AIR DP TRANSMITTER (ADPT)

MULTI-RANGE, 0-10V, 4-20mA (13-27V AC/DC)

| OVERVIEW |

The Flamefast multi-range ADPT provide a cost effect, compact solution for monitoring and controller pressure differentials in a wide range of ventilation applications, including monitoring filter degradation.

With a user selectable 0-10V or 3 wire 4-20mA output, and 10 selectable output ranges, the ADPT provides unrivalled flexibility. The high accuracy sensing element, combined with the manual and auto zero functions, provide long-term stability for the life of the sensor.

The output signal dampening can be set at 0.3, 3.0 or 10 seconds, to iron out any spikes, or soften when low level filtering are required.

| KEY FEATURES |

- 13-27V AC/DC Supply
- User selectable 0-10V or 4-20mA output
- User selectable signal dampening
- 10 user selectable output scalings
- Compact design
- Duct kit included as standard
- Manual and Auto Calibration functions
- **UK MANUFACTURED**

DIMENSIONS

Height 104mm | Width 790 mm | Depth 440mm

TECHNICAL SPECIFICATION

Power Supply	13-27V AC/DC	
Power Consumption	50mA @ 24V Max	
Analogue Outputs	0-10V (3 Wire) or 4-20mA (3 Wire)	
Pressure Type	Differential	
Sensor Type	Piezo-resistive	
Overload Pressure	70kPa	
Media Temp Range	-40 ~ 110°C	
Accuracy	<±3% FS	
Repeatability	<±0.3% FS / Year	
Process Connections	6mm Male (5mm ID Hose)	
Operating Conditions	Temp	0 ~ 50°C
	Humidity	0 ~ 95% (NC)
IP Rating	IP65	
Housing Material	PC/ABS	
Colour	Grey/Black	
Approval	CE, UKCA	

INSTALLER SELECTABLE OPTIONS

Output Signal Dampening	0.3, 3.0, 10.0 Seconds	
Output Scaling (Pa)	-250 ~ 250	0 ~ 300
	-50 ~ 50	0 ~ 500
	0 ~ 50	0 ~ 1000
	0 ~ 100	0 ~ 1500
	0 ~ 150	0 ~ 2500

PART NUMBERS & COMMON ACCESSORIES

PART NO	DESCRIPTION
ADPT	Air DP Transmitter (Multi-range) c/w Duct Kit

FLAMEFAST CONTROLS

T: 01925 281 249
W: www.flamefastcontrols.co.uk
E: sales@flamefastcontrols.co.uk

INSTALLATION & OPERATION
ADPT

TECHNICAL SPECIFICATION

Power Supply	13-27V AC/DC
Power Consumption	50mA @ 24V
Analogue Outputs	0-10V (3 Wire) or 4-20mA (3 Wire)
Pressure Type	Differential
Sensor Type	Piezo-resistive
Overload Pressure	70kPa
Media Temp Range	-40 ~ 110°C
Accuracy	<±3% FS
Repeatability	<±0.3% FS / Year
Process Connections	6mm Male (5mm ID Hose)
Operating Conditions	Temp 0 ~ 50°C Humidity 0 ~ 95% (NC)
IP Rating	IP65
Housing Material	PC/ABS
Colour	Black/Grey/Clear
Approval	CE, UKCA

IMPORTANT – Please read carefully:

- This product must be installed by a competent/qualified person in accordance with all relevant regulations and legislations.
- Ensure the Positive and Negative ports are correct prior to pressurisation.
- Isolate the supply to the unit before removing the cover.
- Do not over-pressurise the sensor, including blowing into the spigots or hoses – this can cause irreparable damage to the sensor.
- This product is designed for indoor use with standard atmospheric conditions.

INSTALLATION

The transmitter should be mounted as close as reasonably practical to the monitored points, as increased hose lengths may result is a pressure drop.

Ideally the unit should be mounted with the spigots and cable entry at the bottom. It can be mounted in a different orientation, however this may affect the IP rating if both hose connections are not being used, or the cable entry is not correctly sealed.

It is recommended that screened cable is used for the installation of this product.

OPERATION

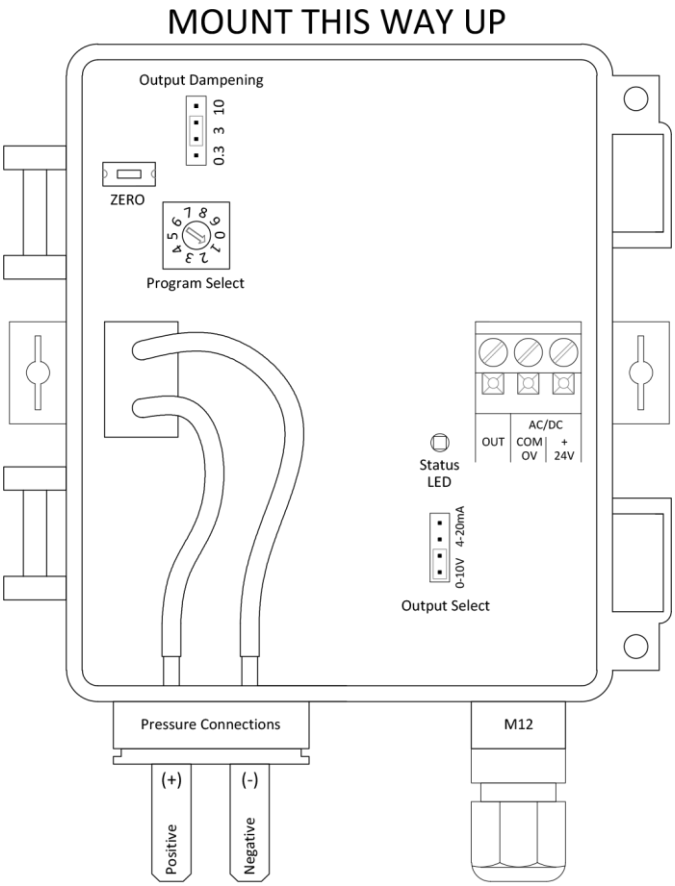
On Powerup, the LED will illuminate Green to confirm the unit is powered and operating correctly.

The analogue output will drive to 50% for the first 5 seconds, after which it will revert to the output relative to the pressure and unit scaling.

ZERO FUNCTION

The transmitters can be manually zeroed to ensure long term accuracy. To zero the unit, the pressure reading must be within 5% of factory zero to be accepted:

1. Either stop the air flow, or disconnect the pressure connections (external to the unit – the internal hoses should not be removed).
2. Leave for 30 seconds to ensure stability.
3. Hold the ZERO button in for 3 seconds.
4. The PCB mounted LED will flash 3 times to confirm the zero:
   - Green Successful
   - Red Fail
5. Reconnect the pressure port, ensuring the correct polarity.



ANALOGUE OUTPUT CONFIGURATION

Moving the Output jumper will select either V or mA.

OUTPUT SIGNAL DAMPENING

The output can be dampened to slow down the output response by averaging the live reading over a set number of seconds. This can be set to 0.3 (instant), 3 or 10 seconds.

OUTPUT SCALING SELECTION

Adjusting the program selection switch, rescales the analogue output:

Program	Range (Pascals)
1	0 ~ 2500
2	0 ~ 1500
3	0 ~ 1000
4	0 ~ 500
5	0 ~ 300
6	0 ~ 150
7	0 ~ 100
8	0 ~ 50
9	-50 ~ 50
0	-250 ~ 250

STATUS & TROUBLESHOOTING

If the unit is powered the POWER LED will illuminate Green. The Status LED will provide an indication of any sensor issues, and provide feedback:

LED	Fault Description
AMBER	Sensor Fault
GREEN (3 Flashes)	Zero Calibration Successful
RED (3 Flashes)	Zero Calibration Fail