

**PNS-3-T****Robust Single Axis High Precision Tilt Measuring System in aluminium table top housing**

- Coquille length 700 / 900 mm or 900 / 1100 mm
- Supply voltage via integrated rechargeable battery
- Analogue output  $\pm 5$  V or optional 4 - 20 mA
- 3½ digit LED Display (12mm digit height)
- Calibration of complete system included

**Description**

This PNS-3-T is a tilt measurement system developed for measuring the tilt of die-cast (ingot mold) in steel treatment. The power supply and display unit consist of a measuring amplifier with digital display in a robust aluminium table top housing and is designed to be used together with a high-precision inclinometer and connection cable (different length and type available – see ordering information). The rechargeable built-in battery enables mobile data acquisition.

In scope of delivery, there is a high-class external battery charger. The power supply provides the voltage supply for the display, as well as for the precision inclinometer LSOC-3. The tilt angle will be displayed on the LED-Display in units of [mm] related to the coquille length. With a switch on the front, you can choose between the two related coquille length. These are 700 and 900 mm or 900 mm and 1100 mm, other coquille length are possible on request.

Additional accessories like mounting brackets, mechanical stops, etc. have to be procured by 3rd. party.

$\pm 3^\circ$  Inclination = 36,7 mm (coquille length 700 mm)

$\pm 3^\circ$  Inclination = 47,2 mm (coquille length 900 mm)

$\pm 3^\circ$  Inclination = 57,7 mm (coquille length 1100 mm)

**Specifications**

Number of measuring axis:	1
Supply voltage:	12 VDC via integrated rechargeable battery, at least 3 hours battery time, alternative supply over external power supply unit is possible (12 VDC unit in scope of delivery not included), Operating voltage external battery charger: 115/230 V, 50/60 Hz
Power consumption:	ca. 5 W
Analog output:	$\pm 5$ V, max. 1 mA (short-time short-circuit proof), optional: 4 - 20 mA
Limit frequency (-3dB):	1 Hz
Input resistance:	>3 M $\Omega$
Non-Linearity:	$\pm 0.05$ % FS
Electrical connections:	Front side connector (next page for more details)
Enclosure:	Aluminium table top housing (IP20)
Dimensions (W x H x D):	190 x 90 x 186 mm
Weight:	3000 g
Storage temperature range:	-20°C to +60°C
Operating temperature range:	0°C to +50°C
Coquille scaling:	700 and 900 mm or 900 mm and 1100 mm, others on request

## ■ Electrical Connections

Electrical connections are made with connectors at the front panel.

### Connector STV-01/Conn.-1 (Power supply)

Type: Binder, 5-pin Series 423

Pin	Description
1	External supply voltage
2	GND
3	Battery charging
4	Analog output $\pm 5$ V
5	Analog GND

## ■ Ordering information

<b>PNS-3-T...</b>	Robust Single Axis High Precision Tilt Measuring System in aluminium table top housing
...-MOD10-...	Version 10
...-700-900-...	Coquille scaling 700mm and 900mm, switchable
...-900-1100-...	Coquille scaling 900mm and 1100mm, switchable
...-B05	Analog output $\pm 5$ V
...-420	Analog output 4 – 20 mA
<b>KA-LSOC-PNS-3-...</b>	Connection cable between Measuring System and Inclinator
...-3	Cable length 3 m
...-5m	Cable length 5 m
...-SP-0.5m	Spiral cable length 0.5 m

### Important Note:

The PNS-3-T... is only purchasable in a set together with inclinometer and cable, because it is calibrated as a whole high precision measuring system at Althen GmbH.

## ■ Customized Requirements

Technical modifications according to customer requirements are available on request. Moreover, we deliver customized special solutions for a lot of measuring tasks in the section pressure, force, position and tilt measuring using our measuring transducers. Do not hesitate to contact us.