

**Dual Display,
Programmable,
Digital Pressure Transmitter**

PE 05.70

2-wire Loop-powered

Model : AW-P-70



Excellent accuracy & long term stability
LED 4-digit & bar-graph display
Programmable digital pressure transmitter
Damping adjustable
Zero & span adjustable
10 : 1 range turn-down
3 mode display units
Easy operation by front keys
A wide range of applications in ;
Chemical & petrochemical process
Food & drug process controls
Hydraulic & pneumatic equipments
Machines tools & automatic machinery
LPG & LNG transmission & storage controls
Automation system & plant engineering
Water treatment
Pump & motor controls

GENERAL DESCRIPTION

AW-P-70 series Microprocessor based digital pressure transmitter is a signal conditioned, media-isolated high precision device that can be used for wide variety of applications. It is a water resistant, compact field case for complete protection from harsh environments even in explosive area.

A compact field case and 4 digit LED local display make it easy to control process and adjust the value for measuring range, damping, zero & span.

They are available as absolute and relative pressure types with either 2-wire current or 3-wire voltage output. The pressure to be measured acts through thin corrosion resistant stainless steel 316L diaphragm on a piezoresistive silicon measuring element. The transmitting medium of pressure is oil. The measuring element contains diffused piezoresistive resistors which are connected into a Wheatstone bridge. The output signal of the bridge is temperature compensated and converted into a standardized current or voltage output signal.

TECHINCAL DATA

Input

Measuring Technology	Piezo-resistive Silicon Sensor
Pressure Reference	Gauge, Absolute, Vacuum & Compound
Pressure Range(bar)	Gauge : 0~0.1, 0.2, 0.5, 1, 2, 3, 4, 5, 8, 10, 15, 20, 25, 35, 50, 100, 200, 350 Absolute : 0~1, 2, 5, 10, 20, 50, 100, 200, 350 Vacuum : -1~0 Compound : -1~1, 2, 3, 5, 10, 20, 35, 50, 100, 200, 350
	Note) Other ranges are available on request.
Over Pressure Safety	3 x Full scale without damage

Output

Output Signal	4~20mA DC, 2-wire Analog output signal Other output signal available on request
Local Display	4 Digits, 7-segment digital LED Bar graph(Red)
Unit Display	3 Mode(Engineering Unit, %, Current Output Value)
Electrical Connection	1/2"PF Female

Electrical Specifications

Excitation Voltage	10~36V DC
Load Resistance max. @24V	750ohm at 24V
Influence of Excitation	0.01% FSO/V
Damping Adjustment	0.0~9.9/sec
Range Turn-down	Max. 10 : 1 of span

Performance Specifications

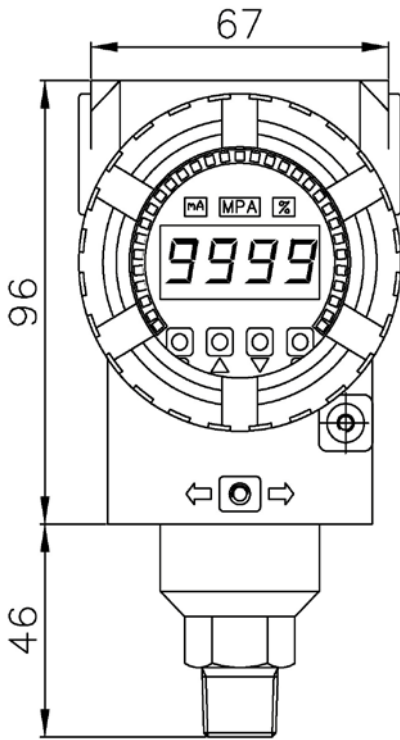
Accuracy	±0.25% FSO ±0.5% FSO for sealed diaphragm
Non-linearity	±0.100% FSO typical
Repeatability	±0.015% FSO typical
Pressure Hysteresis	±0.010% FSO typical
Long Term Stability	±0.3% FSO over 6 months
Operating Temperature	-40~125 °C
Temperature Compensated	0~82 °C
Thermal Sensitivity Shift	±0.2% FSO typical
Thermal Zero Shift	±0.2% FSO typical

Physical Specifications

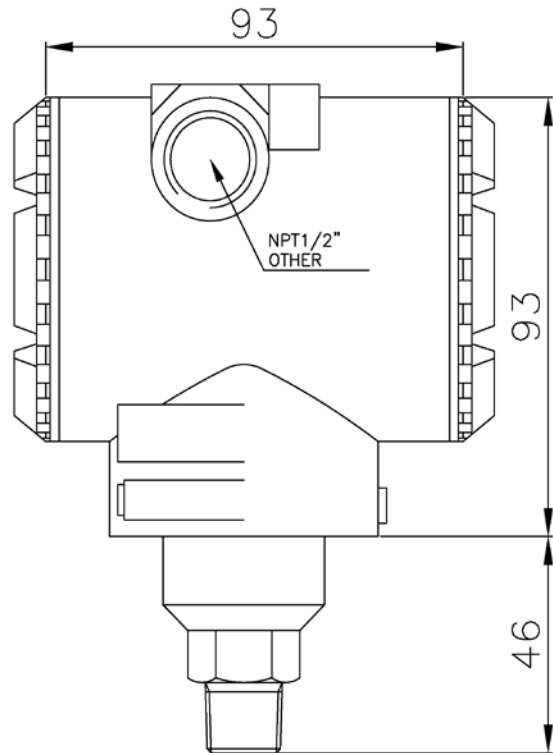
Process Connection	Thread Type : PT, NPT, PF Thread Size : 1/4", 3/8", 1/2", 3/4" Flange Type : JIS, ANSI, DIN(Flate or "I" flange)
Process Media	Gases & liquids compatible with stainless steel 316
Materials	Case : ALDC Diaphragm : Stainless steel 316L Wetted parts : Stainless steel 316 Note) Wetted part teflon lining on request
Enclosure Rating	IP65 Ex d IIB T6

DIMENSION

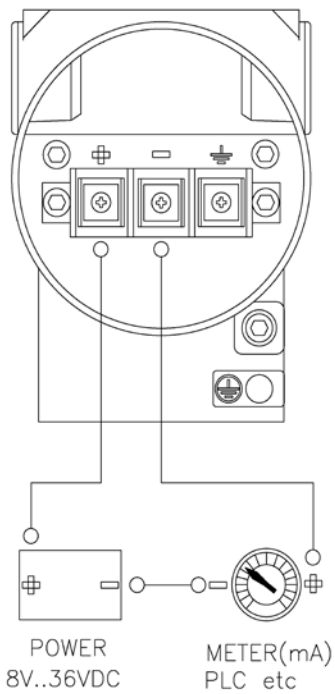
Front View



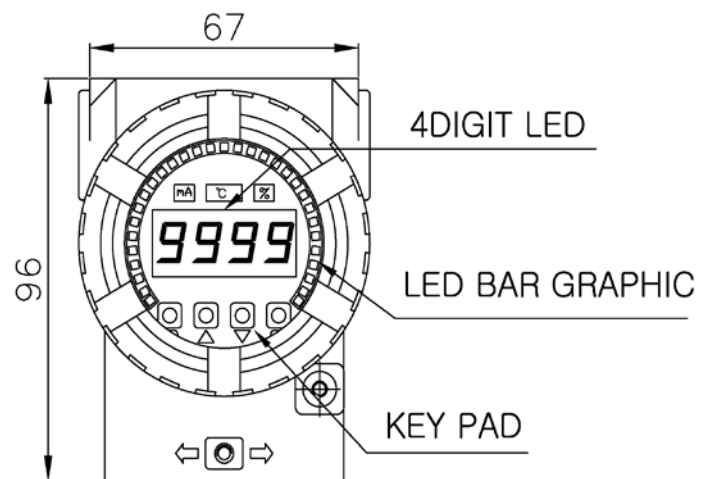
Side View



Electrical Connection(wiring)



Display Parts



ORDERING INFORMATION

Base Model

AW-P-70

Enclosure Rating

- W : Weather Proof
- E : Explosion Proof

Process Connection Type

- A : NPT
- B : PT
- C : PF
- X : Other types of connection available on request

Process Connection Size

- 1 : 1/4"
- 2 : 3/8"
- 3 : 1/2"
- X : others on request

Range

- | | | | |
|-----|---------|-----|----------|
| 110 | : -1~0 | 126 | : -1~1 |
| 111 | : 0~0.1 | 127 | : -1~2 |
| 112 | : 0~0.2 | 128 | : -1~5 |
| 113 | : 0~0.5 | 129 | : -1~10 |
| 114 | : 0~1 | 130 | : -1~15 |
| 115 | : 0~2 | 131 | : -1~20 |
| 116 | : 0~5 | 132 | : -1~25 |
| 117 | : 0~10 | 133 | : -1~35 |
| 118 | : 0~15 | 134 | : -1~50 |
| 119 | : 0~20 | 135 | : -1~100 |
| 120 | : 0~25 | 136 | : -1~250 |
| 121 | : 0~35 | 137 | : -1~350 |
| 122 | : 0~50 | | |
| 123 | : 0~100 | | |
| 124 | : 0~250 | | |
| 125 | : 0~350 | | |

Unit

- A : kgf/cm² or mmHg+kgf/cm²
- B : mmHg
- C : bar
- D : psi
- E : Mpa
- F : Kpa
- X : Other calibration unit available on request

Output Signal

- 0 : None-output(Only digital gauge)
- 1 : 4~20mA DC, 2-wire
- 2 : 1~5V DC, 3-wire(Optional)

Option

- 1 : None
- x : Sealed diaphragm,
Refer to data sheet No.0416

AW-P-70	W	B	3	117	A	1	1
---------	---	---	---	-----	---	---	---

Note 1) Other ranges are available on request.

Note 2) Please mark "abs." for absolute pressure.

Specifications subject to change without notice.