

DTD+

Very low differential pressure calibrator



model shown with VV option

- accuracy 0.05%
- resolution 1/10000 (1.10-4)
- DTD+5: range 0 to 5 mbar with 0.0005mbar resolution (0.05Pa)
- DTD+5bi: range -5 to +5 mbar with 0.001mbar resolution (0.1Pa)
- higher ranges available
- reference pressure port
- pressure relief valve
- front-panel reset
- adjustable display intensity
- rugged, stable, cost-effective
- optional dual-action pressure generator

Applications

- Calibration
- Maintenance
- Laboratory

NICHESENSOR

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DTD+_docen01b

Represented by

DTD+

Very low differential pressure calibrator

DESCRIPTION

Accurate measurement of very low differential or gauge pressures can be a difficult operation generally involving the use of complex, expensive and fragile equipment. The DTD+ calibrator offers a straightforward option. The DTD+ calibrator comprises of the following high-quality elements:

- a PAXP® display
- a DT series differential sensor fitted with "high-resolution" option
- an optional VV dual-action variable-volume offering a high-resolution pressure generator.

These two elements are assembled in an aluminium casing to offer a performance similar to the best calibrators, at minimal cost.

The extreme ruggedness (see the over-pressure capability) of this calibrator makes it the ideal tool for use in the laboratory or maintenance department.

There are two female M5 pressure ports on the front panel. One is fitted with a pressure relief valve. A reference pressure port is available on the back panel for true differential pressure calibration.

The display reset is simply achieved by pressing the RST key.

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RANGES AND PERFORMANCES

model	range	resolution	precision*	sensor	admissible over-pressure**
DTD+5	0 to 5 mbar	0.0005 mbar	0.05% (0,25Pa)	DT_ULP	500 mbar
DTD+5bi	-5 to +5 mbar	0.001 mbar	0.05% (0,5Pa)	DT_ULP	500 mbar
DTD+50	0 to 50 mbar	0.005 mbar	0.05% (2,5Pa)	DT_LP	3 bar

other ranges: on request

*= non-linearity, repeatability, hysteresis at reference temperature calculated by comparison to the best straight line (BSL)

**= the over-pressure that is admissible in either direction eventually requiring a minimal setting if a significant zero shift has occurred.

note: to get the best results, allow a 20 minutes warm-up time; cancel out the possible zero offset by pressing the RST key

stability	PAXP® display	DT sensor	DTD+	rdg= reading
18 to 28°C	0.03%rdg*+2mV	0.1%rdg	0.15%rdg	(stability after reset)
0 to 50°C	0.12%rdg+2mV	0.5%rdg	0.65%rdg	

DISPLAY

DISPLAY	5-digit 14mm red sunlight readable LEDs
	adjustable display intensity
FUNCTIONS	zeroing by Reset key
	display and program lock-out*
	programmable calibration parameters (see user instruction)
* = the code to enter programing mode is "1"	
note: entering in programing mode can alter the calibration parameters	

SENSOR

Please refer to the relevant DT_ULP and DT_LP datasheets.

DIMENSIONS

230x85x180mm; weight 2.3kg

RELATED PRODUCTS

DTD low pressure calibration system; DT sensors

specifications subject to change without notice



model shown with VV option



OPTIONAL PRESSURE FITTINGS

OPTIONAL PRESSURE FITTINGS M5 male to:

- | | |
|---|---|
| A | quick connect for semi-rigid 4 mm OD plastic tubing |
| B | quick connect for semi-rigid 6 mm OD plastic tubing |
| C | barbed fitting for 4 mm OD plastic tubing |
| D | barbed fitting for 6 mm OD plastic tubing |
| E | 1/8 BSPP female brass |
| F | 1/8 NPT female brass |
| G | Scanivalve TUBN-040 (dia 1.02mm) |
| H | Scanivalve TUBN-063 (dia 1.59mm) |
| I | plug |

OPTIONAL VARIABLE VOLUME

OPTIONAL VARIABLE VOLUME VV - specifications (no external load)

[refer to VV tds] - maximal relative pressure: 500mbar

- | | |
|---------------------------------|-------------------------------------|
| coarse setting: | 65Pa/turn at zero line pressure |
| coarse setting: | 500Pa/turn at 500mbar line pressure |
| number of coarse setting turns: | 36 |
| fine setting: | 3Pa/turn at zero line pressure |
| fine setting: | 20Pa/turn at 500mbar line pressure |
| number of fine setting turns: | 44 |

SUPPLY

The DTD+ calibrator is supplied with a mains cable and transformer.

The DTD+VV includes the variable pressure generator.