KEYENCE

NEW Digital Pressure Sensor
AP-CW/VW Series

Built-in Amplifier type
AP-C30W Series

< Actual Size >

The World's Smallest Pressure Sensor

Separate Amplifier type
AP-C40W Series

Separate Thin Amplifier type
AP-V40W Series

c UL us CE

C type

General-purpose Pressure Sensor of Mono-block Construction in Ideal Size with Ease of Installation and Operability

World's Most Compact Model with Maximum Character Height

The world's most compact size with a width of 30 mm and height of 25 mm
and the largest character height (11 mm) in this class.
Furthermore, the AP-C30W Series incorporates a very easy-to-see 2-color LED display

Unit conversion function
The pressure can be displayed in any of four pressure units enabling it to be used worldwide.

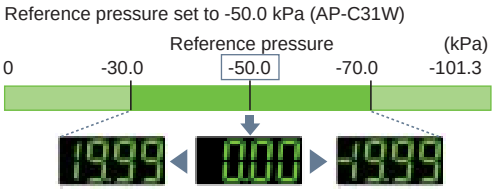
Subminiature Digital Pressure Sensor
AP-C30W Series

Highest Performance in this Class

Highest in Class **High Resolution: 10x Area Focus Function** (AP-C31W and AP-C33W)

Based on the set reference pressure, the detected pressure can be precisely displayed within a ±20% pressure range. The AC-C30W Series ensures a resolution of 0.01 kPa*, which is the highest in this class. Although the AP-C30W Series is of mono-block construction, highly precise pressure detection is possible. The zero-shift function can be used as well.

* When the AP-C31W is in focus mode.



A range between -30.01 kPa and -69.99 kPa is displayed as shown above. "FFF" or "-FFF" will be displayed in excess of the focus range.

Industry's First **All-in-one I/O Function**

Independent 2-point output, analog monitor output, and zero-shift input are incorporated as standard functions. There is no need to prepare a number of sensors and select the best one among them properly according to the application.

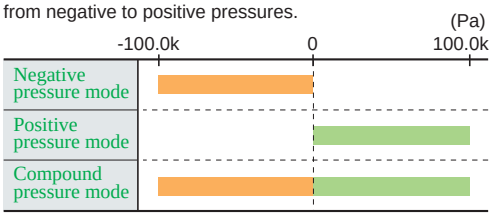
* Either analog output or zero-shift input is selectable.

Independent 2-point output | Analog monitor output | Zero-shift input

Industry's First **A Lineup of Multi-range Models Each Playing Three Roles** (AP-C30W)

A new lineup of multi-range models is available, each of which supports a number of applications. By making setting changes, each model can be used as a negative pressure model, positive pressure model, or compound pressure model. Therefore, there is no need to keep a variety of models in stock.

Each model supports all pressure applications, from negative to positive pressures.

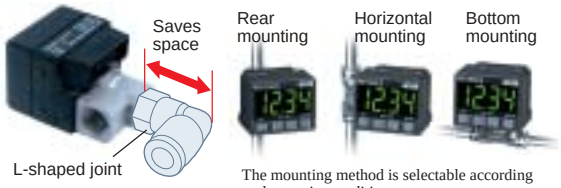


Flexible Mounting

World's First Rotary Pressure Port Adopted

The unit incorporates a pressure port that rotates 180˚, which directly connects to pipes in any direction. The pressure port is of non-slip structure. Therefore, the connection angle will not be shifted by vibration. Furthermore, in the case of horizontal mounting, the unit does not require any L-shaped joints, thus saving the space behind the rear panel. (Patent pending)

Rotates 180˚



The mounting method is selectable according to the on-site condition.

Connector-type Wiring Ensures Ease of Installation and Ease of Maintenance

The wiring cables are provided with connectors for easy connections. KEYENCE designed the cable in consideration of user-friendliness, thus ensuring ease of wiring changes after installation or replacement in case of need.

Power supply and I/O cables are provided with connectors that ensure ease of connection and disconnection.

A Variety of Attachments Allowing Versatile Mounting Methods

Four types of mounting brackets, including a nameplate attachment type and a slanting attachment type newly added, are available to as many as 13 mounting ways. These mounting brackets can be attached to any parts of all devices. Furthermore, the panel attachment can be mounted side-by-side vertically or horizontally.

A Number of Units Mounted Side-by-side with Mounting Space Saved (Close Mounting Possible)

A newly designed panel attachment allows side-by-side close mounting vertically or horizontally, thus saving space in the case of panel mounting as well.

Front protection cover

Preeminent Operability

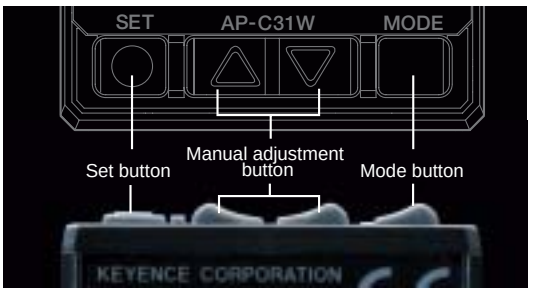
As Operable as Fiber Sensors

The Cube model is the same as fiber sensors in button arrangement. The auto tuning of the unit is possible by just pressing the set button. Furthermore, the unit allows direct set value adjustments, thus making it possible to operate the unit just like fiber sensors. The Cube model is a pressure sensor that is a step ahead of others.

DIRECT ACCESS
Direct access to set value

Button Layout Based on Human Engineering

The buttons are laid out with importance attached to operability. For example, the manual adjustment button, which is used highly frequently, is laid out in consideration of ease of pressing while the set button is laid out lower in level to prevent operational mistakes, such as the pressing of more than one button simultaneously.



V type

High-speed, High-precision, Separate Amplifier Type with No Conduit Layout Required

Sensor Head Separated from Amplifier

The subminiature sensor head can be mounted close to the detection point. As a result, loss of response time due to air tube length can be eliminated.

Subminiature sensor head
AP-41M (Negative pressure type)

Super-tough Cable

The cable bends flexibly, thus allowing easy handling much more efficiently than urethane tubes.

Compact snap-on connector adopted
Free-cut cable

Unit conversion function
The pressure can be displayed in any of four pressure units enabling it to be used worldwide.

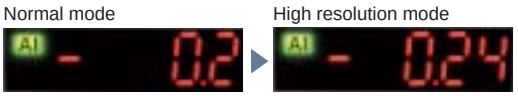
AI Digital Pressure Sensor Saves Wiring Effort
AP-V40W Series

All High Specifications

Highest in Class **High resolution: 10x**

A resolution of 0.01 kPa,the highest in this class (with the AP-41M or AP-41 used), is achieved, allowing marginal designing even though the difference in pressure is minimal.

* On the High-resolution mode



The unit displays the present value down to 1/100's digit, thus allowing fine settings.

Highest in Class **1-ms High-speed Response**

The AP-V40W Series ensures a response time as high as 1 ms, which is the highest in this class, thus perfectly responding to a tact-time reduction for high-speed needs. The AP-V40W has analog monitor output with no delay, because the processing time is only 1 ms.

Industry's First **All-in-one I/O Function** **(AP-V41W)**

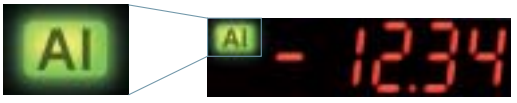
Independent 2-point output, analog monitor output, and zero-shift input are incorporated as standard functions. There is no need to prepare a number of sensors and select the best one among them properly according to the application.

* Either analog output or zero-shift input is selectable.

Independent 2-point output | Analog monitor output | Zero-shift input

World's First **New AI Tuning Function Incorporated** **(Patent Pending)**

The pressure change is sampled while the system is in operation, and the optimum zero-shift timing and threshold are automatically set. The adsorption check, which is the most difficult in level, is realized with ease.



New-style Amplifier

Operable Just Like Fiber Sensors

The auto tuning of the AP-VW Series is possible by just pressing the set button. Furthermore, the unit allows direct threshold value adjustments, thus making it possible to operate the AP-VW Series just like fiber sensors. The AP-VW Series is a pressure sensor that ensures extreme easy use.

Industry's First

Space-saving Design

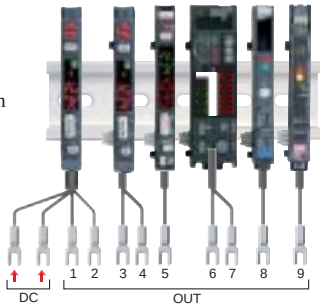
The style of the amplifier is designed in pursuit of space saving. The unit is as thin as 9 mm, which is the industry's thinnest model. A number of units can be coupled and installed side-by-side with the mounting space minimized.

Industry's First

The Industry's First Pressure Sensor Responding to Needs for Saving Wiring Effort

The one-line system is adopted, which eliminates two wires from each unit by supplying power through the connector on the side of the unit. As a matter of course, a number of units can be installed in combination with KEYENCE's Fiber Sensors and Laser Sensors.
(If only AP-VW units are used, a maximum of eight slaves can be coupled.)

Master: AP-V41W
Slave: AP-V42W



From left to right
AP-V41W
Pressure Sensor
AP-V42W
Pressure Sensor
FS-V22
Fiber Sensor
LV-22A
Laser Sensor
PS-T2
Photoelectric Amplifier of separate amplifier type
ES-M2
Proximity Sensor of separate amplifier type

A Lineup of Pressure Sensors of High-precision Separate Amplifier Type includes Cube Models

C type

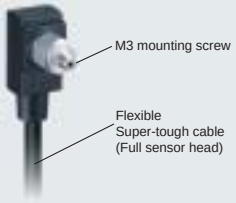
- Industry's most compact model of separate amplifier type
- Easy-to-see, large, two-color LED display
- High-resolution (10x), area focus function
- Fast response time of 1 ms
- Supports zero-shift input
- Incorporates a zero-shift timer
- Incorporates an analog output function as a standard feature
- Incorporates an active two-point tuning function

Digital Pressure Sensor of Subminiature Amplifier Separate Type
AP-C40W Series

Versatile Head Variations Supporting All Applications

Subminiature Sensor Head

AP-41M (Negative Pressure Type)



Half as Large as Conventional Model and Ultra-light Weight of 4.8 g

The head is 17.3 (L) x 10.3 (W) x 6.8 (H) mm in size, the volume of which is half as large as conventional ones. Furthermore, the head weighs only 4.8 g and is ideal for compact, high-speed adsorption devices.

Compact Sensor Head

AP-41 (Negative pressure model)
AP-43 (Positive pressure model)
AP-44 (Compound pressure model)

General-purpose Sensor Supporting All Applications

Negative pressure, positive pressure, and compound pressure models are prepared. The AP-41, AP-43, and AP-44 are compact sensor heads available to all applications, such as adsorption checks, initial pressure control, and leak tests.

Micro-pressure Difference Sensor Head

AP-47

Highly Precisely Detects Delicate Difference in Pressure

The AP-47 detects the difference in pressure between high and low ports at a repetitive precision of ±0.3% of F.S. with a resolution of 0.001 kPa(high-resolution mode) which is the highest precision of this class.

Pressure Difference Sensor Head

AP-48

Detects the Difference between Two Ports

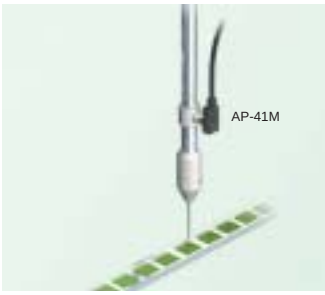
The AP-48 detects the difference in pressure between high and low ports. The difference in normal air pressure is detectable at a wide range of 100 kPa. It is ideal for a variety of comparison leak tests.

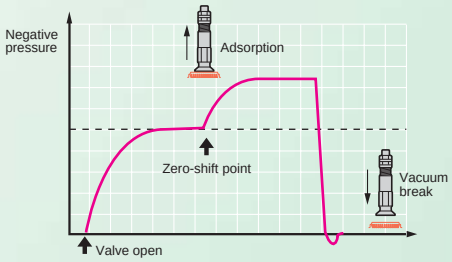
Versatile Functions Available to All Applications

Adsorption Check

[F-1 mode] [A-1 mode] Recommended model (Mono-block type) AP-C30W/C31W
(Separate type) AP-41 (M)/44

[Point 1] Zero-shift Function Detects Displacement Only during Adsorption.





The zero-shift function forcibly sets the pressure value before adsorption to zero compulsorily so that only the change of adsorption will be detected. This function cancels the influence of the fluctuation of initial pressure and the change of temperature, thus making it possible to detect the displacement only. A single negative pressure model as well as a single compound pressure model makes it possible to detect both adsorption and vacuum break.

[Point 2] Dedicated Adsorption Check Mode to Ensure Stable Detection

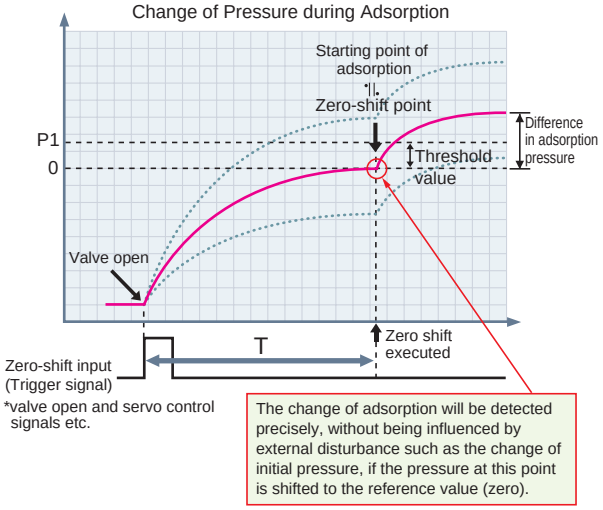
AP-CW/VW models incorporate the A-1 mode (a dedicated adsorption check mode). In order to make stable adsorption checks, it is necessary to make a zero shift at a point as close as possible to the starting port of adsorption. AP-CW/VW models incorporate a zero-shift timer which can set in 1-ms increments the time between the input of the zero-shift signal and the moment a zero shift is executed. A zero shift is possible in a timely manner without being influenced by the scan time of any external device, such as the PLC.

AI Tuning Sets All Values Automatically

AI tuning samples the difference in pressure of equipment in continuous operation, and calculates the optimum zero-shift timer value (T) and the threshold value (P1), thus making ideal settings automatically. (AP-VW model only)

Active Two-point Tuning Sets Optimum Threshold

The optimum threshold (P1) is automatically set by sampling the difference in pressure of equipment in continuous operation after deciding the zero-shit timer value (T). (AP-CW/VW)

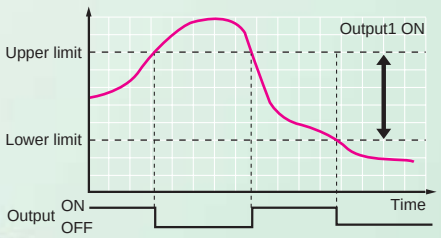


The change of adsorption will be detected precisely, without being influenced by external disturbance such as the change of initial pressure, if the pressure at this point is shifted to the reference value (zero).

Initial Pressure Control

[F-3 mode] Recommended model (Mono-block type) AP-C33W
(Separate type) AP-43

[Point 1] Error Output with Error Pressure Range Decided

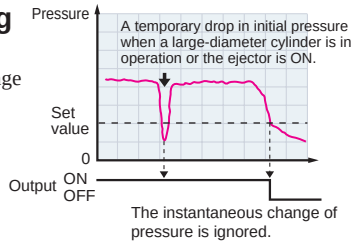


Window Mode Incorporated

Initial pressure monitoring is possible by just setting the upper and lower limits of the error signal range. Moreover, the output will be turned OFF in the event of wire disconnection for safety as if an error in pressure is detected. Use the F-1/F-2 mode to set upper and lower limit output values separately.

[Point 2] Prevents Chattering

The chattering prevention function is incorporated so that the instantaneous change of pressure will be ignored.



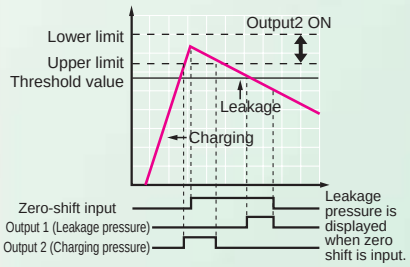
[Point 3] Easy-to-see 2-color LED Display

Using two colors (green while in normal operation and red in excess of the upper or lower limit) allows finding an error instantly.

Leakage Test

[A-2 mode] Recommended model (Mono-block type) AP-C30W/C33W
(Separate type) AP-43/44

[Point 1] Detects Charging Pressure and Leakage Pressure Together



Output 1 detected leakage pressure and output 2 detects charging pressure.

1. When the fluid is filled up to a certain pressure, check the output2 signal and close the valve. Turns on zero-shift function.
2. Only the difference in displacement pressure due to leakage will be displayed while the zero shift is ON.
3. Check the pressure change due to the leakage with output 1.
4. The normal pressure will be displayed when the zero-shift function is turned OFF. Then the charging pressure can be checked.

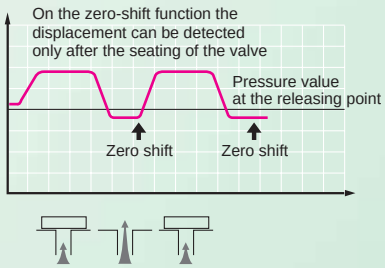
(Output 2 always detects the difference from atmospheric pressure.)

*Output 1 will be displayed while zero-shift input is ON when in A-2 mode.

Seating Check

[F-1 mode] Recommended model (Mono-block type) AP-C30W/C33W
(Separate type) AP-43/44

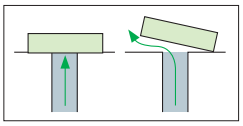
[Point 1] Zero-shift Function Cancels Initial Pressure Changes



By performing a zero shift at the time of starting the system, a seating check will be made according to the initial pressure of the day. By performing a zero shift whenever the valve is seated, a lighter pressure change can be detected.

[Point 2] Resolution: 10x

If the high-resolution mode (on the AP-V40W series) or the area focus mode (excluding the AC-C30W) is used, not only the existence of the workpiece but also the delicate difference in pressure caused by the leaning of the workpiece will be detected precisely.



Differential Pressure Check

[F-1 mode] Recommended model (Separate type) AP-47/48

[Point 1] Micro-pressure Difference Sensor Head Displays Difference in Pressure in 0.001-kPa Increments

Filter clogging control

Detects tank liquid level

The dedicated AP-47 Head exactly detects a slight difference in pressure and displays at a resolution of 0.001 kPa, which is the highest in this class. The AP-48, which detects the difference in pressure of normal air, is lined up as well.

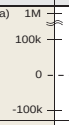
AP-47 Micro-pressure Difference Sensor Head
Detection range: 0 to 2 kPa
Display resolution: 0.001 kPa

AP-48 Normal-pressure Difference Sensor Head
Detection range: -101.3 to +101.3 kPa
Display resolution: 0.02 kPa

[Point 2] Detects Fluctuation of Normal Pressure

If the equipment is operated to some extent before the filter clogging set value is decided, the fluctuation of normal pressure can be checked with the peak and bottom display. Use this function to determine the set value.

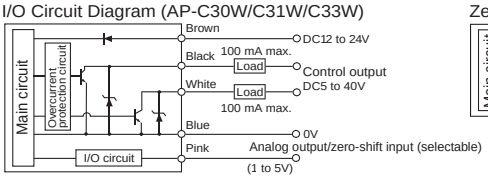
Specifications

Type		Multi range			Negative pressure	Positive pressure
Model	NPN	AP-C30W			AP-C31W	AP-C33W
	PNP	AP-C30WP			AP-C31WP	AP-C33WP
						
Rated pressure range		Negative pressure mode	Positive pressure mode	Compound pressure mode	0 to -101.3kPa	0 to +1.000MPa
		0 to -101.3kPa	0 to +100.0kPa	+101.3 to -101.3kPa		
Proof pressure		500kPa			500kPa	1.5MPa
Fluid type		Air or non-corrosive gases				
Pressure type		Gauge pressure				
Electrical rating	Power supply voltage	12 to 24 VDC ±10% with ripple (p-p) of 10% max.				
	Power consumption		12 V	24 V		
		Normal	720 mW (60 mA) max.	960 mW (40 mA) max.		
		Economical mode	480 mW (40 mA) max.	720 mW (30 mA) max.		
Display		3 1/2-digit, 2-color, 7-segment LED (Character height: 11 mm) Display cycle: 10 times/s				
Set and display range*1		-10 to +110% of F.S.			-15 to +110% of F.S.	
Operation indicator		Red LED x 2 (corresponding to control output 1 and 2)				
Resolution	Multi range	Negative pressure	Positive pressure	Compound pressure		
		0.1kPa	0.1kPa	0.2kPa		
	Normal mode				0.1kPa	0.001MPa
	Focus mode				0.01kPa	0.1kPa
Repetitive precision		±0.2% of F.S.				
Hysteresis*2		Variable (Standard: 0.5% of F.S.)				
Display temperature characteristic		±1% of F.S. max.				
Response time (chattering prevention function)		2.5, 5, 100, or 500 ms (selectable)				
Zero-shift input		Non-voltage input (contact or SSR) with input time of 2 ms or more. (or analog output selectable)				
Control output		NPN open collector 100 mA max. (at 40 V or below) with max. residual voltage of 1 V, 2 outputs (NO or NC selectable)				
Analog output		1 to 5 V with load impedance of 1 kΩ max. (or zero-shift input selectable)				
Environment resistance	Ambient operating temperature	0˚C to 50˚C (with no icing)				
	Ambient operating humidity	35% to 85% (with no condensation)				
	Vibration resistance	10 to 55Hz, 1.5mm double amplitude in X, Y, and Z directions, 2 hours respectively				
Pressure port		Rc (PT) 1/8 180˚ rotation				
Material		Front housing: Polysulfone, Rear housing: PBT, Front seat: Polycarbonate, Pressure port: Zinc die-casting				
Weight		Approx. 30 g (without cable) Approx. 85 g (with 2-meter-long cable)				
Accessory		Power supply cord (2-meter long with connector), Unit seal*3				

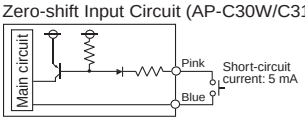
*1 The focus range applies while in focus mode only. *2 A standard of 0.2% of FS applies while in focus mode. *3 The seal is provided to the AP-C33W only.

Connection Diagrams

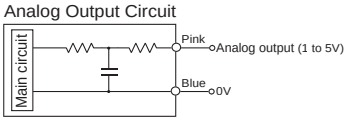
I/O Circuit Diagram (AP-C30W/C31W/C33W)



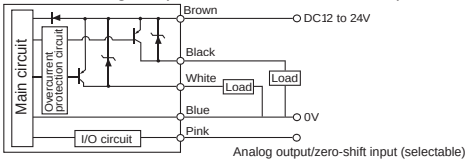
Zero-shift Input Circuit (AP-C30W/C31W/C33W)



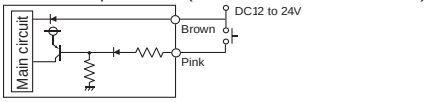
Analog Output Circuit



I/O Circuit Diagram (AP-C30WP/C31WP/C33WP)



Zero-shift Input Circuit (AP-C30WP/C31WP/C33WP)

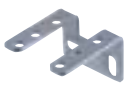


Option

AP-C30W and AP-C40W Use

Horizontal Mounting Bracket
AP-B01

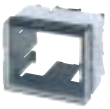
Wall Mounting Bracket
AP-B02

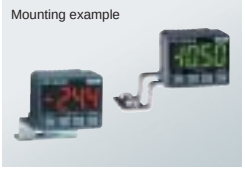


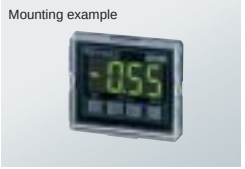
Nameplate Ceiling Mounting Bracket AP-B03

Aslant Mounting Bracket
AP-B04

Panel Mounting Bracket
AP-A01





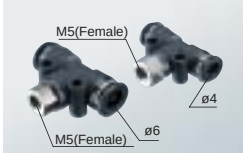


AP-C30W Use

Bourdon Replacement Joint
OP-35423

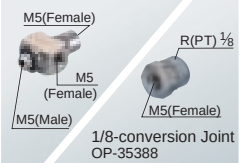
AP-V40/C40W Use

T-type Snap-on Joint
ø4 Use OP-33156
ø6 Use OP-33157



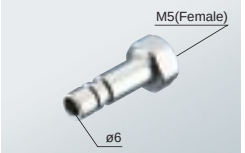
T-type Snap-on Joint
M3 Use OP-42220

Screw Conduit Joint
OP-33155

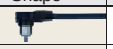


1/8-conversion Joint
OP-35388

Reducer Conversion Joint
OP-33158



Sensor Head Variations

Shape	Rated pressure range*	Pressure type	Major application	-100k 0 100k 1M <Pa>	Model
	0 to -101.3kPa	Negative pressure	Adsorption check		AP-41M
	0 to -101.3kPa	Negative pressure	Adsorption check		AP-41
	0 to 1MPa	Positive pressure	Initial pressure control and leakage test		AP-43
	+101.3kPa to -101.3kPa	Compound pressure	Adsorption check and vacuum break check		AP-44
	0 to 2.0kPa	Micro-pressure difference	Filter clogging and liquid surface detection	2k 10k	AP-47
	-101.3kPa to +101.3kPa	Pressure difference	Comparison leakage test		AP-48

*The set pressure range is between -15% and 110% of the rated pressure range.

Specifications

Sensor Head

Model		AP-41M	AP-41	AP-43	AP-44	AP-47	AP-48
Rated pressure range		0 to -101.3kPa		0 to +1.000MPa	+101.3 to -101.3kPa	0 to +2.00kPa	-101.3 to +101.3kPa
Proof pressure		500kPa		1.5MPa	500kPa	50kPa	500kPa
Fluid type		Air or non-corrosive gases					
Pressure type		Gauge pressure					
Temperature characteristic		±2% of F.S. max.				±3% of F.S. max.	±2% of F.S. max.
Pressure port		M5 (M3) male screw				4.4 dia resin type	R1/8
Environment resistance	Operating ambient temperature	0˚C to 50˚C (with no icing)					
	Operating ambient humidity	35% to 85% (with no condensation)					
	Vibration resistance	10 to 55Hz, 1.5mm double amplitude in X, Y, and Z directions, 4 hours respectively					
	Shock resistance	1,000 m/s² in X, Y, and Z directions 10 times respectively (60 times in total)					
Material		Housing:PBT, Screw:Stainless steel				Housing:Glass-reinforced resin	Housing:PBT,Screw:Stainless steel
Weight		7g (without cable) 70g (with 3-meter-long cable) (41M: 4.8g / 67.8g)				13g(without cable) 76g(with 3-meter-long cable)	35g(without cable) 98g(with 3-meter-long cable)

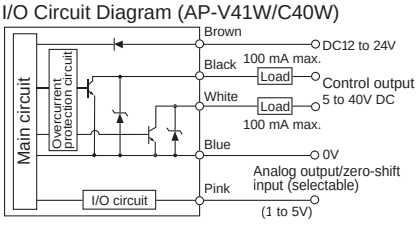
Amplifier Unit

Model						
	NPN	AP-V41W/V42W/C40W				
	PNP	AP-V41WP/V42WP/C40WP				
Applicable sensor head		AP-41M/41	AP-43	AP-44	AP-47	AP-48
Electrical rating	Power supply voltage	12 to 24 VDC ±10% with ripple (p-p) of 10% max.				
	Power consumption	AP-V41W/V42W: Normal 12 V: 720mW (60mA) max. / 24 V: 960mW (40mA) max.; Economical mode 12 V: 480mW (40mA) max. / 24 V: 720mW (30mA) max.			AP-C40W: Normal 12 V: 780mW (65mA) max. / 24 V: 1080mW (45mA) max.; Economical mode 12 V: 540mW (45mA) max. / 24 V: 840mW (35mA) max.	
Display	AP-V41W/V42W	4 1/2-digit, 2-color, 7-segment LED (Character height: 4.5 mm) AI indicator (green) Display cycle: 10 times/s				
	AP-C40W	3 1/2-digit, 2-color, 7-segment LED (Character height: 11 mm) Display cycle: 10 times/s				
Set and display range		-15% to 110% of F.S.*2				
Operation indicator		Red LED x 2 (corresponding to control output 1 and 2)				
Resolution	Standard mode	0.1kPa	0.001MPa	0.1kPa	0.01kPa	0.1kPa
	High-resolution/Focus mode	0.01kPa	0.1kPa	0.02kPa	0.001kPa	0.02kPa
Repetitive precision		±0.2% of F.S.			±0.3% of F.S.	±0.3% of F.S.
Hysteresis		Variable (Standard: 0.5% of FS; high-resolution/focus mode: 0.1% of F.S.)				
Display temperature characteristics		±1% of F.S. max.				
Response time (chattering prevention function)		1 (in high-speed mode only), 2.5, 5, 100, or 500 ms (selectable)*3				
Zero-shift input		Non-voltage input (contact or SSR) with input time of 2 ms or more. (or analog output selectable)				
Control output		NPN open collector 100 mA max. (at 40 V or below)*4 with max. residual voltage of 1 V, 2 outputs (NO or NC selectable)				
Analog output*1		1 to 5 V with load impedance of 1 kW max. (or zero-shift input selectable)				
Environment resistance	Ambient operating temperature	0˚C to 50˚C (with no icing)				
	Ambient operating humidity	35% to 85% (with no condensation)				
	Vibration resistance	10 to 55Hz, 1.5mm double amplitude in X, Y, and Z directions, 2 hours respectively				
Material	AP-V41W/V42W	Polycarbonate				
	AP-C40W	Front housing: Polysulfone, Rear housing: PBT, Front seat: Polycarbonate				
Weight		AP-V41W and AP-V42W: Approx. 80 g (with 2-meter-long cable) AP-C40W: Approx. 74g (with 2-meter-long cable)				
Accessory	AP-V41W/V42W	Mounting Bracket (AP-V41W), End Unit (AP-V42W), Head Connector, and Expansion Seal (AP-V42W)				
	AP-C40W	Power supply code (2-meter-long cable with connector), head connector, and unit seal				

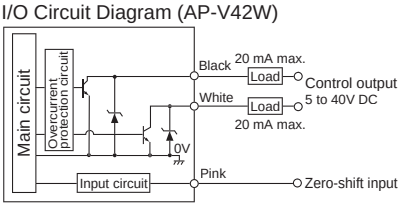
*1 Only the AP-V41W (Master) and AP-V40W apply. *2 The focus range applies while in focus mode only.
*3 A response time of 100 or 500 ms applies if the AP-47 is used. *4 The maximum current is 20 mA if the AP-V42W as an expansion unit is installed.

Connection Diagrams

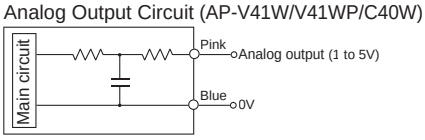
I/O Circuit Diagram (AP-V41W/C40W)



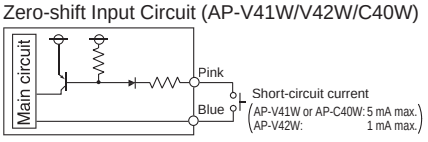
I/O Circuit Diagram (AP-V42W)



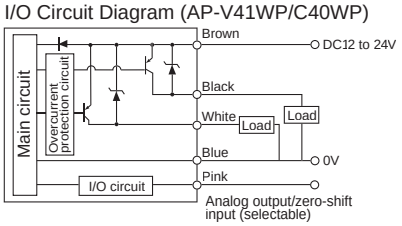
Analog Output Circuit (AP-V41W/V41WP/C40W)



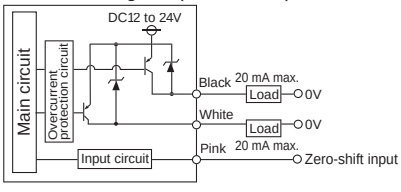
Zero-shift Input Circuit (AP-V41W/V42W/C40W)



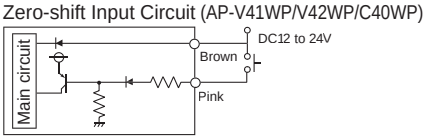
I/O Circuit Diagram (AP-V41WP/C40WP)



I/O Circuit Diagram (AP-V42WP)



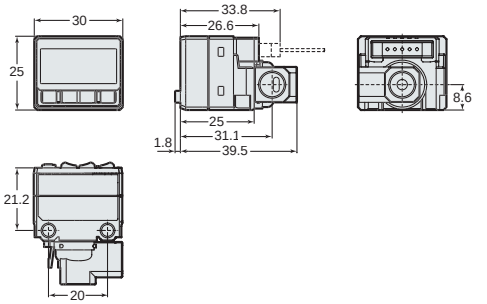
Zero-shift Input Circuit (AP-V41WP/V42WP/C40WP)



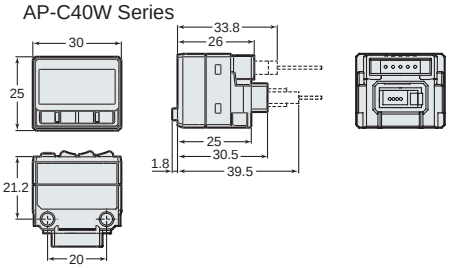
External Dimensions

Amplifier Unit

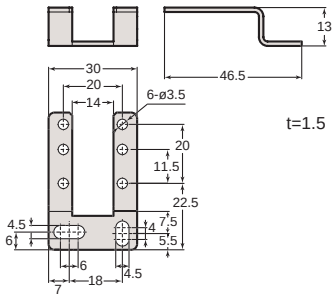
AP-C30W Series



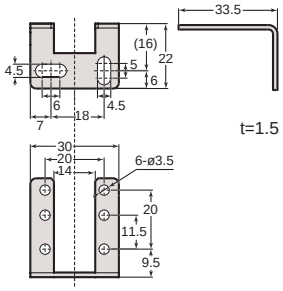
AP-C40W Series



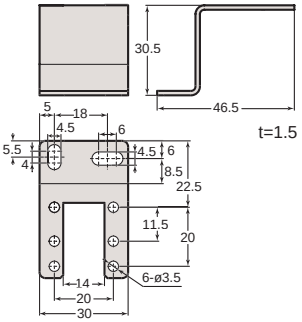
AP-B01 Mounting Bracket (Optional)



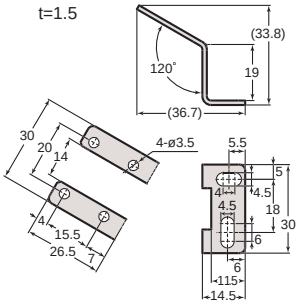
AP-B02 Mounting Bracket (Optional)



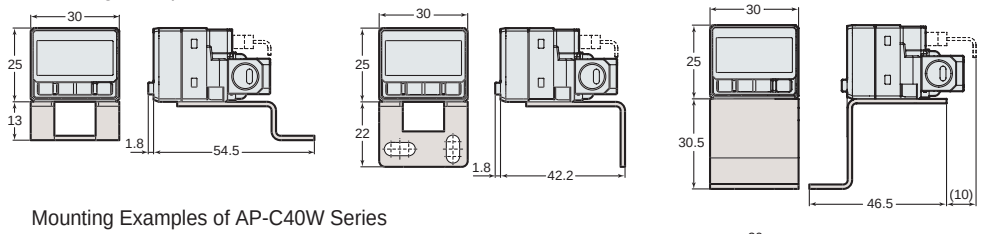
AP-B03 Mounting Bracket (Optional)



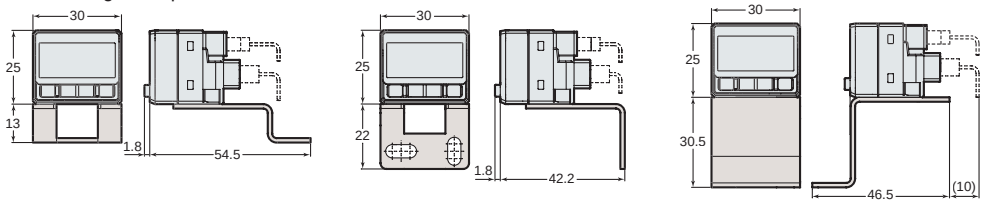
AP-B04 Mounting Bracket (Optional)



Mounting Examples of AP-C30W Series

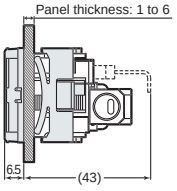


Mounting Examples of AP-C40W Series

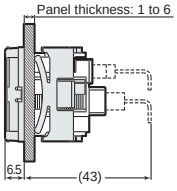


AP-A01 Panel Mounting Bracket (Optional)

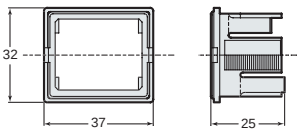
Mounting Examples of AP-C30W Series



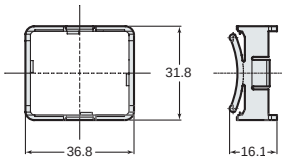
Mounting Examples of AP-C40W Series



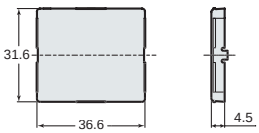
Panel Mounting Bracket



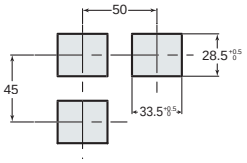
Panel Mounting Ring



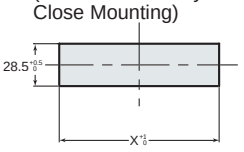
Front Protection Cover



Panel Cutout Dimensions

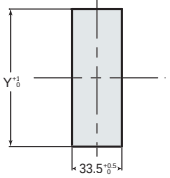


(Horizontal Side-by-side Close Mounting)



Number of units mounted: A
X=33.5+(A-1)x37

(Vertical Side-by-side Close Mounting)

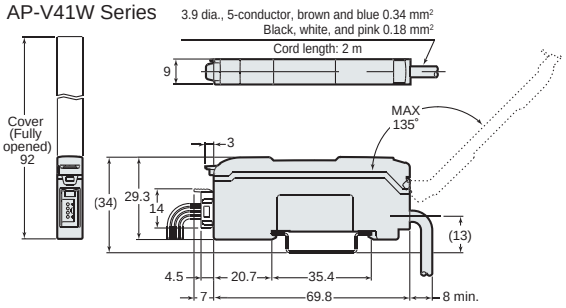


Number of units mounted: A
Y=28.5+(A-1)x32

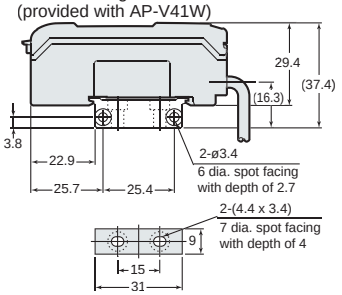
External Dimensions

Amplifier Unit

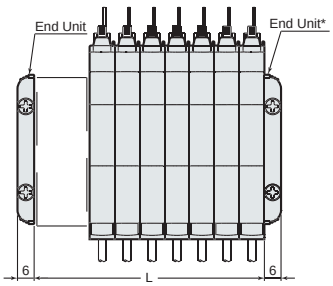
AP-V41W Series



With Mounting Bracket (provided with AP-V41W)



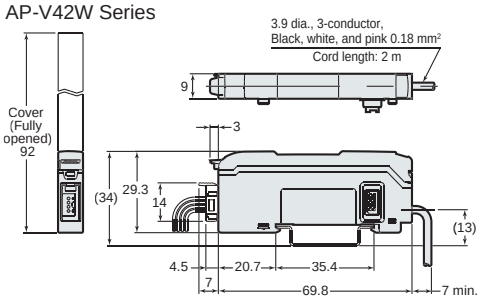
Expansion



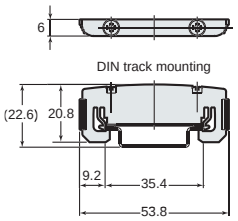
*Always use the End Unit for salve expansion.

Number of expansion slaves	L(mm)
1	18
2	27
3	36
4	45
5	54
6	63
7	72
8	81

AP-V42W Series

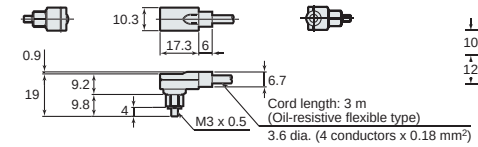


End Unit (provided with AP-V42W)

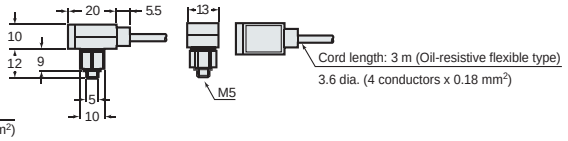


Sensor Head

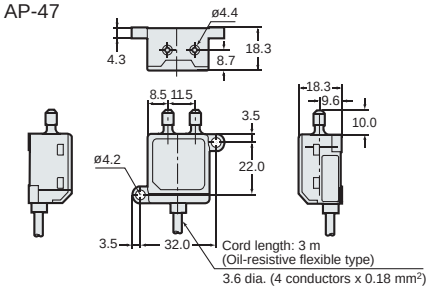
AP-41M



AP-41/43/44



AP-47



AP-48