

DISPLAY ONE



Cost-effective, compact single channel display unit for the transmitters from the THERMOVAC series and for PTR 90.

Advantages to the User

- Power supply voltage for the transmitters
- Four digit mantissa in the range from 5×10^{-9} to 2000 mbar
- Readout selectable between mbar, Torr or Pascal
- 0 to 10 V chart recorder output via plug-in screw terminals
- The switching threshold of the transmitters has been looped through to plug-in terminals
- The transmitter switching threshold settings are displayed
- Compact bench top enclosure (1/4 19", 2 HU)
- For fitting into 19", 3 HU racks
- Supply voltage 100 – 240 V

Connectable Sensors

THERMOVAC

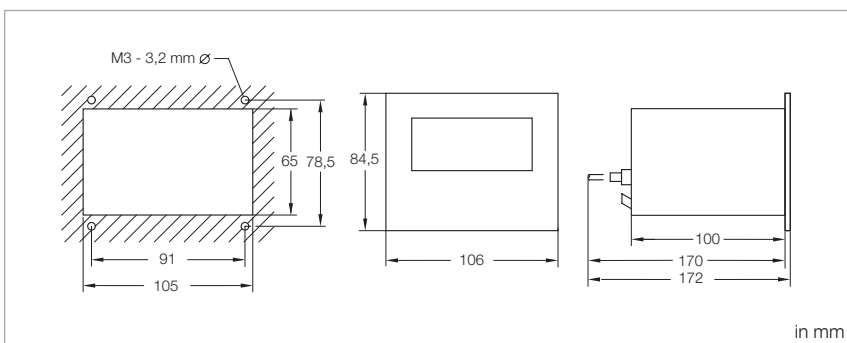
- TTR 100 *)
- TTR 101 / TTR 101
- TTR 101 S / TTR 101 N S
- TTR 211 *)
- TTR 216 S *)
- TTR 90 *)
- TTR 90 S *)
- TTR 91 / TTR 91 N
- TTR 91 S / TTR 91 N S
- TTR 96 S / TTR 96 N S
- TTR 911 / TTR 911 N
- TTR 916 / TTR 916 N

PENNINGVAC

- PTR 90 / PTR 90 N

Linear pressure sensor

- DU 200
- DU 201
- DU 2000
- DU 2001
- DU 2001 rel.



Dimensional drawing and panel cut-out for the DISPLAY ONE

*) Connecting of older sensors possible

Technical Data

DISPLAY ONE

Number of measurement channels	1	
Display for measured values	digital, 7 segment LED	
Measurement range	mbar (Torr)	5×10^{-9} to 2000 (3.8×10^{-9} to 1500)
Unit of measurement (selectable)	mbar, Torr, Pa	
Switching thresholds	from the transmitter are run to a terminal strip	
Chart recorder output ($R_a > 2,5 \text{ k}\Omega$)	0 – 10 Volt, characteristic corresponds to the connected transmitter	
Mains connection		
EURO version	V AC / Hz	100 – 240 / 50/60
US version	V AC / Hz	100 – 240 / 50/60

Ordering Information

DISPLAY ONE

	Part No.
DISPLAY ONE with mains cord (EURO and US)	230 001
THERMOVAC Transmitter PENNINGVAC Transmitter PTR 90	see chapter "Products", para. "Active Sensors"
Linear pressure sensors DU	see chapter "Products", para. "Additional Sensors"
Connection cables for THERMOVAC and PENNINGVAC (Type A)	see chapter "Products", para. "Connection Cables for Active Sensors"
Adapter panel for installation in a 3 HU, 19" rack	230 005

DISPLAY TWO, THREE



Cost-effective, operating and display units for the transmitters from the THERMOVAC and PENNINGVAC series.

All channels are displayed simultaneously.

Advantages to the User

- Power supply voltage for the transmitters
- Display range from 1×10^{-9} to 2000 mbar (0.75×10^{-9} to 1500 Torr)
- Readout selectable between mbar, Torr or Pascal
- Adjustable switching thresholds with variable hysteresis, floating change-over contacts and visual indication of the switching status in the display
- Option of entering gas correction factors
- Separate chart recorder outputs 0 – 10 V for each measurement channel
- Compact bench top enclosure (1/4 19", 3 HU)
- For fitting into 19", 3 HU racks

Connectable Sensors

THERMOVAC

- TTR 211 *)
- TTR 216 S *)
- TTR 90 *)
- TTR 91 / TTR 91 N
- TTR 96 S / TTR 96 N S
- TTR 100 *)
- TTR 100 S *)
- TTR 101 / TTR 101 N
- TTR 101 S / TTR 101 N S
- TTR 911 / TTR 911 N
- TTR 916 / TTR 916 N

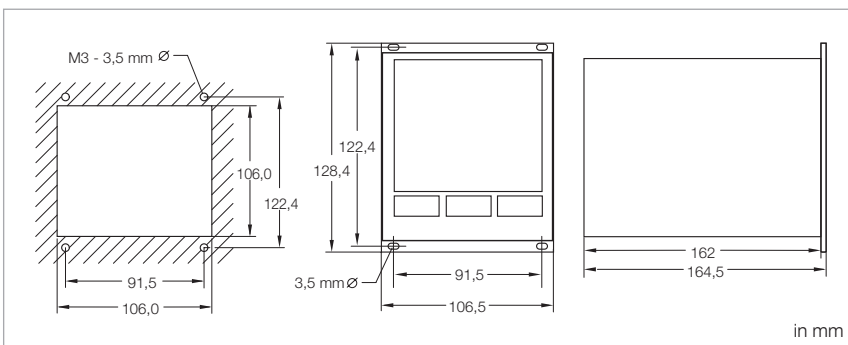
PENNINGVAC

- PTR 90 / PTR 90 N
- PTR 225 / PTR 225 N
- PTR 225 S / PTR 225 N S
- PTR 237 / PTR 237 N

Linear pressure sensor

- DU 200
- DU 201
- DU 2000
- DU 2001
- DU 2001 rel.

*) Connecting of older sensors possible



Dimensional drawing and panel cut-out for the DISPLAY TWO and THREE

Technical Data

DISPLAY TWO

DISPLAY THREE

Number of measurement channels	2	3
Display for measured values	2 (1 per channel)	3 (1 per channel)
Measurement range	mbar (Torr) 1×10^{-10} to 2000	
Unit of measurement (selectable)	adjustable	
Gas type correction (for PTR)	4 floating changeover contacts	6 floating changeover contacts
Sensor connection	60 V, 1 A DC / 30 V, 1 A AC	
Sensor power supply	V DC 1 per channel,	
Electrical outputs	configurable as 2nd switching threshold	
Switching thresholds	2 (1 per channel) sensor dependent adjustable	3 (1 per channel) sensor dependent adjustable
Number	4 floating changeover contacts	6 floating changeover contacts
Adjustment range	60 V, 1 A DC / 30 V, 1 A AC	60 V, 1 A DC / 30 V, 1 A AC
Hysteresis	1 per channel,	1 per channel,
Relay contact	configurable as 2nd switching threshold	configurable as 2nd switching threshold
Load rating		
Ready signal relay		
Error message	normally open contact	
Relay contact	60 V, 1 A DC / 30 V, 1 A AC	
Load rating	0 - 10 V per measurement channel, output characteristic corresponds to the connected transmitter	
Chart recorder output ($R_a > 10 \text{ k}\Omega$)	PENNINGVAC PTR: high voltage on	
Control input	85 - 240 / 50/60	
Mains connection	V AC / Hz	
Power consumption	W < 10	< 15
Nominal temperature range	°C +5 to +50	
Weight	kg (lbs) 1.3 (2.87)	1.4 (3.09)
Protection class	IP 40	

Ordering Information

DISPLAY TWO

DISPLAY THREE

	Part No.	Part No.
DISPLAY TWO / THREE with mains cord (EURO and US)	230 024	230 025
THERMOVAC Transmitter	see chapter "Products", para. "Active Sensors"	
PENNINGVAC Transmitter	see chapter "Products", para. "Active Sensors"	
Connection cables for THERMOVAC and PENNINGVAC (Type A)	see chapter "Products", para. "Connection Cables for Active Sensors"	