

# High Accurate (Mid-High) Pressure Transmitter

# VPRT(F) series

- High accuracy (Non Linearity:  $\pm 0.2\%$  R.C.)
- Sensor machined integral with diaphragm offers durability and long life.
- Abundant analog output available. [4~20mA (2 wire system, 4 wire system), 1~5V, 0~5V, 0~10V]

Measured Media	Water, oil, gases or other media that will not corrode SUS630 or 15-5PH (precipitation-hardened stainless steel).
Pressure Type	Positive and compound pressures can be measured.
Measured Range	Can be specified within the range of 1 kPa to 100 MPa of rated capacity (Calibration range: 0.5 MPa to 100 MPa). Specify more than 50% of rated capacity as the calibration range.
Output	4 Specify among 4 to 20 mA (2-wire, 4-wire), 1 to 5 V, 0 to 5 V, and 0 to 10 V.



Use the digital panelmeter together

## ● Specification

Non Linearity	$\pm 0.2\%$ R.C. (1MPa: $\pm 0.3\%$ R.C.)	Fastening Torque; Recommended	1~5MPa: 20N·m 10~50MPa: 40N·m, 100MPa: 80N·m
Hysteresis	$\pm 0.2\%$ R.C. (1MPa: $\pm 0.3\%$ R.C.)	Fastening Torque; Maximum	1~5MPa: 30N·m 10~50MPa: 60N·m, 100MPa: 120N·m
Compensated Temperature Range	-20~70°C (No condensation or freezing)	Power	Selectable: [A] DC24V ( $\pm 10\%$ ), [B] DC12V ( $\pm 10\%$ ) *Only 24V DC available when analog output is [A5].
Safe Temperature Range	-30~80°C (No condensation or freezing)	Cable	4- or 2-core shielded (oilproof) cable 2m (Standard) $\phi 6$ mm
Temperature Effect on Zero Balance	$\pm 0.2\%$ R.C./10°C	Mass	Approx. 200g (Cable not included)
Temperature Effect on Load	$\pm 0.2\%$ R.C./10°C	Accessories	Operation manual (1 copy) (Specify English or Japanese.) Test report (1 copy) Copper packing (x1) (G screw only)
Safe Overload Rating	150% R.C.		
Ultimate Overload Rating	200% R.C.		
Insulation Resistance	100M $\Omega$ or more (DC50V)		
Pressure Port Material	SUS630 or 15-5PH (Precipitation hardening stainless steels) (*1)		
Connection	Selectable: R3/8 and G3/8 (100MPa: R1/2 or G1/2)		

(\*1) Running change planned (since October 2011).

## ● Model Selection

- ① Model    ② Output    ③ Calibration    ④ Cable Connection    ⑤ Power    ⑥ Length (Cable)

Example

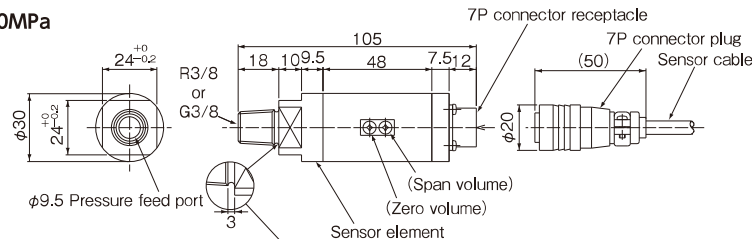


Selection	Check	Model	Specification			
① Model		VPRT	High Accurate Pressure Transmitter for Middle High Pressure *Connection screw: R3/8 (100MPa: R1/2 only)			
		VPRTF	High Accurate Pressure Transmitter for Middle High Pressure *Connection screw: G3/8 (100MPa: G1/2 only)			
② Output *Only [A6] available for waterproof terminal box type		A2	Output type: 1~5V, Response frequency: 500Hz, Safe load resistance: 5k $\Omega$ or more, Consumption current: Approx. 23mA			
		A3	Output type: 4~20mA (4 wire system), Response frequency: 500Hz, Safe load resistance: DC24V:500 $\Omega$ or less/DC12V:250 $\Omega$ or less, Consumption current: Approx. 40mA			
		A4	Output type: 0~5V, Response frequency: 500Hz, Safe load resistance: 5k $\Omega$ or more, Consumption current: Approx. 23mA			
		A5	Output type: 0~10V, Response frequency: 500Hz, Safe load resistance: 5k $\Omega$ or more, Consumption current: Approx. 23mA			
		A6	Output type: 4~20mA (2 wire system), Response frequency: 1kHz, Safe load resistance: DC24V:500 $\Omega$ or less/DC12V:150 $\Omega$ or less, Consumption current: —			
③ Calibration		See right table.	Rated capacity			
		Enter the range in the <input type="checkbox"/> as it is.	1 MPa	[1 MPa] (0~1) MPa	[0.5 MPa] (0~0.5) MPa	[-0.1~1 MPa] (-0.1~1) MPa
			2 MPa	[2 MPa] (0~2) MPa	[1 MPa] (0~1) MPa	[-0.1~2 MPa] (-0.1~2) MPa
			5 MPa	[5 MPa] (0~5) MPa	[2.5 MPa] (0~2.5) MPa	[-0.1~5 MPa] (-0.1~5) MPa
			10 MPa	[10 MPa] (0~10) MPa	[5 MPa] (0~5) MPa	[9.8 MPa] (0~9.8) MPa
			20 MPa	[20 MPa] (0~20) MPa	[10 MPa] (0~10) MPa	[19.6 MPa] (0~19.6) MPa
			50 MPa	[50 MPa] (0~50) MPa	[25 MPa] (0~25) MPa	[49 MPa] (0~49) MPa
			100 MPa	[100 MPa] (0~100) MPa	[70 MPa] (0~70) MPa	[98.1 MPa] (0~98.1) MPa
④ Cable Connection		Blank	Standard connector Equivalent to IP40			
		W	Waterproof connector Equivalent to IP56			
		S	Pigtail Equivalent to IP54			
		T	Waterproof terminal box type Equivalent to IP55 *Applicable only when analog output is [A6]. Cable not included			
⑤ Power		4	DC24V ( $\pm 10\%$ )			
		5	DC12V ( $\pm 10\%$ ) *Not available when analog output is [A5].			
⑥ Length (Cable)		2m	2m Standard			
		3m	3m			
		5m	5m			
		10m	10m			
		<input type="checkbox"/> m	Other length *Contact our sales office for other cable lengths.			

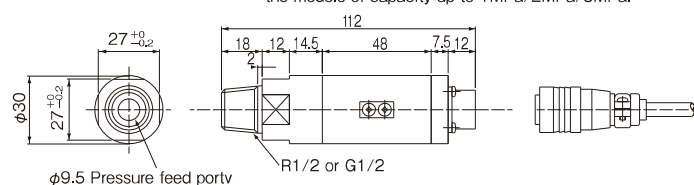
## ● External dimensions [Unit:mm] \*Refer to P45 for line connection

### ● Standard type connector

#### ● 1~50MPa



#### ● 100MPa



Pressure Transmitter VPRT(F)