

Dual Display, Programmable, Digital Pressure Switch & Transmitter

Model : AW-P-34



Designed for Semiconductor process control
 Adjustable 2 switch points
 LED 4-digit & bar-graph display
 Programmable pressure switch & transmitter
 Damping adjustable
 Zero & span adjustable
 10 : 1 range turn-down
 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
Semiconductor process control

GENERAL DESCRIPTION

AW-P-34 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-34 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. It is specially designed for semiconductor process application.

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

Model	AW-P-34V	AW-P-34H
Mounting Type	Vertical(Bottom, direct connection)	Horizontal(Panel, lower back connection)
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 × 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 Bar-graph(Yellow, Green, Red) Low alarm setting point : Yellow Normal operating point : Green High alarm setting point : Red
Electrical Connection	PG13.5(Black color) for Weather-proofed class Ex-Cable gland for Explosion-proofed class

Electrical Specifications

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

Peformance Specifications

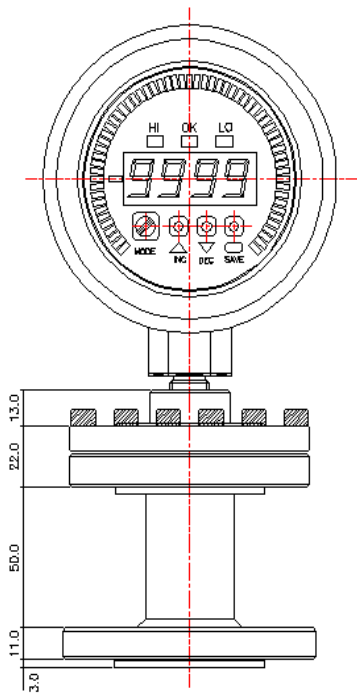
Accuracy	±0.25% FSO ±0.5% FSO for sealed diaphragm
Non-linearity	±0.100% FSO typical
Repeatability	±0.015% FSO typical
Pressure Hysteresis	±0.010% FSO typical
Long Term Stability	±0.3% FSO over 6 months
Operating Temperature	-40~125℃
Temperature Compensated	0~82℃
Thermal Sensitivity Shift	±0.2% FSO typical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

Physical Specifications

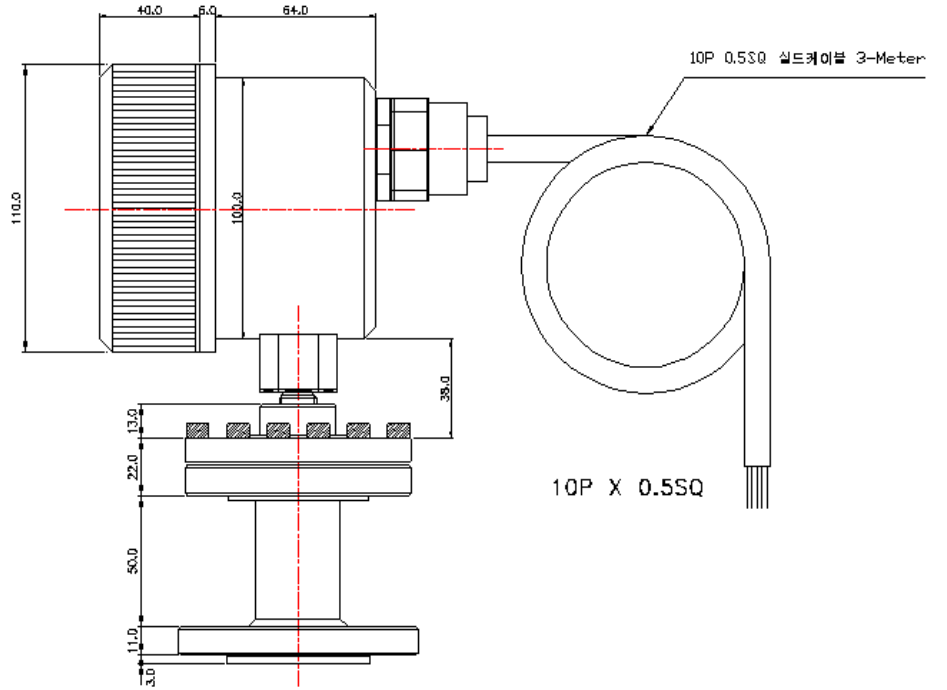
Process Connection	Thread Type : PT, NPT, PF Thread Size : 1/4", 3/8", 1/2", 3/4" Flange Type : JIS, ANSI, DIN(Flat or "I" flange)
Process Media	Gases & liquids compatible with stainless steel 316
Materials	Case : Aluminium Diaphragm : Stainless steel 316L Wetted parts : Stainless steel 316 Note) Wetted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

DIMENSION

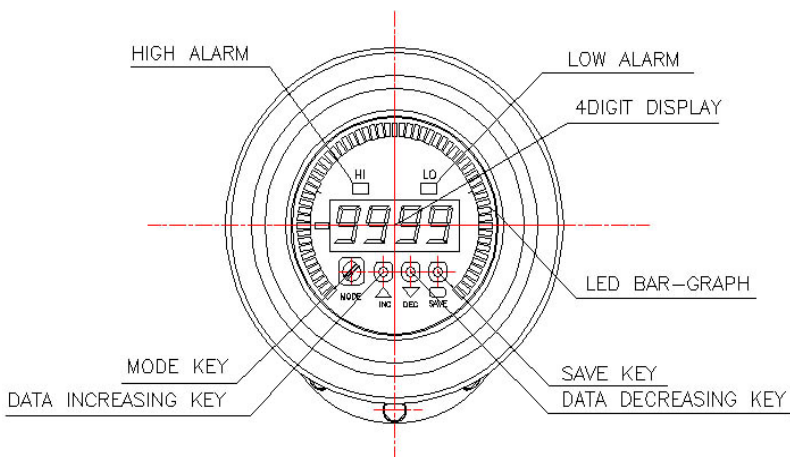
AW-P-34V(VERTICAL) Front View



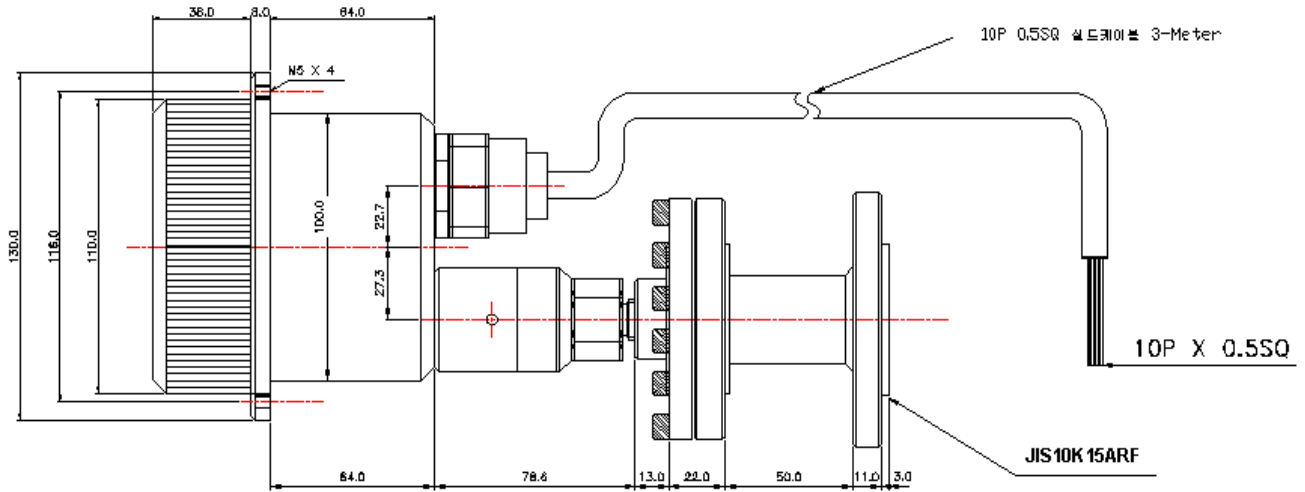
Side View



AW-P-34H(HORIZONTAL) Front View & Display details



Side View



Electrical Connection(Wiring)

Field case(terminal)

Flying lead, 1.5m

Wire color	Wiring
Red	: Excitation 24V +
Black	: Excitation 24V -
Green	: Output signal +
White	: Output signal -
Yellow	: Alarm contact, High
Blue	: Alarm contact, High
Gray	: Alarm contact, Low
Brown	: Alarm contact, Low

ORDERING INFORMATION

Base Model

AW-P-34V : Vertical(Bottom connection, direct) Mounting Type
 AW-P-34H : Horizontal(Lower back connection, flush) Mounting Type

Enclosure Rating

W : Weather Proof
 E : Explosion Proof

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

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

Option

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

AW-P-34V	W	R	B	3	117	A	1	X
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Specifications subject to change without notice.