

Air Differential Pressure Transmitter

0-10VDC or 0-5VDC with 4-20mA outputs

Features

- 4 ranges available:
 - High Accuracy (0-25Pa to 0-100Pa - switch selectable)
 - Low (0-100Pa to 0-500Pa - switch selectable)
 - Standard (0-50Pa to 0-2500Pa - switch selectable)
 - High (0-5000Pa to 0-10000Pa - switch selectable)
- Accuracy typically $\leq \pm 0.5\%$ FSS
- Pressure Hysteresis typically $\pm 0.5\%$ FSO
- Fully calibrated
- Operating temperature -20°C to 70°C
- 24VAC or 24VDC supply
- Output 0-5VDC or 0-10VDC (selectable) with 4-20mA

Description

The WS-TPDPT7 range of air differential pressure transducers is designed for applications in ventilation/air conditioning systems, filter monitoring, building pressurisation and air leak detection systems.

The transmitters employ a solid state compensated pressure cell with microprocessor to provide superior linearity, measurement accuracy and sensitivity.

The WS-TPDPT7 incorporates zero pressure calibration at the touch of a button and provide multiple ranges with a \pm option defined by user selection switches.

The three main models have outputs of 0-5VDC or 0-10VDC with 4-20mA. The output voltage range is switch selectable. An optional LCD display is available. The standard models are rated at IP51 and an optional IP65 enclosure is available. Each transmitter is provided with 2 metres of tubing and 2 duct pilot fittings.

These transducers are ideal for direct connection to AIC's extensive range of DC analog input instrumentation or can be used with a PLC, Building Management System etc.

Visit [AIC's website \(http://www.aicpl.com.au\)](http://www.aicpl.com.au) for information about Amalgamated Instrument Co (AIC) instrumentation products.

Specifications

Ranges	High Accuracy 4 ranges 0-25Pa to 0-100Pa Low Range 5 ranges 0-100Pa to 0-500Pa Standard Range 8 ranges 0-50Pa to 0-2500Pa High Range 5 ranges 0-5000Pa to 0-10000Pa (switch selectable)
Supply Output	24 Volts AC or DC ($\pm 15\%$) 0-5VDC or 0-10VDC (selectable) with 4-20mA
Power Cons.	10mA plus mA output load (max 35mA)
Accuracy	High accuracy $\pm 0.5\%$ FSO Low range $\pm 0.5\%$ FSO Standard Range $\pm 0.25\%$ FSO High range $\pm 0.5\%$ FSO
Non-Linear/Hyst.	High accuracy $\pm 0.5\%$ FSO Low range $\pm 0.5\%$ FSO Standard $\pm 0.25\%$ FSO High range $\pm 0.5\%$ FSO
Operating temps	-20°C to $+70^{\circ}\text{C}$
Pressure Overload	All ranges 50kPa
Enclosure	Flame retardant ABS
Tube connections	2 x 6mm connections



WSTPDPT7-3.1-10

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Type	WS-TPDPT7/100 (High Accuracy)	WS-TPDPT7/500 (Low range)	WS-TPDPT7/2500	WS-TPFPT7/10000
Selectable Ranges	0-25Pa, 0-50Pa, 0-75Pa, 0-100Pa	0-100Pa, 0-200Pa, 0-300Pa, 0-400Pa, 0-500Pa	0-50Pa, 0-125Pa, 0-250Pa, 0-500Pa, 0-1000Pa, 0-1500Pa, 0-2000Pa, 0-2500Pa	0-5000Pa, 0-6000Pa, 0-7000Pa, 0-8000Pa, 0-9000Pa, 0-10000Pa
± ranges selection	Switch SW4 on	Switch SW4 on	Switch SW4 on	± not available
Supply Power Req.	24VDC/24VAC (±15%) - max 35mA	24VDC/24VAC (±15%) - max 35mA	24VDC/24VAC (±15%) - max 35mA	24VDC/24VAC (±15%) - max 35mA
Outputs	0-5VDC or 0-10VDC with 4-20mA	0-5VDC or 0-10VDC with 4-20mA	0-5VDC or 0-10VDC with 4-20mA	0-5VDC or 0-10VDC with 4-20mA
Accuracy	±0.5% FSS typical	±0.5% FSS typical	±0.25% FSS typical	±0.5% FSS typical
Non-lin./hysteresis	±0.5% FSS typical	±0.5% FSS typical	±0.25% FSS typical	±0.5% FSS typical
Operating temp.	-20 to +70°C	-20 to +70°C	-20 to +70°C	-20 to +70°C
Operating humidity	0-80% non-cond.	0-80% non-cond.	0-80% non-cond.	0-80% non-cond.
Pressure overload	50kPa	50kPa	50kPa	50kPa
Enclosure	Flame retardant ABS IP51 (opt. IP65)	Flame retardant ABS IP51 (opt. IP65)	Flame retardant ABS IP51 (opt. IP65)	Flame retardant ABS IP51 (opt. IP65)

Order Codes				
Standard housing	WS-TPDPT7/100	WS-TPDPT7/500	WS-TPDPT7/2500	WS-TPDPT7/10000
Standard with display	WS-TPDPT7/100/D	WS-TPDPT7/500/D	WS-TPDPT7/2500/D	WS-TPDPT7/10000/D
IP65 housing	WS-TPDPT/100/IP65	WS-TPDPT7/500/IP65	WS-TPDPT/2500/IP65	WS-TPDPT/10000/IP65



Range setting DIL switches

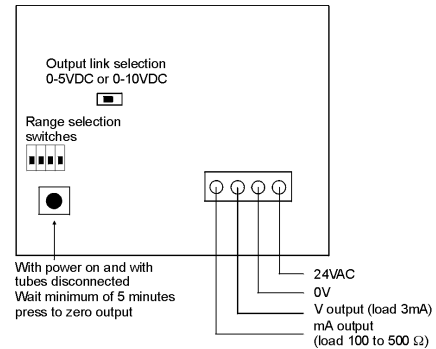
TPDPT7/100			
Range	SW1	SW2	SW3
0-25Pa	Off	Off	Off
0-50Pa	On	Off	Off
0-75Pa	Off	On	Off
0-100Pa	Off	Off	On
for ± ranges SW4 On			

TPDPT7/500			
Range	SW1	SW2	SW3
0-100Pa	Off	Off	Off
0-200Pa	On	Off	Off
0-300Pa	Off	On	Off
0-400Pa	Off	Off	On
0-500Pa	Off	On	On
for ± ranges SW4 On			

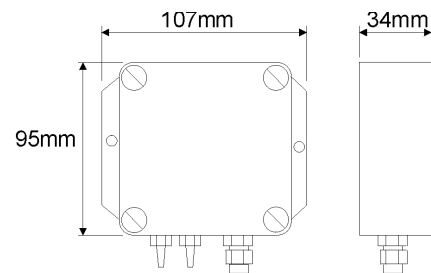
TPDPT7/2500			
Range	SW1	SW2	SW3
0-50Pa	Off	Off	Off
0-125Pa	On	Off	Off
0-250Pa	Off	On	Off
0-500Pa	On	On	Off
0-1000Pa	Off	Off	On
0-1500Pa	On	Off	On
0-2000Pa	Off	On	On
0-2500Pa	On	On	On
for ± ranges SW4 On			

TPDPT7/10000			
Range	SW1	SW2	SW3
0-5000Pa	Off	Off	Off
0-6000Pa	On	Off	Off
0-7000Pa	Off	On	Off
0-8000Pa	On	On	Off
0-9000Pa	On	Off	On
0-10000Pa	Off	Off	On
No ± selection on these ranges			

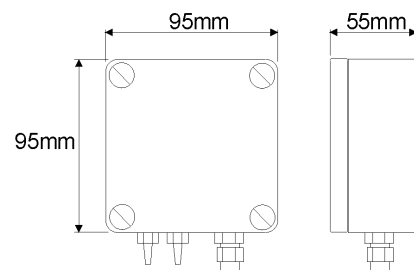
Connections & Controls



Dimensions



Standard housing



IP65 enclosure