Potentiometric Sensor
Typ: PC-PTN

POSITION CONTROL
MEASUREMENT ENGINEERING

Datasheet

- Twin bearing actuating rod
- Mountable over backlash free pivots heads with a large angle of free movement
- 0-10 VDC, 4-20 mA Analog output or digital Modbus RS485
- Maximum angular movement up to ±30°
- Potentiometric measuring stroke up to 750 mm
- Absolute measurement of displacement
- Very long life up to 100 million movements
- High operating speed 5 m/s
- The grooves provide an excellent alternative to the usual system

PC-PTN is built easy mounting by double pivot heads. It's a high precision analog output industrial linear motion transducer with a long lasting conductive track suitable for absolute position measuring in control and Measurement applications. Designed for the direct, absolute measurement of displacement or angle in control regulation and measuring applications.

Mechanical fixing and self-aligning linkage using 2 ball joints. Maximum angular movement angle is up to ± 30°

High resolution (0.01 mm) combined with a stroke length of up to 750 mm permits the accurate measurement of linear displacement.

PC-PTN Series 0-10 VDC or 4-20 mA Analog Output

Optional: Digital Modbus ASCII RS 485

Transducers are mainly used in :

- Geotechnical engineering
- Crack Meter
- Tension Control
- Structural Monitoring
- Transfer Machines
- Hydraulic Machines
- Sheet Metal Working Machines
- Bending Presses
- Textile Machines

Technical Specifications	
Measurement Ranges [mm]	50 - 75 - 100 - 125 - 150 - 175 - 200 - 225 - 250 - 275 - 300 - 325 - 350 - 360 - 375 - 400 - 450 - 500 - 550 - 600 - 650 - 700 - 750
Output Signals	0-10 VDC, 4-20 mA Analog Output or Digital Modbus
Independent Linearity	± 0,25% analog and ± 0,1% digital (24 bit ADC)
Electrical Connection	4 pin male socket
Power Supply	24 VDC or 9-30 Volt Modbus Version
Resistance	5 K-Ohm ±10% tolerance
Temperature Range	-30°C +100°C
Life	100 million movements
Mechanical Fixing	With 2 ball-joints
Rod Material	Stainless steel
Housing Material	Anodized aluminium

Position-Control · Messtechnik GmbH · Franzstraße 9 · 66299 Friedrichsthal
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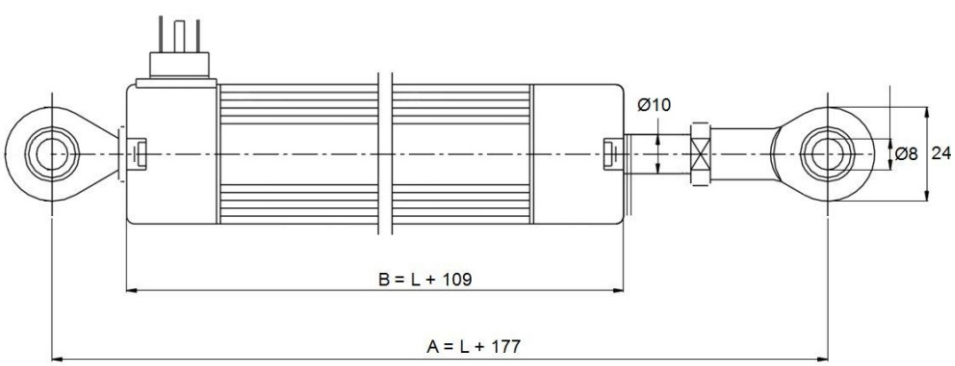
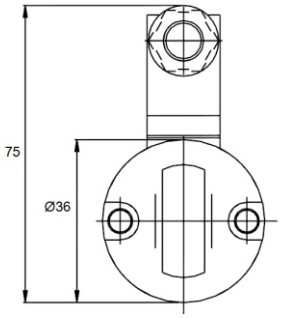
POSITION CONTROL
MEASUREMENT ENGINEERING

Order Code





TYPE	PTN 50	PTN 75	PTN 100	PTN 125	PTN 150	PTN 175	PTN 200	PTN 225	PTN 250	PTN 275	PTN 300
STROKE	50	75	100	125	150	175	200	225	250	275	300
MECHANICAL STROKE (mm)	54	79	104	129	154	179	204	229	254	279	304
ELECTRICAL STROKE (mm)	50	75	100	125	150	175	200	225	250	275	300
MECHANICAL DIMENSIONS											
BETWEEN PIVOT HEADS (A) (mm) ±2 mm	227	252	277	302	327	352	377	402	427	452	477
BODY LENGTH (B) (mm) ±2 mm	159	184	209	234	259	284	309	334	359	384	409

TYPE	PTN 350	PTN 360	PTN 375	PTN 400	PTN 450	PTN 500	PTN 550	PTN 600	PTN 650	PTN 700	PTN 750
STROKE	350	360	375	400	450	500	550	600	650	700	750
MECHANICAL STROKE (mm)	354	364	379	404	454	504	554	604	654	704	754
ELECTRICAL STROKE (mm)	350	360	375	400	450	500	550	600	650	700	750
MECHANICAL DIMENSIONS											
BETWEEN PIVOT HEADS (A) (mm) ±2 mm	527	537	552	577	627	677	727	777	827	877	927
BODY LENGTH (B) (mm) ±2 mm	459	469	484	509	559	609	659	709	759	809	859

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POSITION CONTROL
MEASUREMENT ENGINEERING

Order Code

Model No

Defined Stroke Range

Several standard lengths from 50 mm to 750 mm
*other lenghts on request

P	T	N	-	3	0	0	-	C

Output

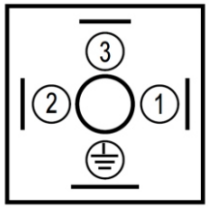
C : 0-10 VDC Analog Output
A : 4-20 mA Analog Output
D : Digital Modbus ASCII

CE

Included in Delivery

1 Connector / 4 pin female socket

Connections



10 VDC or 4-20 mA ANALOG OUTPUT

1. +24 VDC Supply
2. Analog Output
   0-10 VDC Analog Output
   or 4-20 mA Analog Output
3. GROUND
4. SHIELD

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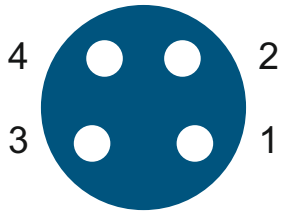
Layout sensor connectors M8 / RS485 Modbus interface

PIN No.	Colour internal wire	Layout
1	Brown	Vcc
2	White	Data +
3	Blue	Ground
4	Black	Data -



scheme female connector

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