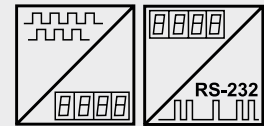


**PRODIS®**  
**PD-INC**  
**Digital process meter for incremental sensors**



- For WS® position sensors with incremental outputs
- Integrated sensor supply
- Counting rate up to 250 kHz (<1 MHz edge frequency)
- 6-digit LED display
- RS-232 interface
- Optional 4 comparator outputs
- Easy programming



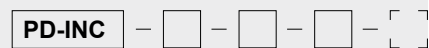
**Description**

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, additional 2 of them have relay output.

**Specifications**

Display	6-digit, 7-segment LED, height 14 mm, decimal point programmable
Counting frequency	250 kHz max., 1 MHz edge frequency
Excitation voltage/current	24 V DC ±10%/150 mA, residual ripple 1% <sub>ss</sub> ; 85-250 V AC, 50-60 Hz/180 mA max.
Sensor excitation	24 V DC/300 mA or 5V DC/500 mA
Inputs	A, B, Z, T (reference signal)
Comparator outputs (option)	Relay NPN
	250 V AC/5 A, 30 V DC/5 A 24 V max./50 mA to GND
Connection	Terminal strip 12-pole, excitation 3-pole
Operating temperature	-10 ... +40 °C
Storage temperature	-20 ... +85 °C
Weight	24 V DC: approx. 250 g; 230 V AC: approx. 400 g
Protection class	Front IP60, rear IP40
Humidity	Max. 80 % R.H., non condensing
Safety of equipment	Directive 73/23/EWG: DIN EN61010:2002-03
EMC	Directive 89/336/EWG

**Order Code PRODIS-INC**



**Model name**

**Excitation voltage**

24VDC = 24 V DC

230VAC = 85...250 V AC

**Sensor excitation voltage**

G24V = 24 V DC

G5V = 5 V DC

**Sensor signal**

HTL = HTL level with excitation voltage G24V

TTL = TTL level with excitation voltage G5V or G24V

**Options**

REL2 = Comparator

DT = Desktop version

**Order example: PD - INC - 24VDC - G24V - HTL - REL2**

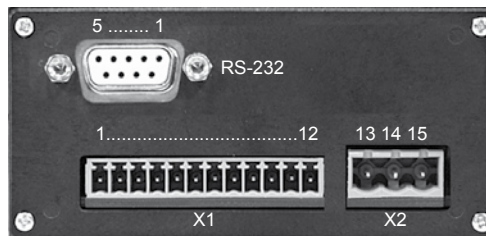
**PRODIS<sup>®</sup>**  
**PD-INC**  
**Digital process meter for incremental sensors**



<b>Programmable parameters / value range</b>	Value range display, offset, limit values	-999999 to +999999
	Divisor, Multiplier	0 to 999999
	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 activation

<b>Wiring basic unit</b>	<b>Signals</b>	<b>Connector X1 pin no.</b>	<b>Connector X2 pin no.</b>
	Sensor +U <sub>B</sub>	1	
	Sensor 0 V (GND)	2	
	Signal A	4	
	Signal $\bar{A}$	5	
	Signal B	6	
	Signal $\bar{B}$	7	
	Signal Z (zero signal)	8	
	Signal $\bar{Z}$ (zero signal)	9	
	Signal T (reference signal)	10	
	Signal $\bar{T}$ (reference signal)	11	
	GND	12	
	PD-INC-24VDC		
	Excitation +24 V		13
	Excitation 0 V (GND)		14
	PD-INC-230VAC		
	Excitation		13, 15
	Protective ground		14

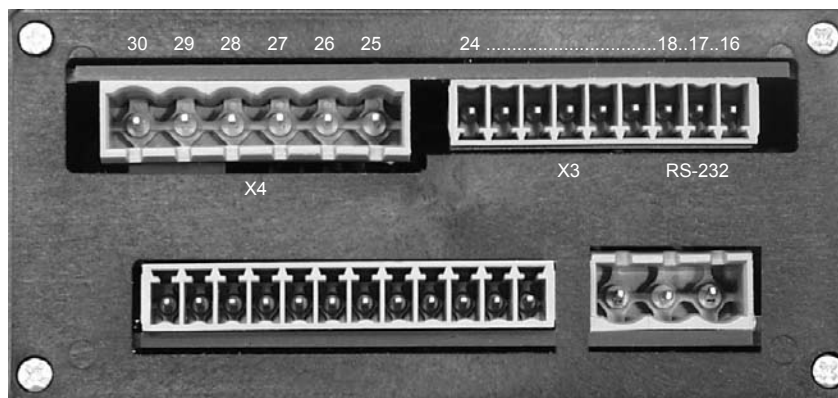
Rear view without comparator outputs



<b>RS-232 interface</b>	Level	RS-232: ±8 V, galvanically isolated	
	Data format	1 start bit, 8 data bits, 1 stop bit, no parity	
	Transmission rate	4800 / 9600 / ... / 115200 Baud	
	<b>Signals</b>	<b>Connector X3 Pin No.</b>	<b>D-Sub Pin No.</b>
	TxD	17	2
RxD	16	3	
GND	18	5	

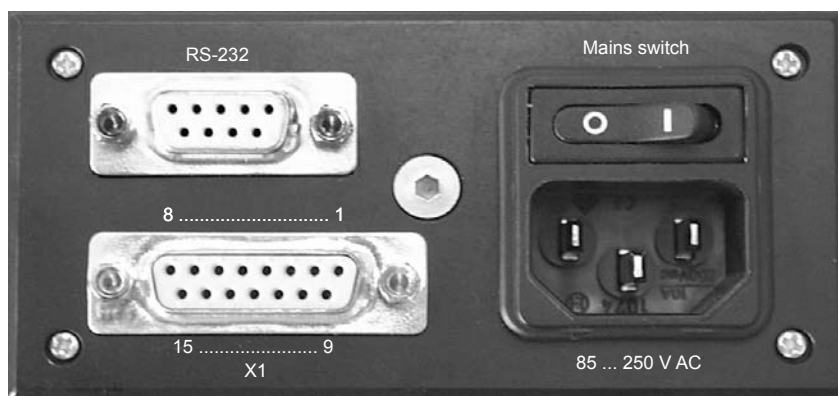
Rear view with comparator outputs and outline drawings see pages 90 and 91

Rear view with comparator Output



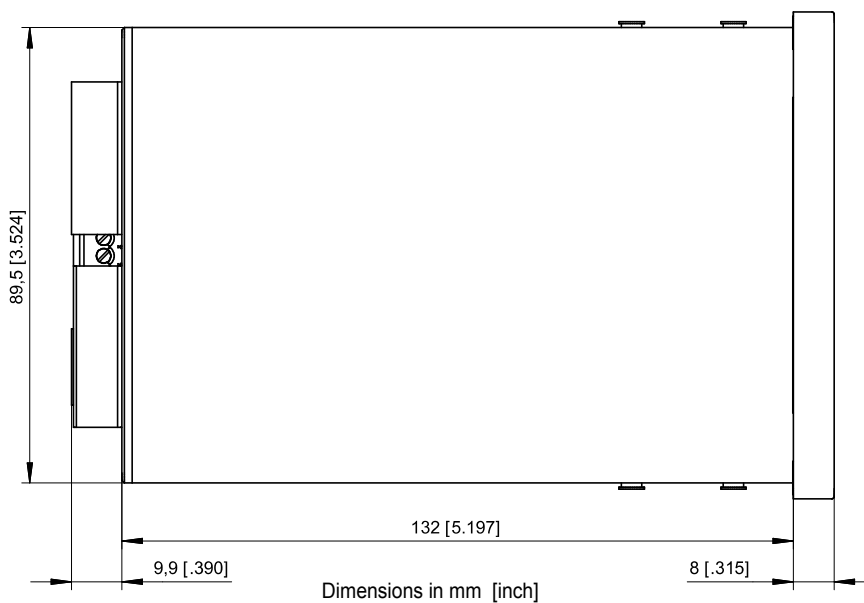
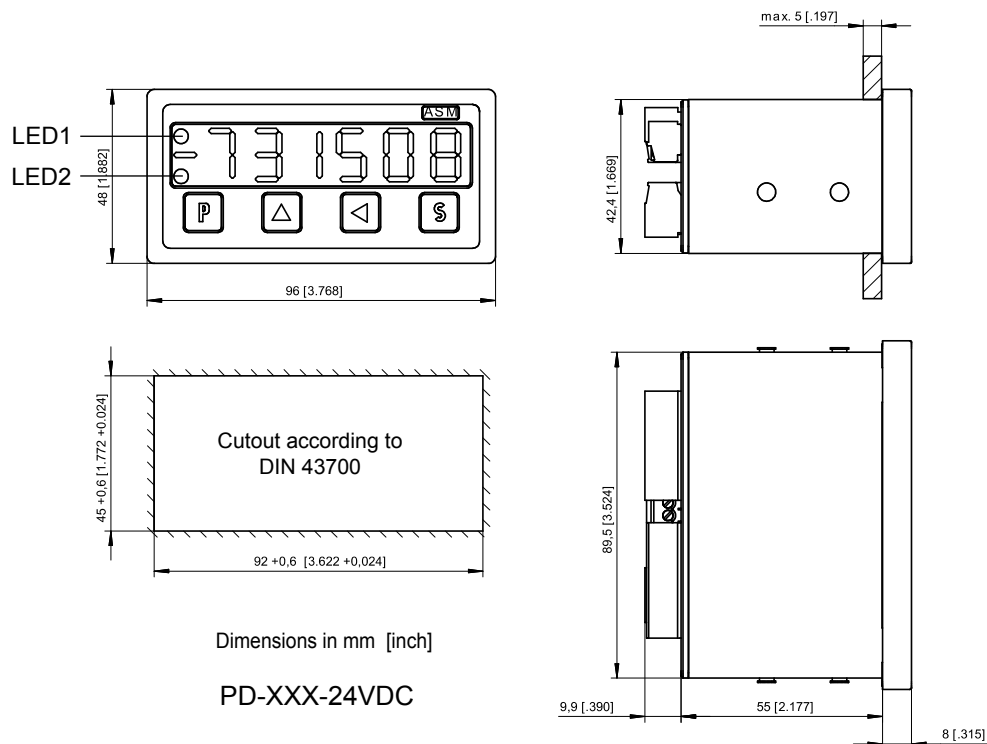
Comparator function (option)	Comparator	Comparator output	Relay	Connector X4 pin no.	LED
	NPN Collector	Connector X3 pin no.			
Comparator 1	NPN1	20	Relay 1	25 27 26	LED1
			NO		
Comparator 2	NPN2	21	Relay 2	28 30 29	LED2
			NO		
Comparator 3	NPN3	22			
Comparator 4	NPN4	23			
	NPN GND	24			
	NPN U <sub>B</sub> (+24V)	19			

Desktop version (option)



Wiring of connector X1 see table at page 85 (PD-ADC), page 87 (PD-INC) resp. page 89 (PD-SSI).

**Outline drawing**



PD-XXX-230VAC

Dimensions informative only.  
 For guaranteed dimensions  
 consult factory.