sensor 0 V (GND) | 2 | |
| | Signal <u>A</u> | 4 | |
| | Signal <u>A</u> | 5 | |
| | Signal <u>B</u> | 6 | |
| | Signal <u>B</u> | 7 | |
| | Signal <u>Z</u> (zero signal) | 8 | |
| | Signal <u>Z</u> (zero signal) | 9 | |
| | Signal <u>T</u> (reference signal) | 10 | |
| | Signal <u>T</u> (reference signal) | 11 | |
| | GND | 12 | |
| | PD-INC-24VDC | | |
| | Excitation +24 V | | 13 |
| | Excitation 0 V | | 14 |
| | PD-INC-230VAC | | |
| | Excitation | | 13 / 15 |
| | Protective ground | | 14 |

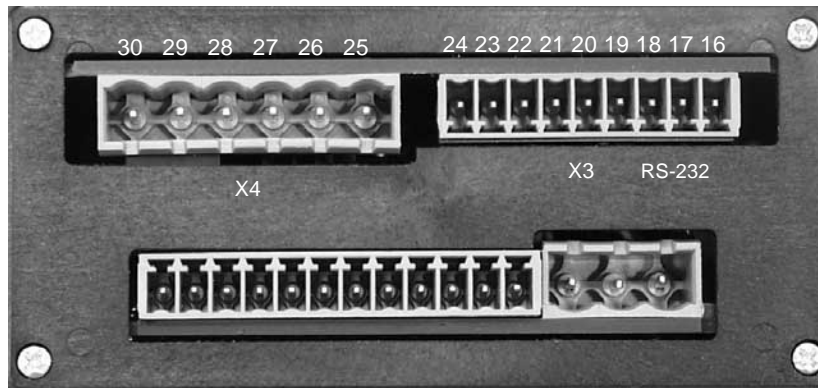


| | | | |
|-------------------------|-------------------|---|-------------------------------|
| RS-232 Interface | Level | RS-232: ±8 V, galvanically isolated | |
| | Data format | 1 start bit, 8 data bits, 1 stop bit, no parity | |
| | Transmission rate | 4800 / 9600 / 19200 Baud | |
| | Signals | Connector X3 Pin No. | DSUB Connector Pin No. |
| | TxD | 17 | 2 |
| | RxD | 16 | 3 |
| | GND | 18 | 5 |

PRODIS-INC Digital Process Meter for incremental Sensors

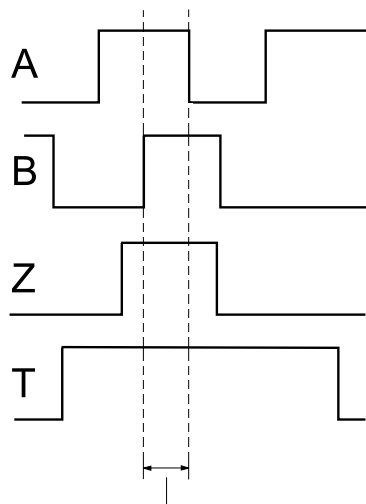


Rear view with
comparator
functions



| Comparator functions (option) | 4 comparator outputs: 1 & 2 = relay and NPN output, 3 & 4 = NPN outputs | | LED 1 is on when relay 1 is in operation |
|----------------------------------|---|----------------------|--|
| | Signals | Connector X4 Pin No. | Connector X3 Pin No. |
| | NPN1 collector | | 20 |
| | NPN2 collector | | 21 |
| | NPN3 collector | | 22 |
| | NPN4 collector | | 23 |
| | NPN GND | | 24 |
| | NPN +U _B (24 V) | | 19 |
| | Relay1 NO | 25 | |
| | Relay1 NC | 27 | |
| | Relay1 COM | 26 | |
| | Relay2 NO | 28 | |
| | Relay2 NC | 30 | |
| | Relay2 COM | 29 | |

Zero signal Z and
reference signal T

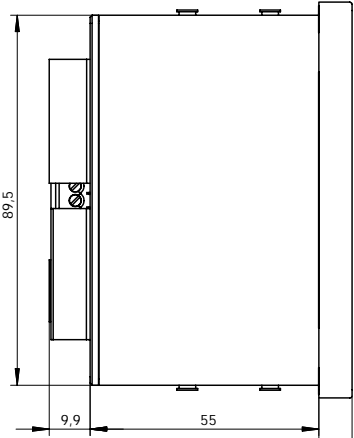
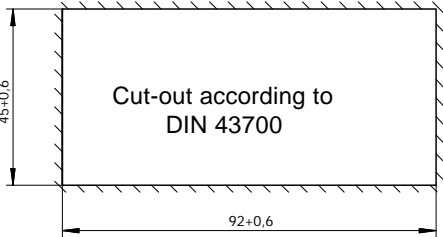
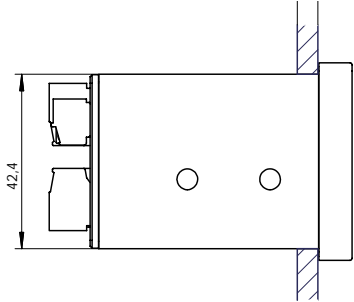
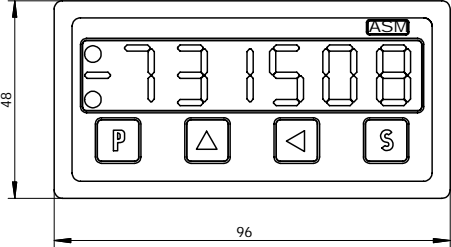


Valid range (A & B & Z) resp. (A & B & Z & T)

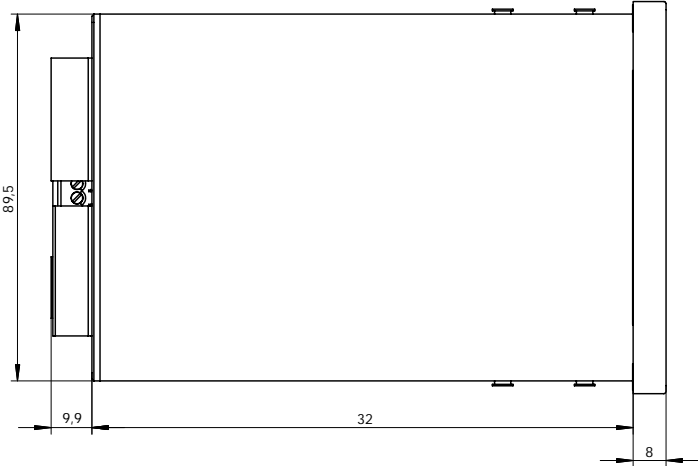
PRODIS-INC Digital Process Meter for incremental Sensors



Outline drawing



PD - INC - 24VDC



PD - INC - 230VAC