

# AcuPRE™ DM Series

Duct Mount Differential Pressure Transmitter Datasheet



The AcuPRE DM series differential pressure transmitter utilizes high-accuracy MEMS transmitter and digital technology to measure positive, negative, or differential pressure. Designed for duct-mounted HVAC applications, it includes a static pressure probe for monitoring fans, blowers, and duct static pressure. The transmitter offers user-selectable settings such as zero calibration, pressure range, response time, and unit of measurement. The AcuPRE DM comes standard with an LCD module that supports 180° reverse installation for flexible wiring and application.

**Features** full range accuracy ensuring precise measurements.

- Designed for duct mount applications.
- Field selectable ranges as low as 0 to 0.1 inWC up to 0 to 40 inWC based on model number selection.
- Unidirectional or bidirectional measurements.
- 0.5/1/2/5s user selectable response time.
- User selectable units with DIP switches allowing quick unit conversion.
- All models come with five-digit LCD module that supports 180° reverse installation.
- IP 65 rated water-resistant & UL94V-0 fire retardant enclosure.
- Easy zero calibration.



## Specifications

### ELECTRICAL

Voltage Power	16~28VAC/ 16~35VDC
Current Power	18.5~35VDC (RL=500Ω); 8.5~35VDC (RL=0Ω)
Output (Based on Select Models)	0~5VDC, 0~10VDC, 4~20mA (2 Wires)
Output Load	≤500Ω (Current), ≥2kΩ (Voltage)

### ENVIRONMENTAL

Medium	Non-Combustible, Non-Corrosive Air
Medium Temperature Range	0 to 60°C (32 to 140°F)
Operating Temperature Range	-20 to 70°C (-4 to 158°F)
Temperature Compensation	0 to 50°C (32 to 122°F)
Working Pressure	Overload 10xFS, Burst 15xFS

### MECHANICAL

Mounting	2-Screw with Back Mount Pressure Probe, Duct Mount
Connection	5mm ID Tubing (0.19")
Weight	200g (0.44 lbs)
Display	5-Digit LCD, Size 44x18mm (1.73" x 0.70"), with Unit Indication

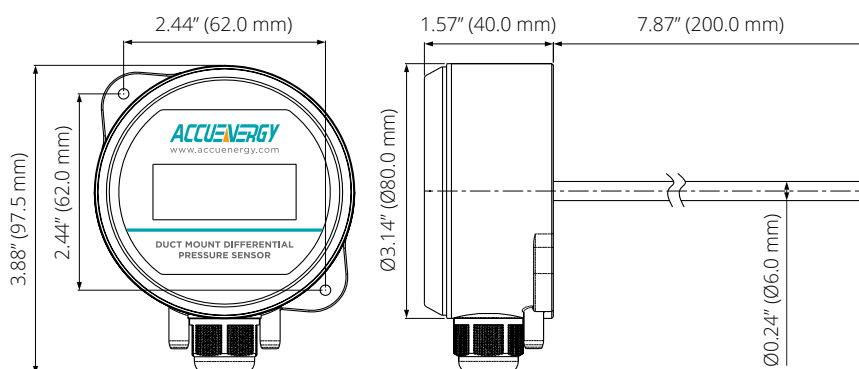
### PERFORMANCE

Accuracy	±1.0% FS (±2.0% FS@ 0.10 inWC Range)
Stability	±0.5% FS/Year
Thermal Effect	<0.08% FS/°C (FS) (+/- 0.045% FS/°F)
Response Time	0.5/1/2/5s. Can be Set by DIP Switches

### CERTIFICATIONS/WARRANTY

Enclosure Material	ABS+PC (Housing) & PC (Cover), Fire Retardant UL94V-0
Protection	IP65
Agency Approvals	CE
Warranty	5 Years

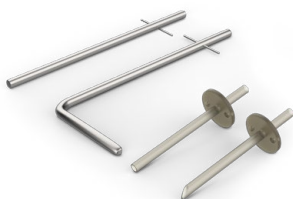
## Dimensions



## ACCESSORIES

### Pressure Tip

Designed to be compatible with AcuPRE DP sensors, these pressure tips are available in straight or L-type, 0° or 60° angle openings, stainless steel or ABS. Supported in both static and total pressure, ensuring reliable pressure measurements in demanding environments.



### Clear PVC Tubing

Accuenergy offers clear PVC tubing designed for all AcuPRE differential pressure sensors. Available in 6.5' (2m) and 330' (100m) options, suitable for various installation conditions.



### Pressure Pickup Port

A pickup port is an inlet connected to a DP sensor, allowing the sensor to sample air pressure while preventing large particles from entering the pressure ports and damaging the sensor. Accuenergy offers both room pressure pickup ports and wall plate stainless steel pickup ports.



## Range Selection Chart

+ Range Code	Unit, Range, and Display Resolution				
	inWC	Pascals	kPa	mmWC	mbar
1	0.1	25	0.025	2.5	0.25
	0.25	60	0.06	6	0.6
	0.5	125	0.125	12	1.25
2	1	250	0.25	25	2.5
	2	500	0.5	50	5
	4	1000	1	100	10
3	10	2500	2.5	250	25
	20	5000	5	500	50
	40	10000	10	1000	100

## Ordering Information

+ Model - Range (inWC) - Display - Output				+ Accessories (Optional)	
AcuPRE-DM	01:	0-0.1", 0.25", 0.5" Unidirectional	A: With Display	1:	4 to 20mA
	02:	0-1.0", 2.0", 4.0" Unidirectional		2:	0 to 5 VDC
	03:	0-10", 20", 40" Unidirectional		3:	0 to 10 VDC
	04:	-0.125" to +0.125", -0.25" to +0.25" Bidirectional			
	05:	-0.50" to +0.50", -1.0" to +1.0", -2.0" to +2.0" Bidirectional			
Ordering Example: AcuPRE-DM-04-A-3					
<div>MOD-TRONIC INSTRUMENTS LIMITED</div>					
www.mod-tronic.com   sales@mod-tronic.com   1-800-794-5883					
Revision Date: August 2025 Version: 1.0.0					
Specs Subject To Change Without Notice.					
+ AcuPRE-XX-001		Clear PVC Tubing 0.19"(5mm) ID x 0.27"(7mm) OD x 6.5' (2m) Length.			
+ AcuPRE-XX-002		Clear PVC Tubing 0.19"(5mm) ID x 0.27"(7mm) OD x 330' (100m) Length.			
+ AcuPRE-XX-003		Static pressure tip, straight type, ABS, 0° angle opening.			
+ AcuPRE-XX-004		Total pressure tip, straight type, ABS, 60° angle opening.			
+ AcuPRE-XX-005		Static pressure tip, straight type, 304SS, 0° angle opening, 125mm (4.92").			
+ AcuPRE-XX-006		Static pressure tip, straight type, 304SS, 0° angle opening, 200mm (7.87").			
+ uPRE-XX-007		Static pressure tip, L shape type, 304SS, 0° angle opening, 125mm (4.92").			
+ AcuPRE-XX-008		Static pressure tip, L shape type, 304SS, 0° angle opening, 200mm (7.87").			
+ AcuPRE-XX-009		Room pressure pickup port.			
+ AcuPRE-XX-010		Wall plate stainless steel pickup port.			

# AcuPRE™ PM Series

Panel Mount Differential Pressure Transmitter Datasheet



With a compact design and DIN rail mount support, the AcuPRE PM series is an ideal fit for panel builds used in OEM applications. It utilizes advanced MEMS technology and digital processing for  $\pm 1.0\%$  full scale accuracy to deliver the most reliable real-time pressure data. Includes user-configurable response time and easy zero calibration, enabling the ultimate flexibility to meet diverse monitoring needs. Its slim form factor and various output options make it a versatile solution for easy installation in panel builds that require precise pressure control.

## Features

- $\pm 1.0\%$  full range accuracy ensuring precise measurements.
- Compact DIN rail mount design for OEM applications.
- Wide selection of pressure ranges as low as 0 to 0.1 inWC up to 0 to 40 inWC based on model number selection.
- Unidirectional or bidirectional measurements.
- 0.5/1/2/5s user selectable response time.
- IP 30 rated water-resistant & UL94V-0 fire retardant enclosure.
- Easy zero calibration to eliminate offset errors.



## Specifications

### ELECTRICAL

Voltage Power	16~28VAC/ 16~35VDC
Current Power	18.5~35VDC (RL=500Ω), 8.5~35VDC (RL=0Ω)
Output (Based on Select Models)	0~10VDC, 4~20mA (2 Wires)
Output Load	$\leq 500\Omega$ (Current), $\geq 2k\Omega$ (Voltage)

### ENVIRONMENTAL

Medium	Non-Combustible, Non-Corrosive Air
Medium Temperature Range	0 to 60°C (32 to 140°F)
Operating Temperature Range	-20 to 70°C (-4 to 158°F)
Temperature Compensation	0 to 50°C (32 to 122°F)
Working Pressure	Overload 10xFS, Burst 15xFS

### MECHANICAL

Mounting	35mm DIN Rail
Connection	5mm ID Tubing (0.19") High/Low Pressure Ports
Weight	110g (0.24 lbs)

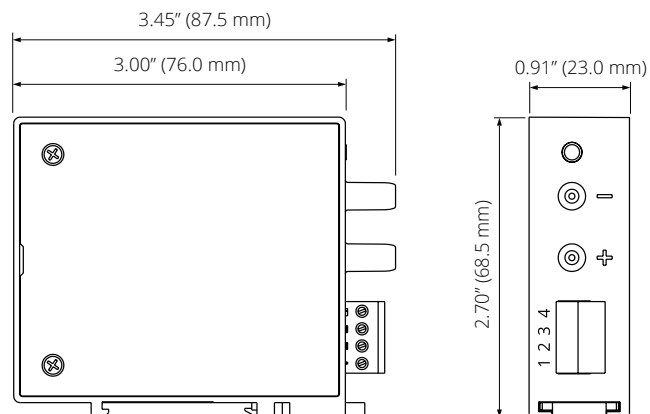
### PERFORMANCE

Accuracy	$\pm 1.0\%$ FS
Stability	$\pm 0.5\%$ FS/Year
Thermal Effect % FS/°C (Zero/FS)	$\pm 0.05/0.08$
Response Time	0.5/1/2/5s, Can be Set by DIP Switches

### CERTIFICATIONS/WARRANTY

Enclosure Material	Fire-Proof ABS+PC, Fire Retardant UL94V-0
Protection	IP30
Agency Approvals	CE
Warranty	5 Years

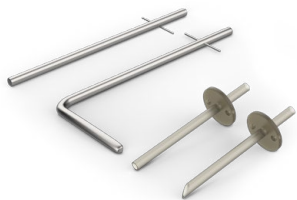
## Dimensions



## ACCESSORIES

### Pressure Tip

Designed to be compatible with AcuPRE DP sensors, these pressure tips are available in straight or L-type, 0° or 60° angle openings, stainless steel or ABS. Supported in both static and total pressure, ensuring reliable pressure measurements in demanding environments.



### Clear PVC Tubing

Accuenergy offers clear PVC tubing designed for all AcuPRE differential pressure sensors. Available in 6.5' (2m) and 330' (100m) options, suitable for various installation conditions.



### Pressure Pickup Port

A pickup port is an inlet connected to a DP sensor, allowing the sensor to sample air pressure while preventing large particles from entering the pressure ports and damaging the sensor. Accuenergy offers both room pressure pickup ports and wall plate stainless steel pickup ports.



## Ordering Information

+

Model	Pressure Range	Accuracy	Output
AcuPRE-PM	01: 0 to 0.10" Unidirectional	B: $\pm 1.0\%$ FS	1: 4 to 20mA
	02: 0 to 0.25" Unidirectional		2: 0 to 10 VDC
	03: 0 to 0.50" Unidirectional		
	04: 0 to 1.00" Unidirectional		
	05: 0 to 2.00" Unidirectional		
	06: 0 to 4.00" Unidirectional		
	07: 0 to 10.00" Unidirectional		
	08: 0 to 20.00" Unidirectional		
	09: 0 to 40.00" Unidirectional		
	10: -0.125 to +0.125" Bidirectional		
	11: -0.25 to +0.25" Bidirectional		
	12: -0.50 to +0.50" Bidirectional		
	13: -1.0 to +1.0" Bidirectional		
	14: -2.0 to +2.0" Bidirectional		
	15: -5.0 to +5.0" Bidirectional		

+

### Accessories (Optional)

AcuPRE-XX-001	Clear PVC Tubing 0.19"(5mm) ID x 0.27"(7mm) OD x 6.5' (2m) Length
AcuPRE-XX-002	Clear PVC Tubing 0.19"(5mm) ID x 0.27"(7mm) OD x 330' (100m) Length
AcuPRE-XX-003	Static pressure tip, straight type, ABS, 0° angle opening.
AcuPRE-XX-004	Total pressure tip, straight type, ABS, 60° angle opening.
AcuPRE-XX-005	Static pressure tip, straight type, 304SS, 0° angle opening, 125mm (4.92").
AcuPRE-XX-006	Static pressure tip, straight type, 304SS, 0° angle opening, 200mm (7.87").
AcuPRE-XX-007	Static pressure tip, L shape type, 304SS, 0° angle opening, 125mm (4.92").
AcuPRE-XX-008	Static pressure tip, L shape type, 304SS, 0° angle opening, 200mm (7.87").
AcuPRE-XX-009	Room pressure pickup port.
AcuPRE-XX-010	Wall plate stainless steel pickup port.

Ordering Example: AcuPRE-PM-04-B-1



[www.mod-tronic.com](http://www.mod-tronic.com) | [sales@mod-tronic.com](mailto:sales@mod-tronic.com) | 1-800-794-5883

Revision Date: August 2025 Version: 1.0.0  
Specs Subject To Change Without Notice.