

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

PS 05.30

Model : AW-P-30



- Adjustable 2 switch points**
- LED 4-digit & bar-graph display**
- Programmable pressure switch & transmitter**
- Damping adjustable**
- Zero & span adjustable**
- 10 : 1 range turn-down**
- Explosion protected Ex d IIB T6**
- 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**
 - Engine monitoring & control**
 - Pump & motor controls**

GENERAL DESCRIPTION

AW-P-30 Series microprocessor based digital pressure switch combined analog output signal is ideal for the applications that require high accurate process control and monitoring. AW-P-30 with its built-in piezoresistive silicon pressure cell, 4 digit digital LED & bar-graph display, 2 switching points, 4~20mA analog output signal and a front function keys, offers the user all the advantages of a modern electronic pressure measurement. External adjustments allow the user to set the pressure ranges, switch points, damping, zero & span calibration, etc.

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 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	Digital gauge(Without output signal) 2 Relay points(High/Low) 4~20mA Analog output signal 4~20mA Analog output signal & 2 Relay points(High/Low)
Local Display	4 Digits, 7-segment digital LED LED Bar-graph(Red) 2 alarm lamps Unit for process value
Electrical Connection	Field case
Conduit Connection	1/2"PT, female

Electrical Specifications

Excitation Voltage	24V DC $\pm 10\%$ 85~260V AC Optional
Supply Current	Max. 0.15A
Signal Current Limited	Max. 23.0mA
Load Limitation	Max. 750ohm

Peformance Specifications

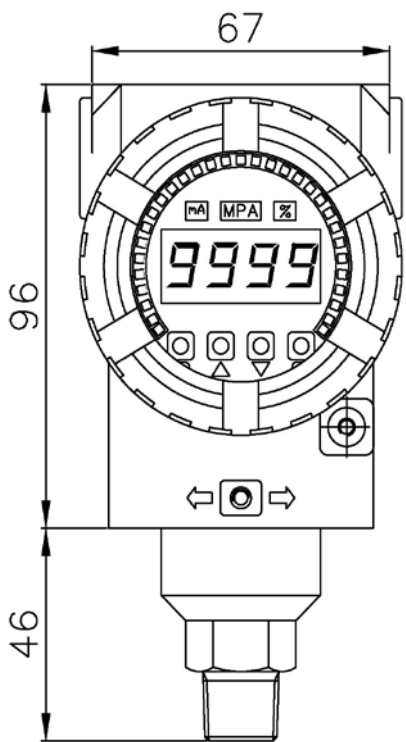
Accuracy	$\pm 0.25\%$ FSO $\pm 0.5\%$ FSO for sealed diaphragm
Non-linearity	$\pm 0.100\%$ FSO typical
Repeatability	$\pm 0.015\%$ FSO typical
Pressure Hysteresis	$\pm 0.010\%$ FSO typical
Long Term Stability	$\pm 0.3\%$ FSO over 6 months
Operating Termperature	-40~125 °C
Temperature Compensated	0~82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

Physical Specifications

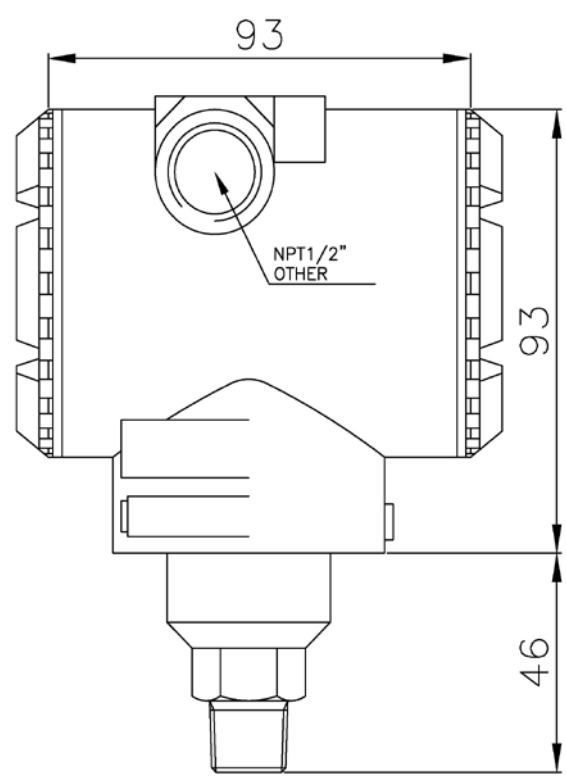
Process Connection	Thread Type : PT, NPT, PF Thread Size : 1/4", 3/8", 1/2", 3/4" Flange Type : JIS, ANSI, DIN(Flate or "I" flange)
Process Media	Gases & liquids compatible with stainless steel 316
Materials	Case : ALDC Diaphragm : Stainless steel 316L Wetted parts : Stainless steel 316 Note) Sealed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

DIMENSION

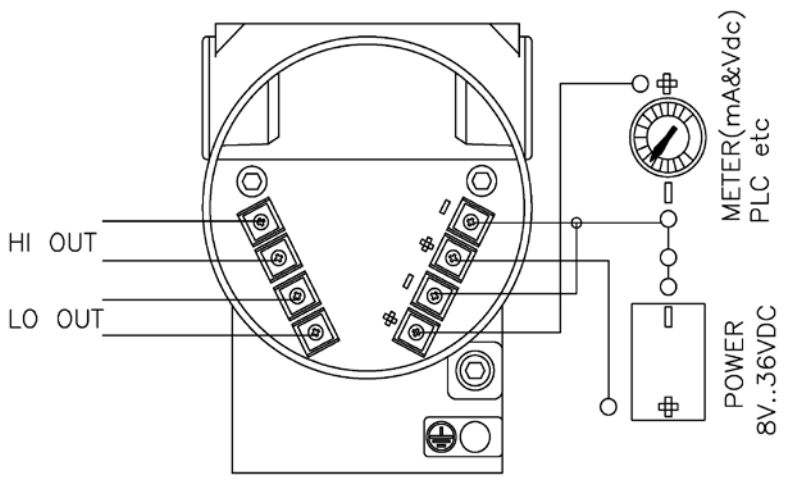
Front View



Side View



Electrical Connection(wiring)



ORDERING INFORMATION

Model

AW-P-30

Pressure Reference

- R : Gauge pressure
- A : Absolute pressure
- V : Vacuum
- C : Compound pressure

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 Analog output only
- 2 : 2 Relay points
- 3 : 4~20mA Analog output + 2 Relay points
- x : Other outputs available on request

Option

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

AW-P-30	R	B	3	117	A	1	X
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Note 1) Other ranges are available on request.

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

Specifications subject to change without notice.