

KFP01 SERİSİ / KFP01 SERIES

Dijital Akış ve Basınç Sensörü / Digital Flow and Pressure Sensor



KFP01 SERİSİ / KFP01 SERIES
Specifications

Model		005	010	050	100	500	101	201	
Fluid		Dry air, N ₂ , Non-corrosive / Non-flammable gas							
Sensor Element	Flow	0 ~ 500 mL/min	0 ~ 1000 mL/min	0 ~ 5 L/min	0 ~ 10 L/min	0 ~ 50 L/min	0 ~ 100 L/min	0 ~ 200 L/min	
	Pressure	Unidirection							
Rated Pressure Range		-90 ~ 800 kPa							
Display		4 digital * 4 digital, 7 segment LCD display (Red / Green / Orange)							
Instant Flow Rate	Display Range	0 ~ 500 mL/min	0 ~ 1000 mL/min	0 ~ 5.00 L/min	0 ~ 10.00 L/min	0 ~ 50.0 L/min	0 ~ 100.0 L/min	0 ~ 200 L/min	
	Minimum Setting Scale *1	1 mL/min 0.01 ft ³ /min	1 mL/min 0.01 ft ³ /min	0.01 L/min 0.1 ft ³ /min	0.01 L/min 0.1 ft ³ /min	0.1 L/min 1 ft ³ /min	0.1 L/min 1 ft ³ /min	1 L/min 1 ft ³ /min	
Accumulated Flow	Display Range	99999999 mL	99999999 mL	999999.99 L	999999.99 L	9999999.9 L	9999999.9 L	99999999 L	
	Minimum Setting Scale *1	1 mL 0.01 ft ³	1 mL 0.01 ft ³	0.01 L 0.1 ft ³	0.01 L 0.1 ft ³	0.1 L 1 ft ³	0.1 L 1 ft ³	1 L 1 ft ³	
Pressure Display	Display Range	-100 ~ 1000 kPa							
		1							
		0.01							
		0.01							
Accuracy	Flow	Guaranteed Range							
		Indicator Accuracy							
		Analog Output Accuracy							
		Repeatability							
Pressure	Pressure	Guaranteed Range							
		Indicator Accuracy							
		Analog Output Accuracy							
		Repeatability							
Temp. Characteristic		± 2 % F.S. (15 ~ 35 °C) ; ± 5 % F.S. (0 ~ 15 °C, 35 ~ 50 °C) (compare with *3)							
Temp. Characteristic		± 5 % F.S. ± 1 digit *4							
Temp. Characteristic		± 2 % F.S. (compare with *5)							
Switch Output	Response Time	Flow		2 NPN : open collector 2 outputs Max. Load Current : 125 mA Max. Supply Voltage : 28 V DC Voltage Drop : ≤ 1.5 V			2 PNP : open collector 2 outputs Max. Load Current : 125 mA Max. Supply Voltage : 24 V DC Voltage Drop : ≤ 1.5 V		
		Pressure		800 ms (50 ms, 80 ms, 120 ms, 200 ms, 400 ms, 1500 ms selectable)					
	Output Mode	Flow		2.5 ms (25 ms, 100 ms, 250 ms, 500 ms, 1000 ms, 1500 ms selectable)					
		Pressure		Hysteresis Mode, Window Comparator Mode, Accumulated Output, Accumulated Pulse Output					
	Hysteresis		One Point Set Mode, Hysteresis Mode, Window Comparator Mode						
	Output Short Circuit Protection		Adjustable						
Accumulated Pulse Output *1		Yes							
Analog Output	Voltage Output		5 mL/Pulse 10 mL/Pulse 0.05 L/Pulse 0.1 L/Pulse 0.5 L/Pulse 1 L/Pulse 2 L/Pulse						
	Current Output		0.02 ft ³ /Pulse 0.04 ft ³ /Pulse 0.2 ft ³ /Pulse 0.4 ft ³ /Pulse 2 ft ³ /Pulse 4 ft ³ /Pulse 7 ft ³ /Pulse						
	Response Time		Voltage Output Range : 1 ~ 5 V *6 Output Impedance : 1 KΩ						
External Input		Current Output Range : 4 ~ 20 mA *6 Load Impedance : ≤ 300 Ω							
Communication Interface		Pressure : ≤ 50 ms ; Flow : ≤ 100 ms							
Power		Non-voltage input, < 0.4 V, ≥ 30 ms							
Withstand Pressure		RS-485 *7							
Enclosure		12 ~ 24 V DC ± 10 %, Ripple (P-P) ≤ 10 %							
Working Fluid Temp.		≤ 50 mA							
Ambient Temp. Range		1000 kPa							
Ambient Humidity Range		IP40							
Insulation Resistance		0 ~ 50 °C (No condensation or freezing)							
Withstand Voltage		Operation : 0 ~ 50 °C ; Storage : -10 ~ 60 °C (No condensation or freezing)							
Vibration		Operation / Storage : 35 ~ 85 % R.H. (No condensation)							
Shock		≥ 50 MΩ (500 V DC, between case and lead wire)							
EMC		1000 V AC in 1-min (between case and lead wire)							
Lead Wire		Total amplitude 1.5 mm or 10 G, 10 Hz ~ 55 Hz ~ 10 Hz scan for 1 minute, 2 hours each direction of X, Y and Z							
Port Size		100 m/s ² (10 G), 3 times each in direction of X, Y and Z							
Weight (with 2 Meter Lead Wire)		IEC 61000-6-2, IEC 61000-6-4							
Ø6 mm Quick-Fitting		Ø4 Oil-resistance cable (PVC) - 26 AWG (0.15 mm ²) - 6 cores							
Ø8 mm Quick-Fitting		•	•	•	•	•	•	•	
Weight (with 2 Meter Lead Wire)		Approx. 107 g (Ø6 port) ; Approx. 110.5 g (Ø8 port)							

NOTE :

 *1 : CFM (ft³/min*10⁻²) and ft³*10⁻²

*2 : CONDITION : Inlet Pressure : 300 kPa , Outlet Pressure : 1 atmospheric pressure, 25 °C

*3 : CONDITION : Outlet Pressure : 1 atmospheric pressure, 25 °C

*4 : -90 ~ 800 kPa, Outlet Pressure : 1 atmospheric pressure, 25 °C

*5 : Outlet flow rate = 0 L/min, 25 °C

*6 : PWM output, corresponding to pressure sensor 0 ~ 1000 kPa

*7 : This function only available for Output Specification -02 and -04.

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Features

- Flow and pressure dual sensor.
- 3-color LED display.
- Flow and pressure 4 digit, 7 segment dual LCD display.
- 7 segment 8 digit LCD display.
- Accumulated flow rate display at a glance.
- Real-time monitoring.
- RS-485 Modbus RTU.

Ordering Information

K F P 0 1 - 0 0 5 - 0 1 0 - R 6

Flow Rate Range

- 005 : 500 mL/min
- 010 : 1000 mL/min
- 050 : 5 L/min
- 100 : 10 L/min
- 500 : 50 L/min
- 101 : 100 L/min
- 201 : 200 L/min

Output Specifications

- 010 : 2 NPN output + Analog output 1 ~ 5 V
- 011 : 2 NPN output + Analog output 4 ~ 20 mA
- 02 : 2 NPN output + RS485
- 030 : 2 PNP output + Analog output 1 ~ 5 V
- 031 : 2 PNP output + Analog output 4 ~ 20 mA
- 04 : 2 PNP output + RS485

Port Size

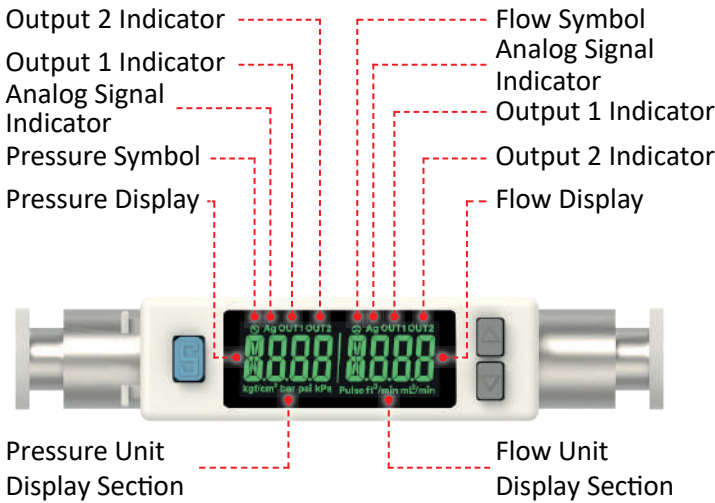
- R6 : ø6 mm, for Flow Rate Range 005, 010, 050, 100, 500.
- R8 : ø8 mm, for Flow Rate Range 101, 201.

Optional Parts

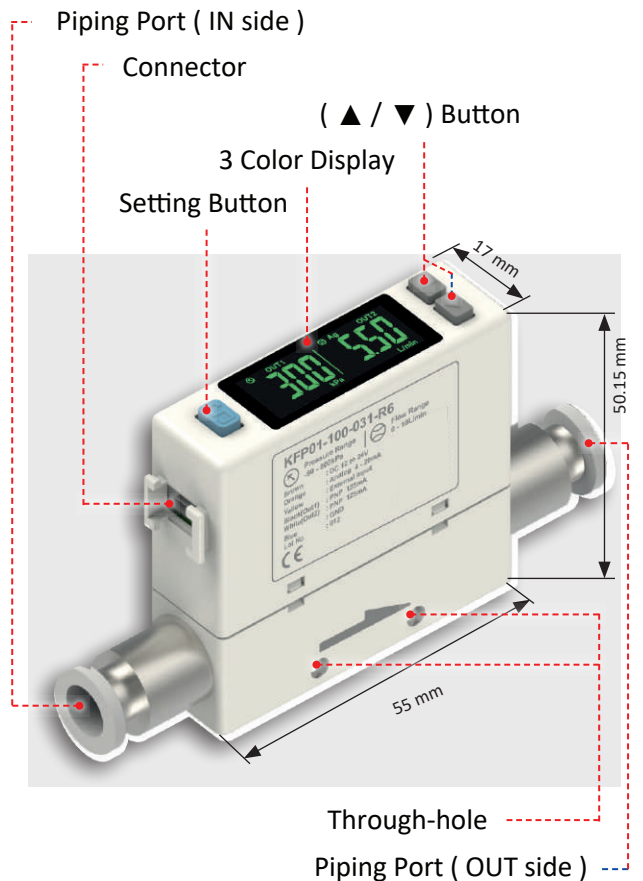
- BT-26 : Mounting bracket

Summary Of Each Part Name

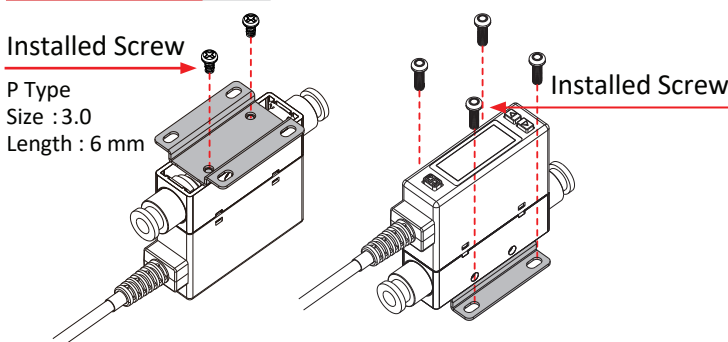
LCD Display



Body

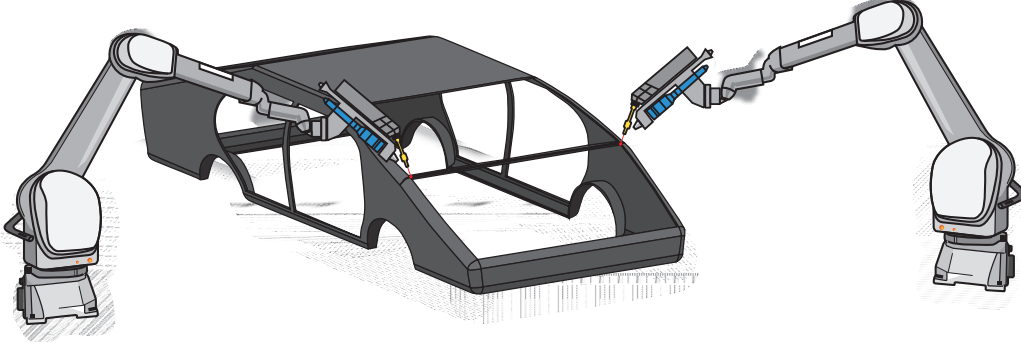


Bracket (BT-26)

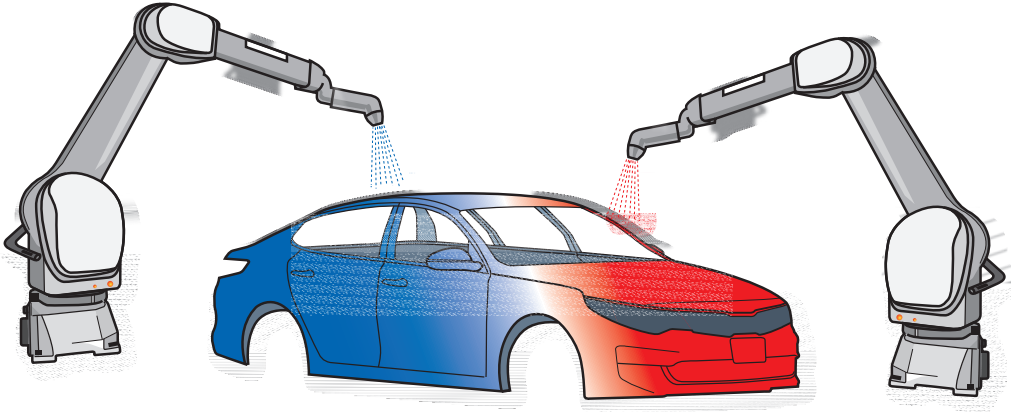


KFP01 SERİSİ / KFP01 SERIES**Applications**

- Quality Control

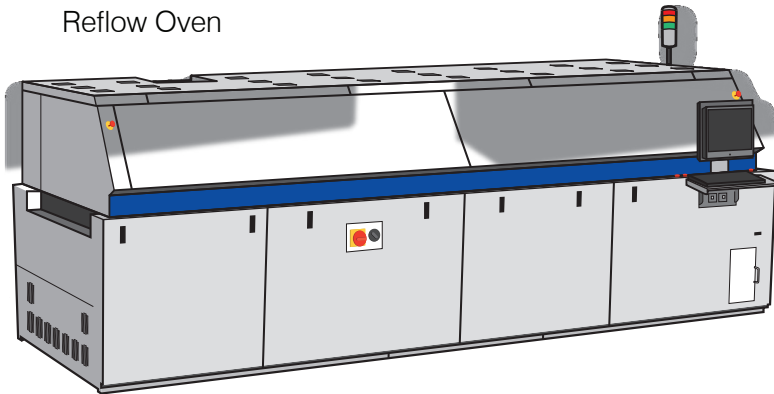
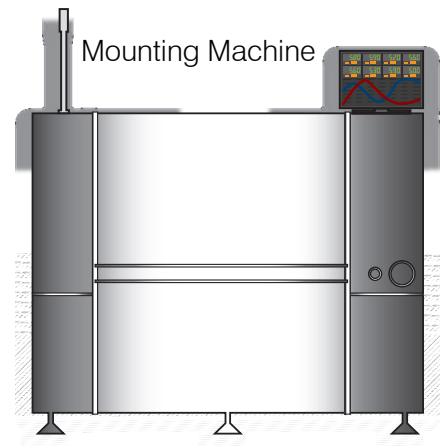
**Laser Welding Robot**

Management of shielding gas, flow rate and pressure.

**Painting Robot**

Paint air flow management of flow rate and pressure.

- Cost Management
- Energy-Saving and Environmental Protection

**Reflow Oven****Mounting Machine****Reflow Oven / Mounting Machine**

N₂ & Air consumption of the whole equipment management.