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Smart Differential Pressure Transmitter

Model: 3051DP/GP Series

& GENERAL

3051DP/GP series is a digital differential pressure transmitter designed for industrial pressure measurement applications. 3051 series pressure transmitter and differential pressure transmitter adopt metal capacitance principle which can be configured to provide integrated solutions

& FEATURES

- Updating time of output current in 200 ms
- Improved performance, increased accuracy and greater stability
- Two years stability of 0.2%
- 0.1% accuracy
- Parameter setting by keypad directly
- 4-20 mA output plus direct digital HART communication
- Automatic zero calibration by press-button
- Explosion proof and weather proof housing



& STANDARD SPECIFICATION

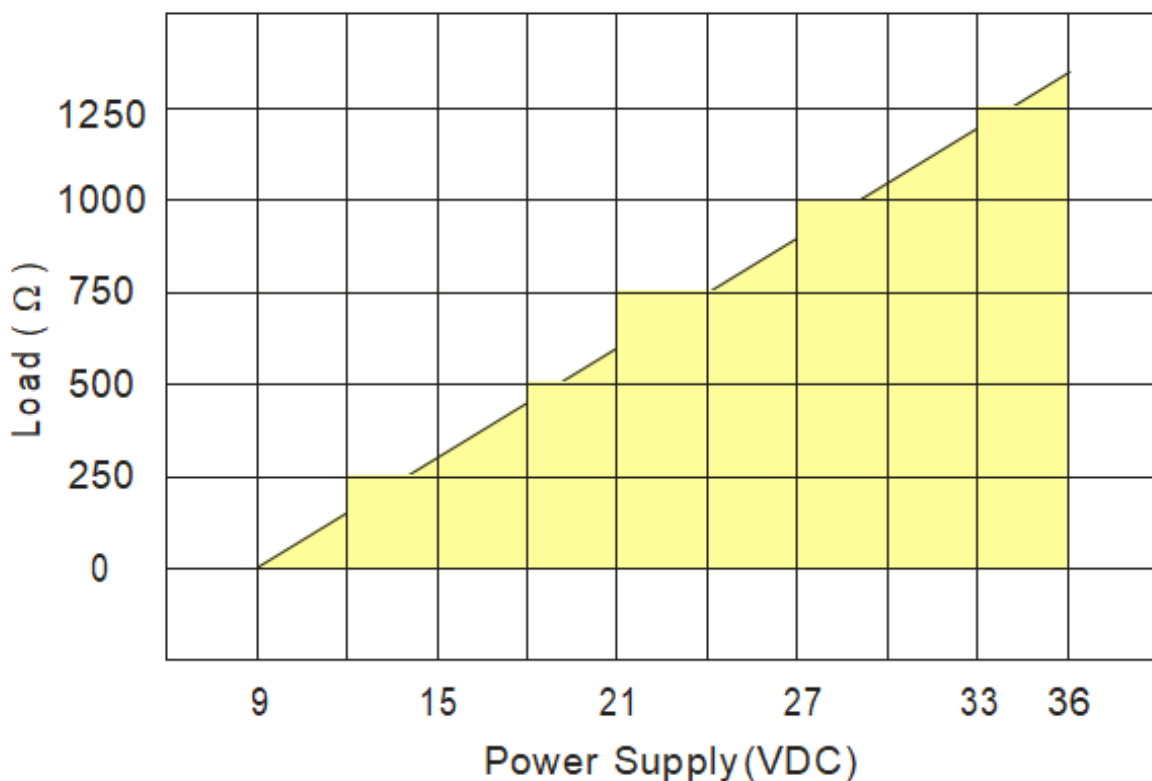
Process Fluid	Liquid, Gas or Vapor
Application	Absolute Pressure, Gauge Pressure, Differential Pressure
Measuring Range	0 - 0.16 kPa ~ 0 - 1.0 kPa (Minimum) 0 - 4.0 MPa ~ 0 - 20.0 MPa (Maximum)
Accuracy	+/- 0.1% of span
Stability	+/-0.15% of URL for 2 years
Working Temperature	-25 to +95 °C
Max. Pressure	40 MPa
Material	
	Flange/Adapter : Stainless Steel 304 / Stainless Steel 316
	Drains/Vents : Stainless Steel 304 / Stainless Steel 316
	Diaphragm : Stainless Steel 316L / Hastelloy B / Hastelloy C / Monel / Tantalum
Wetted O-Ring	Buna N / Viton / PTFE
Bolts & Nuts	Carbon Steel / Stainless Steel 316
Mounting Bracket	Carbon steel / Stainless Steel 304 / 316
Name / Tag Plate	Stainless Steel 304 / Stainless Steel 316
Converter Housing	Low copper cast aluminum alloy with polyurethane, light blue paint
Fill Fluid	Silicone / Fluorine Oil
Protection Class	IP65 (Standard) Intrinsically Safe EEx ia IIC T5 (Standard) Explosion proof Ex D IIB T5

Display	5 Digits programmable & 0-100% Bargraph
Display Unit	Standard 22 different engineering unit 5 Digits programmable for special unit
Keypad	3 internal keys for programming and output setting
Current Output	4 - 20 mA 2 wires with Hart signal (Compatible) Load : Rohm=(Vdc-9)*50
Power Supply	9 - 32 VDC
Damping	0 - 32 seconds
Response Time	200 ms
Mounting	Bracket on 2" Pipe
Humidity Limit	0 to 100% Relative Humidity
Turn on Time	2 Seconds with minimum damping
Zero Calibration	Automatic zero calibration by press-button
Cable Entry	M20 Conduit Threads / 1/2" NPT (Female)
Temperature Effect	+/-0.18% ~ +/-0.5% of span per 20 °C
Vibration Effect	+/-0.05% of URL per g to 200 Hz in any axis
EMI/RFI Effect	Follow SAMA PMC 33.1 from 20 to 1000 MHz and for field strengths up to 30 V/m
Process Connection	1/4" - 18 NPT 1/2" - 14 NPT(with adapter)
Ambient Temperature	-25 to +80 °C
Dimensions	102 mm (W) * 188 mm (H) * 130 mm (D)
Weight	3.5 Kg

& MEASURING RANGE

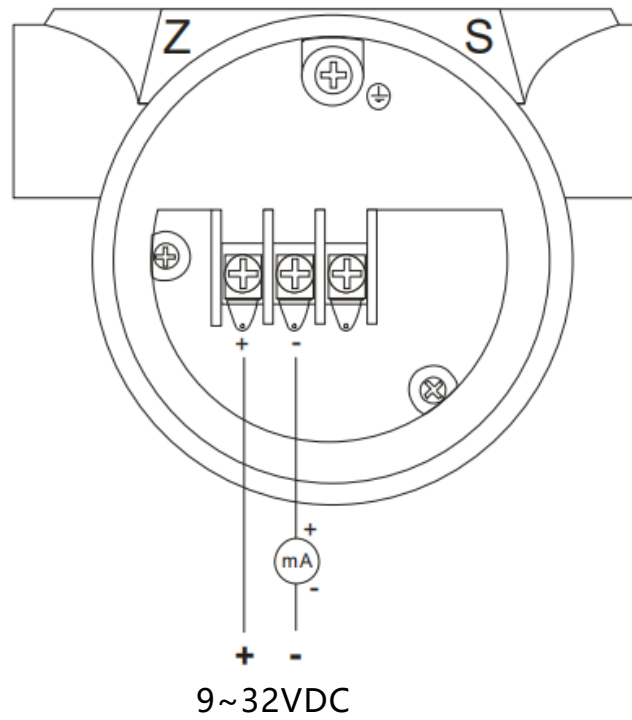
Range Code	Pressure Range				Transmitter		
	Low Range	High Range	Low Range	High Range	Differential Pressure	Gauge Pressure	Absolute Pressure
2	0 - 0.16 kPa	0 - 1.0 kPa	0 - 16.32 mmH2O	0 - 102.0 mmH2O	◆	◆	
	0 - 1.6 mbar	0 - 10 mbar	0 - 0.6423 InH2O	0 - 4.015 InH2O			
	0 - 0.023 psi	0 - 0.145 psi	0 - 0.001 Kg/cm2	0 - 0.010 Kg/cm2			
3	0 - 1.0 kPa	0 - 6.0 kPa	0 - 102.0 mmH2O	0 - 611.82 mmH2O	◆	◆	
	0 - 10 mbar	0 - 60 mbar	0 - 4.015 InH2O	0 - 24.088 InH2O			
	0 - 0.145 psi	0 - 0.87 psi	0 - 0.010 Kg/cm2	0 - 0.061 Kg/cm2			
4	0 - 6.0 kPa	0 - 40 kPa	0 - 611.82 mmH2O	0 - 4078 mmH2O	◆	◆	◆
	0 - 60 mbar	0 - 400 mbar	0 - 24.088 InH2O	0 - 160.6 InH2O			
	0 - 0.87 psi	0 - 5.802 psi	0 - 0.061 Kg/cm2	0 - 0.408 Kg/cm2			
5	0 - 40 kPa	0 - 200 kPa	0 - 4.079 MH2O	0 - 20.39 MH2O	◆	◆	◆
	0 - 400 mbar	0 - 2000 mbar	0 - 160.6 InH2O	0 - 802.9 InH2O			
	0 - 5.802 psi	0 - 29.0 psi	0 - 0.408 Kg/cm2	0 - 2.039 Kg/cm2			
6	0 - 160 kPa	0 - 1000 kPa	0 - 16.32 MH2O	0 - 101.97 MH2O	◆	◆	◆
	0 - 1.6 bar	0 - 10 bar	0 - 642.3 InH2O	0 - 4014 InH2O			
	0 - 23.21 psi	0 - 145 psi	0 - 1.632 Kg/cm2	0 - 10.197 Kg/cm2			
7	0 - 400 kPa	0 - 2500 kPa	0 - 40.79 MH2O	0 - 254.9 MH2O	◆	◆	◆
	0 - 4.0 bar	0 - 25 bar	0 - 1605 InH2O	0 - 10036 InH2O			
	0 - 58.02 psi	0 - 362.6 psi	0 - 4.079 Kg/cm2	0 - 25.49 Kg/cm2			
8	0 - 1.6 MPa	0 - 8.0 MPa	0 - 163.1 MH2O	0 - 815.76 MH2O		◆	
	0 - 16 bar	0 - 80 bar	0 - 6423.4 InH2O	0 - 32117 InH2O			
	0 - 232.1 psi	0 - 1160.3 psi	0 - 16.32 Kg/cm2	0 - 81.578 Kg/cm2			
9	0 - 4.0 MPa	0 - 20 MPa	0 - 407.9 MH2O	0 - 2039.4 MH2O		◆	
	0 - 40 bar	0 - 200 bar	0 - 16059 InH2O	0 - 80292.6 InH2O			
	0 - 580.2 psi	0 - 2901 psi	0 - 40.79 Kg/cm2	0 - 203.94 Kg/cm2			

& SUPPLY VOLTAGE VS LOOP LOAD

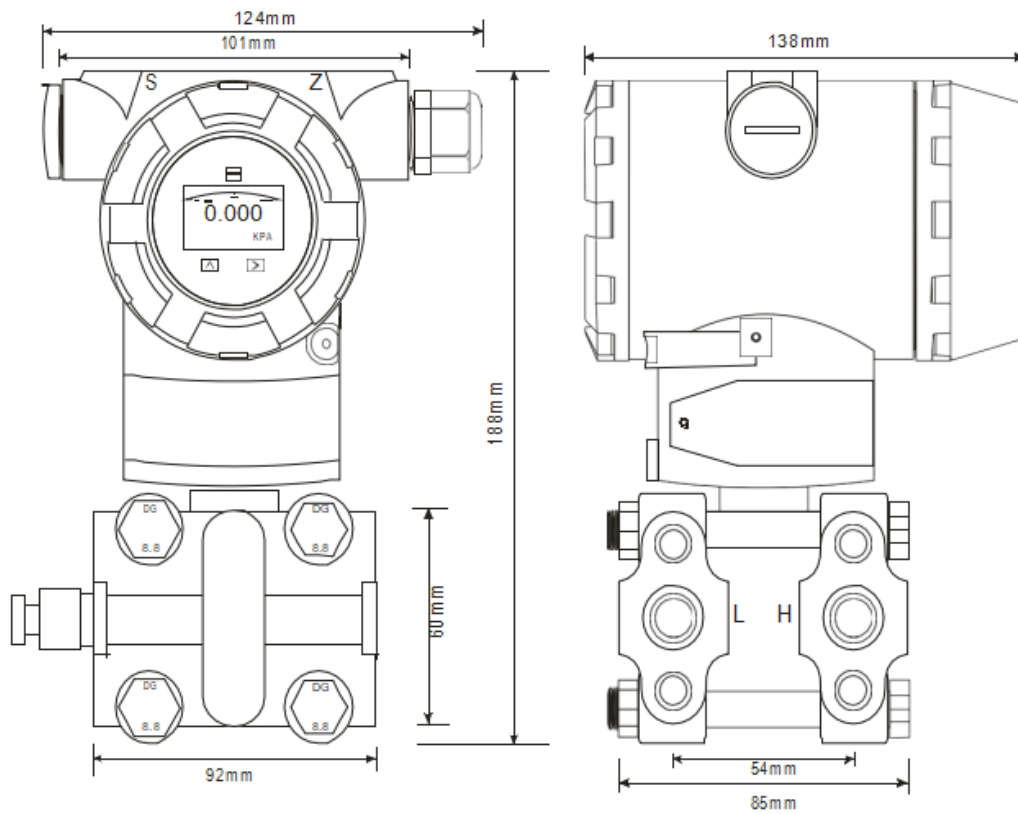


Differential Pressure Transmitter/Pressure Transmitter

& WIRING DIAGRAM



& DIMENSIONS



& MODEL SELECTION GUIDE

Item	Code	Specification
3051DP		Differential Pressure Transmitter
3051GP		Gauge Pressure Transmitter
Measurement Range	2	0-0.1~1.5 Kpa
	3	0~7.5 Kpa
	4	0~37.4 Kpa
	5	0~186.8 Kpa
	6	0~690 Kpa
	7	0~2068 Kpa
	8	0~6890 Kpa
	9	0~20680 Kpa
Output	S	4-20mA, HART Protocol, Linear output
	J	4-20mA, HART Protocol, Square root output(Range≥5kpa)
Diaphragm Material / Fill Fluid	2	Stainless Steel 316L Silicone Oil
	3	Hastelloy C(range >3Kpa) Silicone Oil
	A	Stainless Steel 316L Fluorine oil
Drain hole	B	Back of process flange or none
	U	Process flange side upper
	L	Process flange side lower
Wetted O-ring Material	7	Buna-N (NBR)
	6	Viton (FKM) (Temperature ≥-20°C)
	5	Low Temperature Viton (FKM-GFLT)
Process Connection	H	1/4" NPT F
Maximum Pressure Limit	1	14 Mpa(4Mpa for range 2)
	3	25 Mpa
	5	32 Mpa
Cable Entry	1	M20*1.5
Mounting Bracket	B00	None
	B01	Tube-type Curved Bracket (carbon steel)
	B02	Wall mounting bracket (carbon steel)
	B03	Tube-type Flat Bracket (carbon steel)
	B04	Tube-type Curved Bracket (stainless steel)
	B05	Wall mounting bracket (stainless steel)
	B06	Tube-type Flat Bracket (stainless steel)
Optional	d	Intrinsically safe type, Flameproof (Exd IIC T4~T6)
	i	Intrinsically safe (Exia IIC T4~T6)
	M3	LCD display
	D1	Stainless steel drain valve or screw (2pcs)
	C1	1/2" NPT female waist flange (2sets)
	C12	1/2" NPT-M20*1.5-Φ14 pressure pipe (2sets)
	C2	M20*1.5 male thread T joint (2sets)
	C21	M20*1.5 T joint -Φ14 pressure pipe (2sets)
	K1	Degreasing treatment

Direct Mount Pressure Transmitter-Thread Mounted

Model 3051TG/TA Series

& GENERAL

3051TG/TA series is a digital pressure transmitter designed for industrial pressure measurement applications.

This series offers configurations for gauge pressure, absolute pressure and vacuum including integrated solutions for industrial applications.

& FEATURES

Updating time of output current in 90 ms

Improved performance, increased accuracy and greater stability

Two years stability of 0.15%

0.1% accuracy

Parameter setting by keypad directly

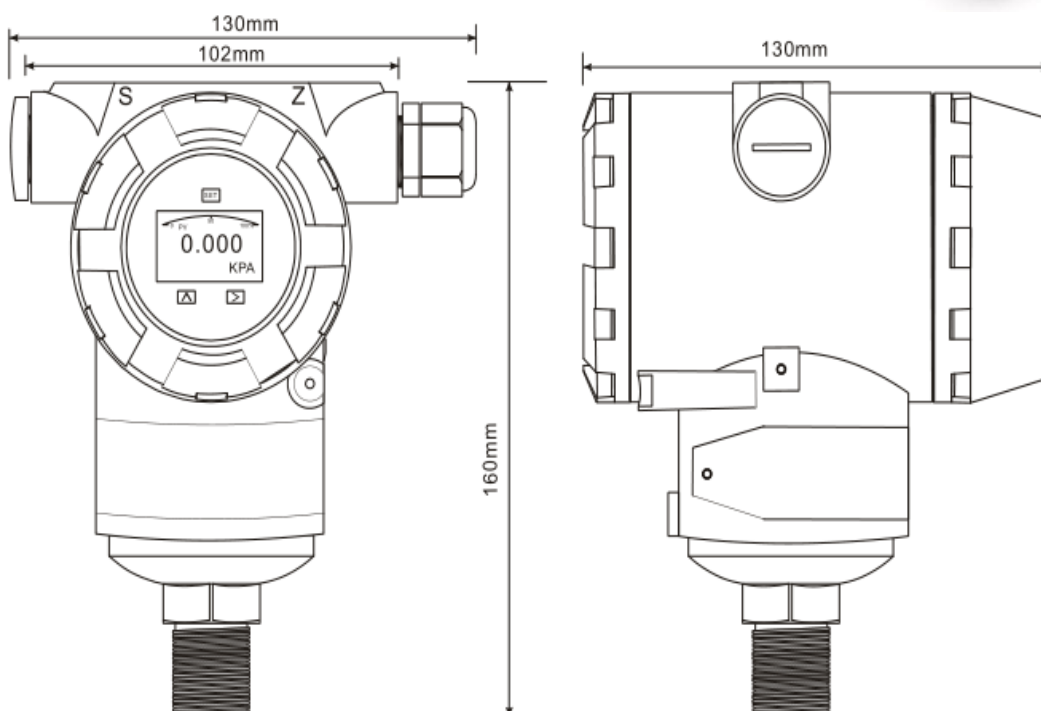
4-20 mA output plus direct digital HART communication Automatic

zero calibration by press-button

Explosion proof and weather proof housing



& DIMENSIONS



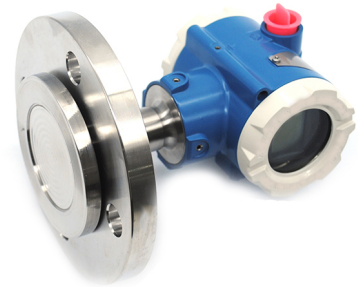
Direct Mount Pressure Transmitter- Diaphragm Flange Mounted Model 3051TG/TA Series

& GENERAL

3051TG flat diaphragm pressure transmitter meets customer requirements of flange installation. Diaphragm seal pressure transmitter is a secondary oil-filled transmitter. There is no clogging of viscous medium during the measurement process. It is integrated Structure which is suitable for viscous media such as chemical coatings, paints, mud, asphalt, crude oil and other viscous media containing particles, widely used in industrial process measurement control for petroleum, chemical, metallurgy etc .

& FEATURES

- Updating time of output current in 90 ms
- Improved performance, increased accuracy and greater stability
- Two years stability of 0.15%
- 0.1% accuracy
- Parameter setting by keypad directly
- 4-20 mA output plus direct digital HART communication
- Automatic zero calibration by press-button
- Explosion proof and weather proof housing



Process Fluid	Liquid, Gas or Vapor
Fill Fluid	Silicone (Max. Temperature 130 °C)
Measuring Range	- 100kpa.....100Kpa ~ 35Mpa
Diaphragm Material	Stainless Steel 316L Hastelloy B Hastelloy C Tantalum Titanium PTFE-coated Tantalum Monel
Flange Size	40mm, 50mm, 80mm, 100mm 1-1/2", 2", 3", 4"
Process Connection	Flange connecting
Flange Rating	JIS 10K / JIS 20K / JIS 40K ANSI 150# / ANSI 300# / ANSI 600# DIN PN10 / PN16 / PN25 / PN40 (DIN32676 / ISO2852)
Signal Output	4-20mA+ Hart

& MODEL SELECTION GUIDE

Item	Code	Specification
3051TG		Gauge Pressure Transmitter
3051TA		Absolute Pressure Transmitter
Measurement Range	3	0-1.5~7.5 Kpa
	4	0~37.4 Kpa
	5	0~186.8 Kpa
	6	0~690 Kpa
	7	0~2068 Kpa
	8	0~6890 Kpa
	9	0~20680 Kpa
	0	0~41370 Kpa
Output	S	4-20mA, HART Protocol, Linear output
Diaphragm Material	2	Stainless Steel 316L
	3	Hastelloy C
Fill Fluid	2	Silicone Oil
	3	Fluorine oil
Process Connection	D	1/2" NPT F
	A	M20*1.5
	B	1/2" NPT M
	C	1/2" G
	T	Flange with DN**(unit=mm)
Cable Entry	1	M20*1.5
Mounting Bracket	B00	None
	B15	Tube-type Flat Bracket (carbon steel)
	B16	Wall mounting bracket (carbon steel)
	B17	Tube-type Flat Bracket (stainless steel)
Optional	B18	Wall mounting bracket (stainless steel)
	d	Intrinsically safe type, Flameproof (Exd IIC T4~T6)
	i	Intrinsically safe (Exia IIC T4~T6)
	M3	LCD display
	K1	Degreasing treatment
	L1	Hanging tag
	5C6	Lightning protection

Smart Level Transmitter

Model 3051LT Series

& GENERAL

3051LT series is a digital differential pressure transmitter designed for industrial level measurement applications. It can be configured to provide intergrated solutions for a broad range of pressure and flow measurement applications.



& FEATURES

- Updating time of output current in 200 ms
- Improved performance, increased accuracy and greater stability
- Two years stability of 0.15%
- 0.1% accuracy
- Parameter setting by keypad directly
- 4-20 mA output plus direct digital HART communication
- Automatic zero calibration by push-button
- Explosion proof and weather proof housing



& STANDARD SPECIFICATION

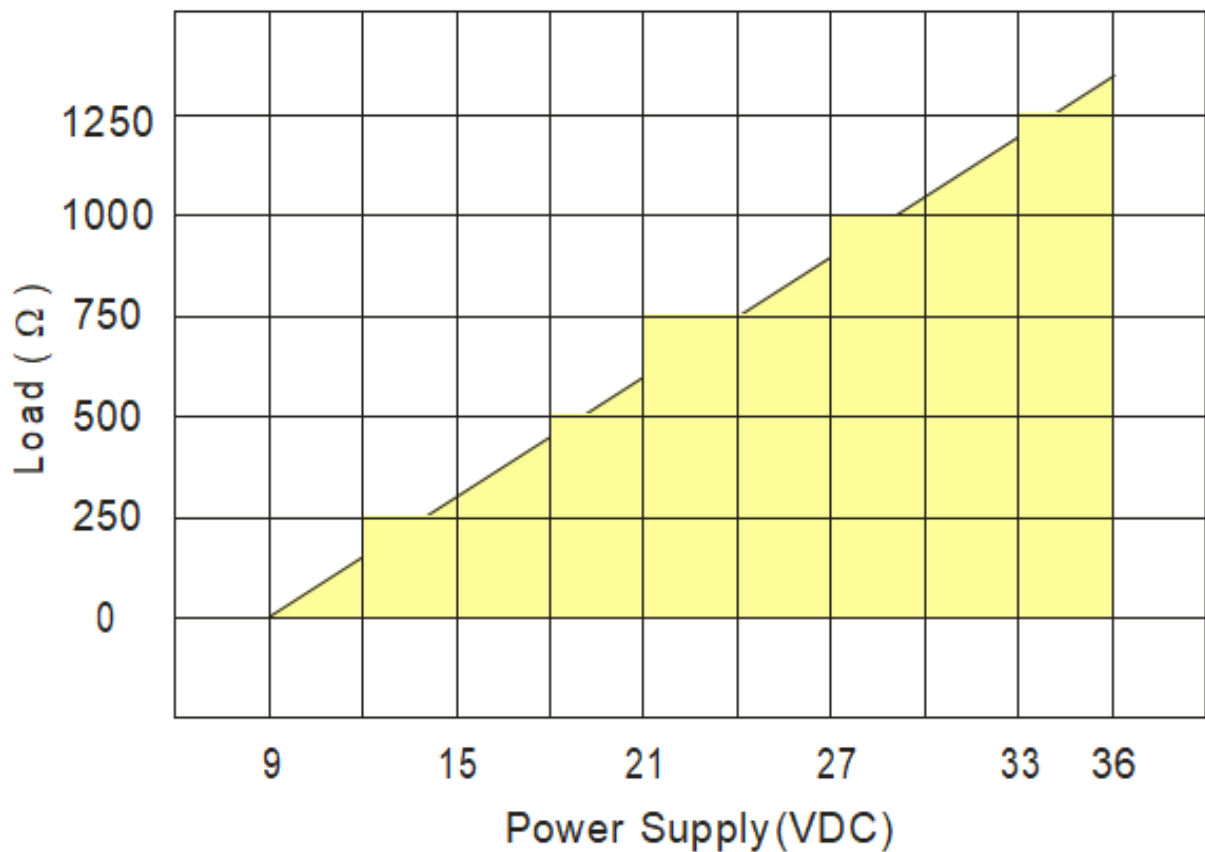
Process Fluid	Liquid
Application	Liquid Level, Differential Pressure, Gauge Pressure, Absolute Pressure
Measuring Range	0 - 6.0 kPa ~ 0 - 40 kPa (Minimum) 0 - 4.0 MPa ~ 0 - 20.0 MPa (Maximum)
Accuracy	+/- 0.1% of span
Stability	+/-0.15% of URL for 2 years
Working Temperature	-40 to +250 °C
Max. Pressure	40 MPa (Dependent on flange rating)
Material	Flange/Adapter : Carbon Steel / Stainless Steel 304 / : Stainless Steel 316
	Diaphragm : Stainless Steel 316L / Hastelloy B / Hastelloy C / Monel / Tantalum
	Bolts & Nuts : Carbon Steel / Stainless Steel 316
	Name / Tag Plate : Stainless Steel 304 / Stainless Steel 316
	Converter Housing : Low copper cast aluminum alloy with polyurethane, light blue paint
	Fill Fluid : Silicone / High Temperature Silicone Fluorine Oil / Vegetable Oil
Protection Class	IP67 (Standard) Intrinsically Safe EEx ia IIC T5 (Standard) Explosion proof Ex D IIB T5

Display	5 Digits programmable & 0-100% Bargraph
Display Unit	Standard 22 different engineering unit 5 Digits programmable for special unit
Keypad	3 internal keys for programming and output setting
Current Output	4 - 20 mA 2 wires with Hart Signal (Compatible) Load : $R_{ohm} = (V_{dc} - 9) * 50$
Power Supply	9 - 32 VDC
Digital Communication	Hart Protocol
Damping	0 - 32 seconds
Response Time	100 mS
Turn on Time	2 Seconds with minimum damping
Zero Calibration	Automatic calibration by push-button
Cable Entry	1/2" NPT(Female) / M20 Conduit Threads
Temperature Effect	+/-0.18% ~ +/-0.5% of span per 20 °C
EMI/RFI Effect	Follow SAMA PMC 33.1 from 20 to 1000 MHz and for field strengths up to 30 V/m
Process connection	High Pressure Side : 1-1/2", 2", 3", 4" Flanges ANSI / DIN / JIS / Tri-Clamp Extended Diaphragm : 2", 4", 6" length Low Pressure Side : 1/4" - 18 NPT , 1/2" - 14 NPT
Ambient Temperature	-25 to +85 °C
Dimensions	102 mm (W) * 188 mm (H) * 189 mm (D)
Weight	8 - 15 Kg

& MEASURING RANGE

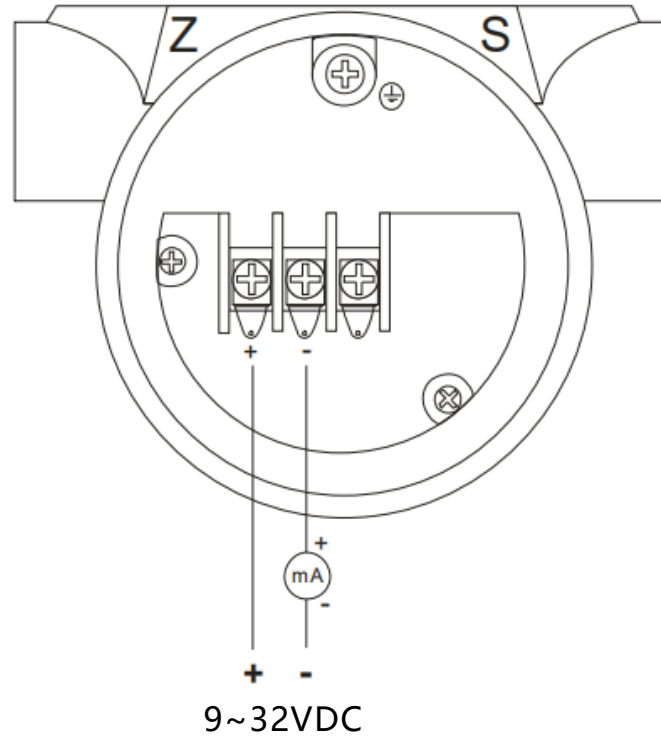
Range Code	Pressure Range				Transmitter		
	Low Range	High Range	Low Range	High Range	Differential Pressure	Level Pressure	Absolute Pressure
4	0 - 6.0 kPa	0 - 40 kPa	0 - 611.82 mmH2O	0 - 4078 mmH2O	◆	◆	◆
	0 - 60 mbar	0 - 400 mbar	0 - 24.088 InH2O	0 - 160.6 InH2O			
	0 - 0.87 psi	0 - 5.802 psi	0 - 0.061 Kg/cm2	0 - 0.408 Kg/cm2			
5	0 - 40 kPa	0 - 200 kPa	0 - 4.079 MH2O	0 - 20.39 MH2O	◆	◆	◆
	0 - 400 mbar	0 - 2000 mbar	0 - 160.6 InH2O	0 - 802.9 InH2O			
	0 - 5.802 psi	0 - 29.0 psi	0 - 0.408 Kg/cm2	0 - 2.039 Kg/cm2			
6	0 - 160 kPa	0 - 1000 kPa	0 - 16.32 MH2O	0 - 101.97 MH2O	◆	◆	◆
	0 - 1.6 bar	0 - 10 bar	0 - 642.3 InH2O	0 - 4014 InH2O			
	0 - 23.21 psi	0 - 145 psi	0 - 1.632 Kg/cm2	0 - 10.197 Kg/cm2			
7	0 - 400 kPa	0 - 2500 kPa	0 - 40.79 MH2O	0 - 254.9 MH2O	◆	◆	◆
	0 - 4.0 bar	0 - 25 bar	0 - 1605 InH2O	0 - 10036 InH2O			
	0 - 58.02 psi	0 - 362.6 psi	0 - 4.079 Kg/cm2	0 - 25.49 Kg/cm2			
8	0 - 1.6 MPa	0 - 8.0 MPa	0 - 163.1 MH2O	0 - 815.76 MH2O		◆	
	0 - 16 bar	0 - 80 bar	0 - 6423.4 InH2O	0 - 32117 InH2O			
	0 - 232.1 psi	0 - 1160.3 psi	0 - 16.32 Kg/cm2	0 - 81.578 Kg/cm2			
9	0 - 4.0 MPa	0 - 20 MPa	0 - 407.9 MH2O	0 - 2039.4 MH2O		◆	
	0 - 40 bar	0 - 200 bar	0 - 16059 InH2O	0 - 80292.6 InH2O			
	0 - 580.2 psi	0 - 2901 psi	0 - 40.79 Kg/cm2	0 - 203.94 Kg/cm2			

& SUPPLY VOLTAGE VS LOOP LOAD

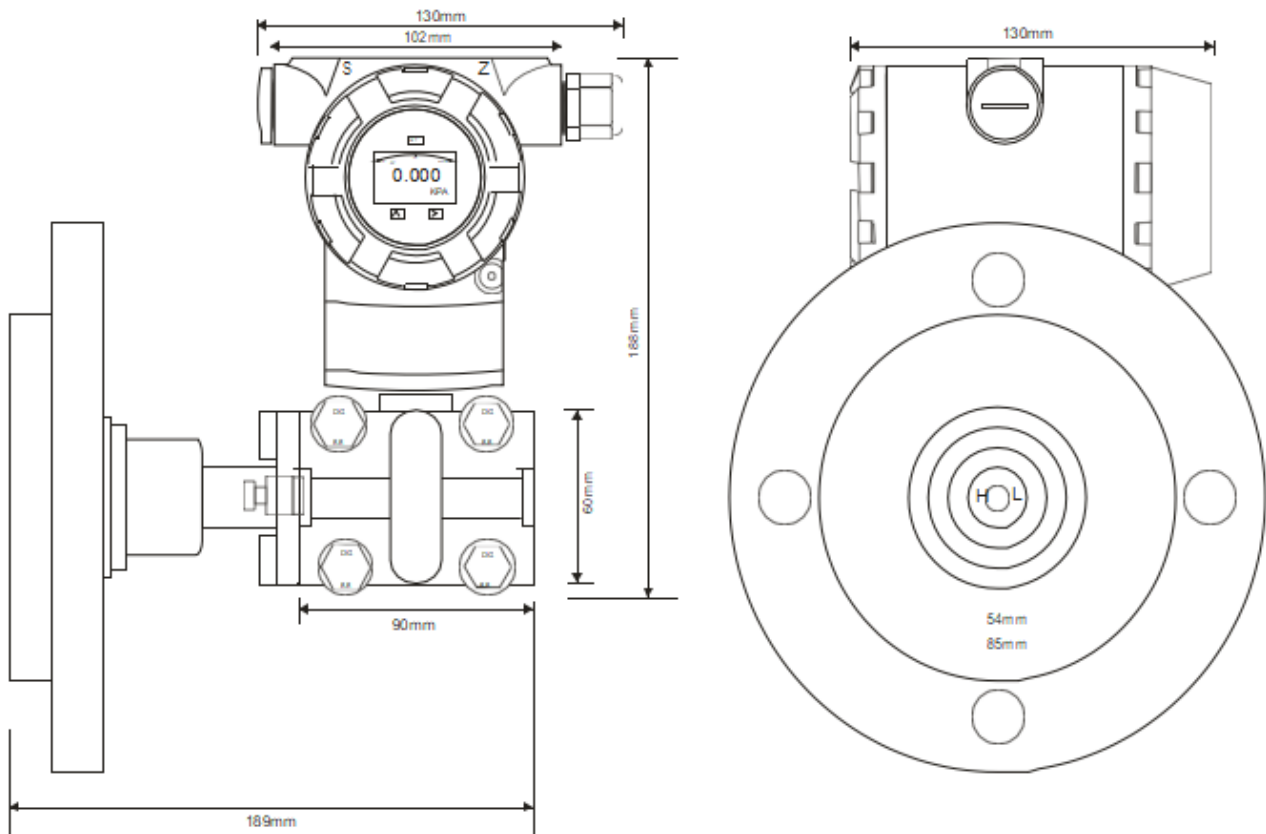


Diaphragm Level Transmitter

& WIRING DIAGRAM



& DIMENSIONS



& MODEL SELECTION GUIDE

Item	Code	Specification
3051LT		Smart Level Transmitter
Measurement Range	3	0-4~7.5 Kpa
	4	0~37.4 Kpa
	5	0~186.8 Kpa
	6	0~690 Kpa
	7	0~2068 Kpa
Output	S	4-20mA, HART Protocol, Linear output
Sensor Diaphragm Material/ Fill Fluid	2	Stainless Steel 316L Silicone Oil
	3	Hastelloy C Silicone Oil
	A	Stainless Steel 316L Fluorine oil
Drain hole	B	Back of process flange or none
	U	Process flange side upper
	L	Process flange side lower
Wetted O-ring Material	7	Buna-N (NBR)
	6	Viton (FKM) (Temperature $\geq -20^{\circ}\text{C}$)
	5	Low Temperature Viton (FKM-GFLT)
Cable Entry	1	M20*1.5
Process Connection	C	2" ANSI 150#
	D	2" ANSI 300#
	J	2" ANSI 600#
	E	3" ANSI 150#
	F	3" ANSI 300#
	K	3" ANSI 600#
	G	4" ANSI 150#
	H	4" ANSI 300#
	Q	DN50 PN1.6MPa/4Mpa
	R	DN50 PN6.4Mpa
	M	DN50 PN10Mpa
	S	DN80 PN1.6MPa/4Mpa
	T	DN80 PN6.4Mpa
	N	DN80 PN10Mpa
	U	DN100 PN1.6MPa/4Mpa
	W	DN100 PN6.4Mpa
Flange Diaphragm Material	A	Stainless steel 316L
	B	Hastelloy C
	C	Tantalum
	E	PFA coating
	F	F46 coating
	G	Gold-plated
Insert Tube Length	0	0
	1	50mm
	2	100mm
	3	150mm
Fill Fluid(High pressure side)	A	Silicone Oil
	C	Fluorine oil
Optional	d	Intrinsically safe type, Flameproof (Exd IIC T4~T6)
	i	Intrinsically safe (Exia IIC T4~T6)
	M3	LCD display
	D1	Stainless steel drain valve or screw (2pcs)
	C1	1/2" NPT female waist flange (2sets)
	C12	1/2" NPT-M20*1.5- Φ 14 pressure pipe (2sets)
	C2	M20*1.5 male thread T joint (2sets)
	C21	M20*1.5 T joint - Φ 14 pressure pipe (2sets)
K1	Degreasing treatment	

Remote Diaphragm Seal Level Transmitter

3051 RD Series

& GENERAL

3051RD series is a diaphragm seal product , which designed for the high-viscosity/ granular / high-temp./ high-corrosivity situation. RD series diaphragm seal assembles Alia pressure /DP transmitter to form direct-mount / capillary-connections style.



& FEATURES

The maximum temperature comes up to 280 °C
 Multiple connection modes - Flange style / Tri-Clamp style
 Multiple diaphragms/alternative connection material
 It can be used for fill fluid for food industry
 Extreme hot and cold temperature
 Stainless Steel with PPC coating capillary
 Tri-Clamp or union screw connection for food industry
 Oil-free treatment & water-free treatment
 Fast and dynamic response
 Improved performance, increased accuracy and great stability



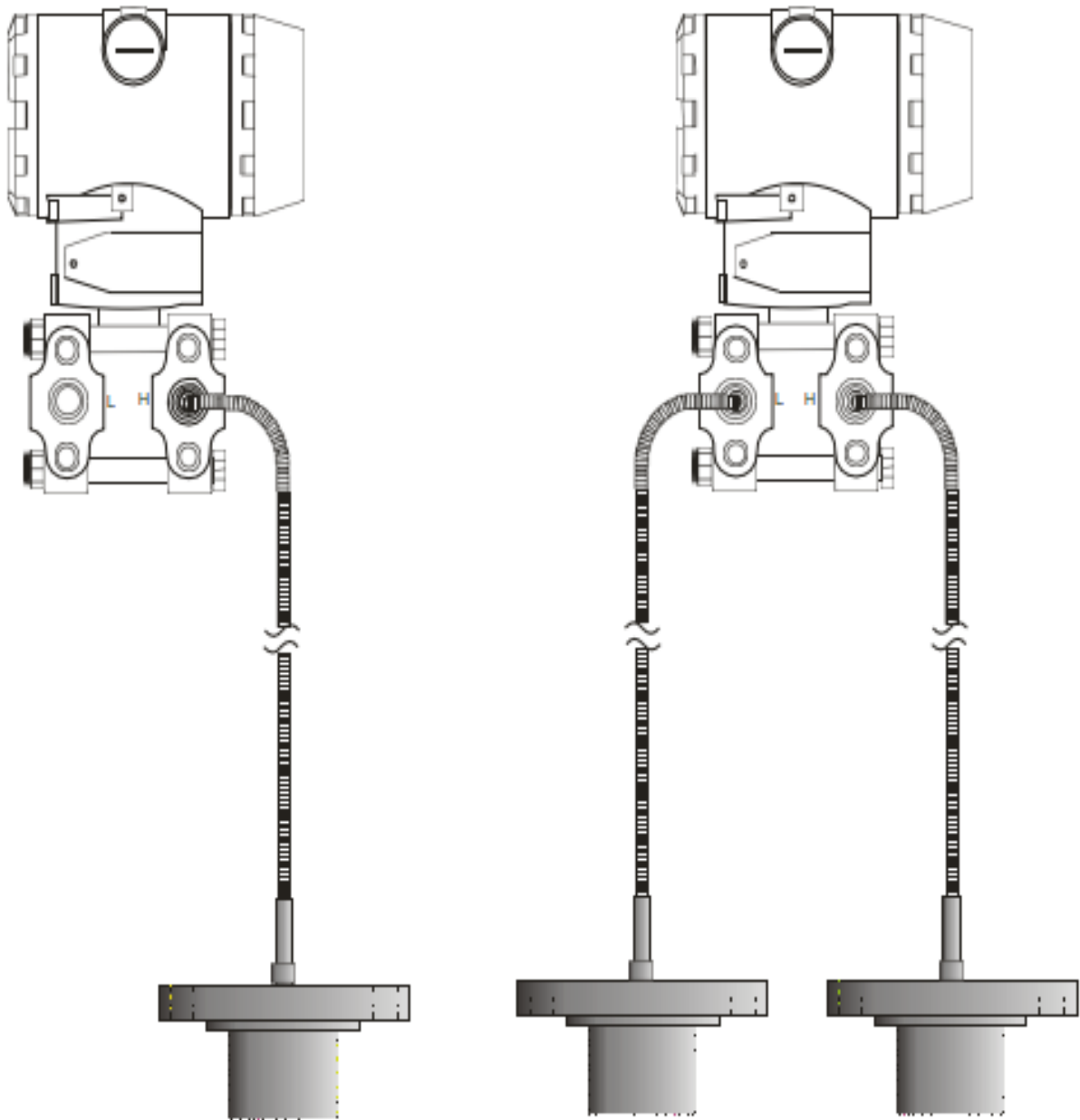
& STANDARD SPECIFICATION

Process Fluid	Liquid, Gas or Vapor
Application	Liquid Level, Differential Pressure, Gauge Pressure, Absolute Pressure
Measuring Range	0 - 6.0 kPa ~ 0 - 40 kPa (Minimum) 0 - 4.0 MPa ~ 0 - 20.0 MPa (Maximum)
Material	Flange : Carbon steel Stainless Steel 304 Stainless Steel 316 Diaphragms : Stainless Steel 316L : Hastelloy B : Hastelloy C : Tantalum : PTFE-coated Tantalum Diaphragm Capillary : Stainless Steel with PVC coating
Flange Size	40mm, 50mm, 80mm, 100mm 1-1/2", 2", 3", 4"
Process Connection	Flange
Flange Rating	JIS 10K / JIS 20K / JIS 40K ANSI 150# / ANSI 300# / ANSI 600# DIN PN10 / PN16 / PN25 / PN40 Tri Clamp (DIN32676 / ISO2852)
Extension Length	2", 3", 4"

Installation Style	Direct-mount: RD One-sided Capillary: RD1 Two-sided Capillaries: RD2
Capillary Length	1.0 M ~ 10 M
Max. Temperature	Direct-Mount : -20 to 80 °C Remote Diaphragm : -40 to 280 °C
Max. Pressure	8.0MPa
Fill Fluid and Maximum	Silicone (Max. Temperature 130 °C)
Temperature	HT Silicone (Max. Temperature 280 °C) Fluorine (Max. Temperature 160 °C) Vegetable Oil (Max. Temperature 130 °C)
Ambient Temperature	+/-0.18% ~ +/-0.5% of span per 20 °C Effect
Time Response	Less than 1.12 seconds
Options	Water-free Treatment :Wetted parts are water-free treated in manufacturing Oil-free Treatment :Wetted parts are oil-free treated in manufacturing
Stability	+/-0.15% of URL for 2 years
Accuracy	+/-0.1% of Span

& MEASURING RANGE & MAX. STATIC PRESSURE

Direct-Mount Diaphragm	Min. Range	Max. Range	Min. Range	Max. Range	Max. Static Pressure
Pressure Transmitter RD Series	0 - 10 kPa	0 - 100 MPa	0 - 1019.7 mmH2O	0 - 10197 MH2O	100 MPa
	0 - 100 mbar	0 - 1000 bar	0 - 40.15 InH2O	0 - 401463 InH2O	
	0 - 1.45 psi	0 - 14504 psi	0 - 0.1 Kg/cm2	0 - 1020 kg/cm2	
Remote Diaphragm Seal	Min. Range	Max. Range	Min. Range	Max. Range	Max. Static Pressure
Pressure Transmitter RD1 Series	0 - 6.0 kPa	0 - 8.0 MPa	0 - 611.82 mmH2O	0 - 815.76 MH2O	8.0 MPa
	0 - 60 mbar	0 - 80 bar	0 - 24.088 InH2O	0 - 32117 InH2O	
	0 - 0.87 psi	0 - 1160.3 psi	0 - 0.061 Kg/cm2	0 - 81.578 Kg/cm2	
Differential Pressure Transmitter RD1 / RD2 Series	0 - 6.0 kPa	0 - 8.0 MPa	0 - 611.82 mmH2O	0 - 815.76 MH2O	8.0 MPa
	0 - 60 mbar	0 - 80 bar	0 - 24.088 InH2O	0 - 32117 InH2O	
	0 - 0.87 psi	0 - 1160.3 psi	0 - 0.061 Kg/cm2	0 - 81.578 Kg/cm2	
Level Transmitter RD1 Series	0 - 6.0 kPa	0 - 8.0 MPa	0 - 611.82 mmH2O	0 - 815.76 MH2O	8.0 MPa
	0 - 60 mbar	0 - 80 bar	0 - 24.088 InH2O	0 - 32117 InH2O	
	0 - 0.87 psi	0 - 1160.3 psi	0 - 0.061 Kg/cm2	0 - 81.578 Kg/cm2	



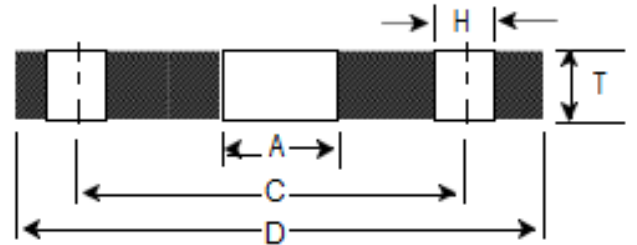
RD1 Series

RD2 Series

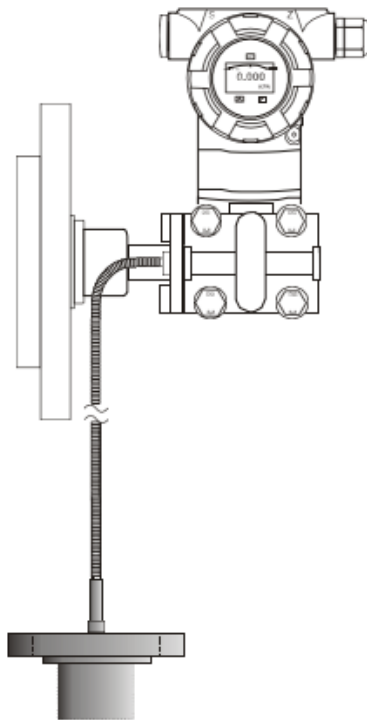
Diaphragm Level Transmitter

& FLANGE TABLES

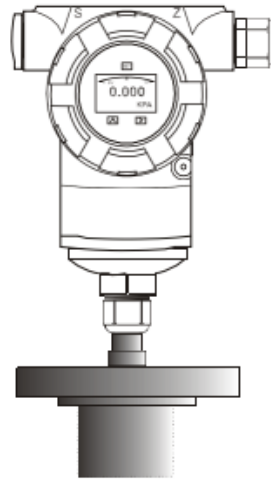
Flange style	Dimension of Flange			Bolt		Flange style	Dimension of Flange			Bolt	
	C	D	T	H	NO		C	D	T	H	NO
1-1/2" JIS 10K	105	140	16	19	4	DN40 PN10	110	150	18	18	4
2" JIS 10K	120	155	16	19	4	DN50 PN10	125	165	20	18	4
3" JIS 10K	150	185	18	19	8	DN80 PN10	160	200	24	18	8
4" JIS 10K	175	210	18	19	8	DN100 PN 10	180	220	20	18	8
1-1/2" JIS 20K	105	140	16	19	4	DN40 PN16	110	150	18	18	4
2" JIS 20K	120	155	16	19	4	DN50 PN16	125	165	20	18	4
3" JIS 20K	160	200	20	23	8	DN80 PN16	160	200	24	18	8
4" JIS 20K	185	225	22	23	8	DN100 PN16	180	220	24	18	8
1-1/2" JIS 40K	120	160	24	23	4	DN40 PN25	110	150	18	18	4
2" JIS 40K	130	165	26	19	8	DN50 PN25	125	165	20	18	4
3" JIS 40K	170	210	32	23	8	DN80 PN25	160	200	24	18	8
4" JIS 40K	205	250	36	25	8	DN100 PN25	190	235	24	22	8
1-1/2" ANSI 150#	98.6	127	18	15.7	4	DN40 PN40	110	150	22	18	4
2" ANSI 150#	120.7	152.4	19	19.1	4	DN50 PN40	125	165	24	18	4
3" ANSI 150#	152.4	190.5	24	19.1	4	DN80 PN40	160	200	24	18	8
4" ANSI 150#	190.5	228.6	24	19.1	8	DN100 PN40	190	235	24	22	8
1-1/2" ANSI 300#	114.3	155.4	24.6	22.4	4						
2" ANSI 300#	127	165.1	26.4	19.1	8						
3" ANSI 300#	168.1	209.6	32.4	22.4	8						
4" ANSI 300#	200.2	254	35.8	22.4	8						



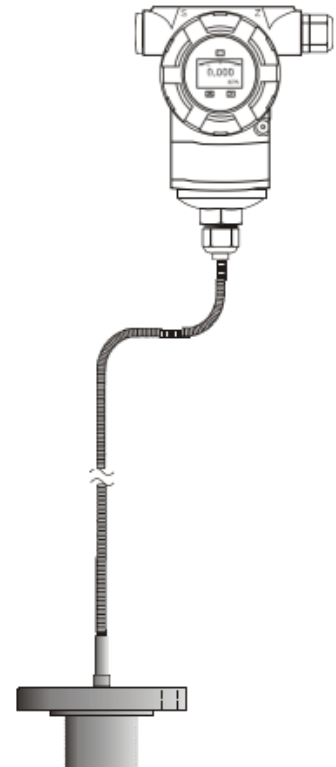
& DIMENSIONS



RD1 Series



RD Series

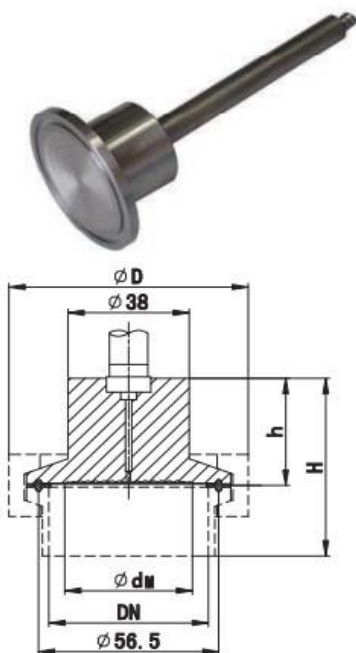


RD1 Series

& MODEL SELECTION GUIDE

Item	Code/Specification			
3051RD-Two Side Capillary 3051RT-One Side Capillary	Smart Remote Level Transmitter			
Measurement Range	3051RD		3051RT	
	3	0-4~7.5 Kpa	4	0-6 ~ 37.4 Kpa
	4	0~37.4 Kpa	5	0 ~ 186.8 Kpa
	5	0~186.8 Kpa	6	0 ~ 690 Kpa
	6	0~690 Kpa	7	0~2068 Kpa
	7	0~2068 Kpa	8	0~6890 Kpa
			9	0~20680 Kpa
Output	S	4-20mA, HART Protocol, Linear output		
Cable Entry	1	M20*1.5		
Mounting Bracket	B00	None		
	B01	Tube-type Curved Bracket (carbon steel)		
	B02	Wall mounting bracket (carbon steel)		
	B03	Tube-type Flat Bracket (carbon steel)		
	B04	Tube-type Curved Bracket (stainless steel)		
	B05	Wall mounting bracket (stainless steel)		
	B06	Tube-type Flat Bracket (stainless steel)		
Optional	d	Intrinsically safe type, Flameproof (Exd IIC T4~T6)		
	i	Intrinsically safe (Exia IIC T4~T6)		
	M3	LCD display		
	K1	Degreasing treatment		
	L1	Hanging tag		
	5C6	Lightning protection		

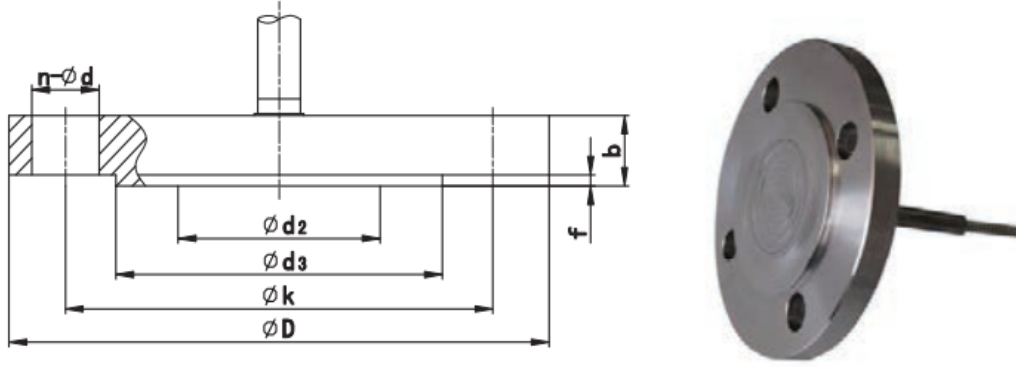
& 1199SCW TRI CLAMP TYPE



Process Connection	A	2"
	C	DN50
Flange Material	1	Stainless steel
Fill Fluid (High pressureside)	A	Silicone Oil
	C	Fluorine oil
Capillary Length	0	0m
	1	1m
	2	2m
	3	4m
	4	6m
	5	8m
Capillary protective sleeve	n	No Capillary
	A	Capillary with PVC sleeve
	B	Capillary without PVC sleeve

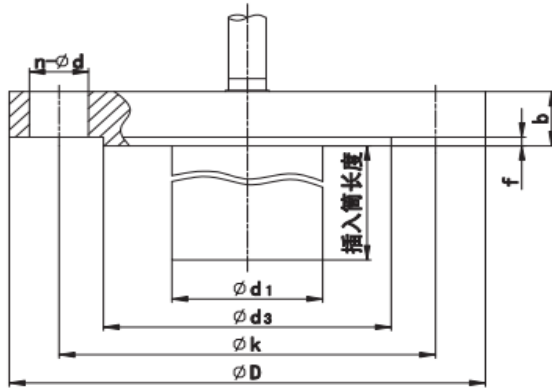
Diaphragm Level Transmitter

& 1199FFW FLAT FLANGE



Process Connection	C	2" ANSI 150#
	D	2" ANSI 300#
	J	2" ANSI 600#
	E	3" ANSI 150#
	F	3" ANSI 300#
	K	3" ANSI 600#
	G	4" ANSI 150#
	H	4" ANSI 300#
	Q	DN50 PN1.6MPa/4Mpa
	R	DN50 PN6.4Mpa
	M	DN50 PN10Mpa
	S	DN80 PN1.6MPa/4Mpa
	T	DN80 PN6.4Mpa
	N	DN80 PN10Mpa
	U	DN100 PN1.6MPa/4Mpa
W	DN100 PN6.4Mpa	
Flange Diaphragm Material	A	Stainless steel 316L
	B	Hastelloy C
	C	Tantalum
	E	PFA coating
	F	F46 coating
	G	Gold-plated
Flange Material	1	Stainless steel
Fill Fluid(High pressure side)	A	Silicone Oil
	B	High Temperature Silicone Oil
	C	Fluorine oil
Capillary Length	0	0m
	1	1m
	2	2m
	3	4m
	4	6m
	5	8m
Capillary protective sleeve	6	11m
	n	No Capillary
	A	Capillary with PVC sleeve
B	Capillary without PVC sleeve	

& 1199EFW INSERT TUBE



Process Connection	C	2" ANSI 150#
	D	2" ANSI 300#
	J	2" ANSI 600#
	E	3" ANSI 150#
	F	3" ANSI 300#
	K	3" ANSI 600#
	G	4" ANSI 150#
	H	4" ANSI 300#
	Q	DN50 PN1.6MPa/4Mpa
	R	DN50 PN6.4Mpa
	M	DN50 PN10Mpa
	S	DN80 PN1.6MPa/4Mpa
	T	DN80 PN6.4Mpa
	N	DN80 PN10Mpa
	U	DN100 PN1.6MPa/4Mpa
	W	DN100 PN6.4Mpa
Flange Diaphragm Material	A	Stainless steel 316L
	B	Hastelloy C
Flange Material	1	Stainless steel
Fill Fluid(High pressure side)	A	Silicone Oil
	B	High Temperature Silicone Oil
	C	Fluorine oil
Insert Tube Length	1	50mm
	2	100mm
	3	150mm
Capillary Length	0	0m
	1	1m
	2	2m
	3	4m
	4	6m
	5	8m
	6	11m
Capillary protective sleeve	n	No Capillary
	A	Capillary with PVC sleeve
	B	Capillary without PVC sleeve

2088/2088S Series Pressure Transmitter

& GENERAL

2088S pressure transmitter, 2088 pressure/liquid level transmitter is developed via international key component and advanced technology. Used to measure the pressure, level etc parameter of process fluid (liquid, gas, steam) continuously, then transfer to 4-20mA standard signal and can be combined with unit instrument or DCS system, PLC, constitute automatic control system, widely used for control and measurement in food, petroleum, chemical, metallurgy, electric power, beer, spinning, medicine etc various industries.

2088S



2088:



& TECHNICAL PARAMETER

Accuracy	0.2%FS, 0.5%FS
Stability	Better than 0.25%FS annually
Installation location influence	No impact
Temperature influence(-50~50°C)	Less $\pm 0.15\%/10^\circ\text{C}$
Working voltage	15V~30V DC
Ambient temperature	-20~85°C
Medium temperature	-40~120°C
Storage temperature	-40~110°C
Compensation temperature	-15~50°C
Wetted diaphragm	SS316L, ceramic
Process connection element	Stainless steel
Sealing element	fluororubber
Shell/housing	Plastic, molded cast aluminium, aluminium alloy
Protection	IP65



SP 21C1
 Range: -1...0~0.1...200bar
 Output: 4~20mADC
 Accuracy: $\pm 0.5\%$ FS
 M12x1 Connector



SP 21C
 Range: -1...0~0.1...1000bar
 Output: 4~20mADC
 Accuracy: $\pm 0.5\%$ FS
 Local display available



SP 21
 Range: -1...0~0.1...1000bar
 Output: 4~20mADC
 Accuracy: $\pm 0.5\%$ FS
 DIN43650 Connector



SP 21T High Temperature use
 Range: -1...0~0.01...1000bar
 Output: 4/20mA, 0/5V, RS485, etc
 Accuracy: $\pm 0.5\%$ FS
 Temperature up to 250°C



SP 21PC3
 G1/2 flush diaphragm
 Range: -1...0~0.1...350bar
 Output: 4~20mADC, etc
 Accuracy: $\pm 0.5\%$ FS
 DIN43650 Connector



SP 21PC4
 G1 flush diaphragm
 Range: -1...0~0.1...350bar
 Output: 4~20mADC, etc
 Accuracy: $\pm 0.5\%$ FS
 DIN43650 Connector



SP 21Y String Gauge Pressure Transmitter
 Range: 0~10...3000bar
 Output: 4/20mA, 0/5V, RS485, etc
 Accuracy: $\pm 0.5\%$ FS

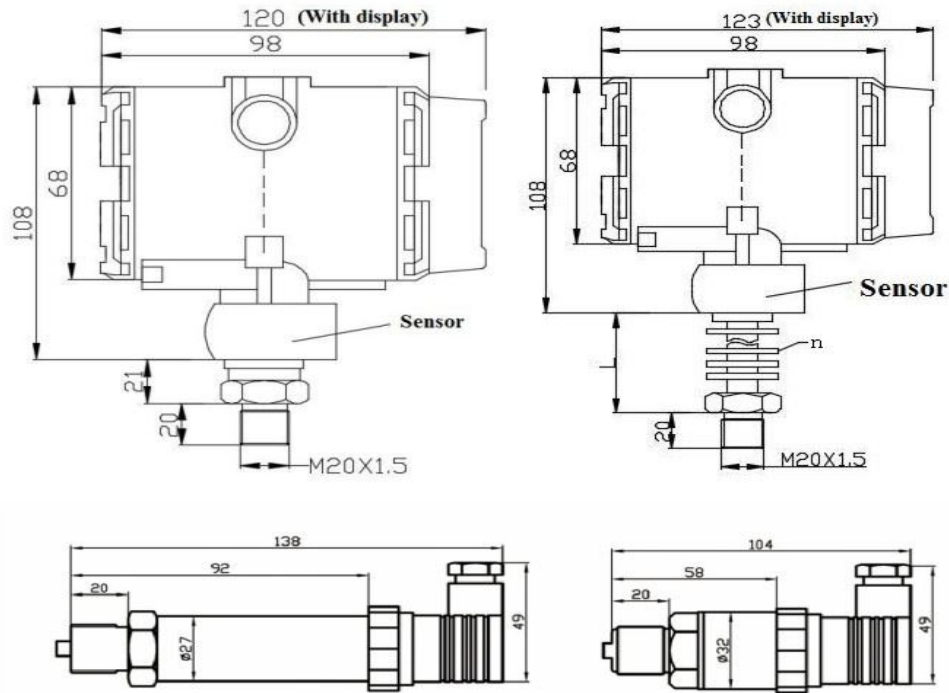


SP 91
 Differential Pressure Transmitter
 Range: 0~0.1...40bar
 Static pressure: 200bar
 Output: 4/20mA, 0/5V, RS485, etc
 Accuracy: $\pm 0.5\%$ FS



SP 21CP 50.5mm clamp
 Range: -1...0~0.1...100bar
 Output: 4~20mADC, etc.
 Accuracy: $\pm 0.5\%$ FS
 High temperature available

& DIMENSIONS



& 2088 SELECTION GUIDE

Item	Code	Specification
2088		Pressure Transmitter
Process Connection Material	1	Stainless Steel
Process Connection	R	G 1/2"
	M	NPT 1/2"
	Y	Customize
Sealing Material	IF	fluoro rubber (standard)
	IH	fluoro rubber applied to Sensors(Over 10MPa)
Output	2	4-20mA (two wire)
	3	customize
Shell material and structure	A	Aluminum shell PG16 cable sealingIP65
	B	Stainless steel shell cylinder structure
Sensor Type	1	Diffused Silicon Type
	2	Diffusion silicon anti-corrosion type
Explosion-proof Requirements	D	No Explosion-proof Required
	E	Explosion-proof type
Accuracy	2	0.20%
	5	0.50%

Important Note:

2088S Series ordering sheet ,please contact our sale for detailed information.

Pressure Sensor



& TECHNICAL PARAMETER

Code	Range
2E	0-0.125-1.5kPa
3E	0-1.3-7.5kPa
4E	0-6.2-37.4kPa
5E	0-31-186.8kPa
6E	0-117-690kPa
7E	0-345-2068kPa
8E	0-1170-6890kPa
9E	0-3480-20680kPa
0E	0-6890-41370kPa

& PERFORMANCE

Item	Parameters
Accuracy	±0.1%
Stability	±0.2% (12 months)
Temp range	-40°C ~ +140°C
Temp affect	zero error: ±0.25%/55°C
	range error: ±0.5%/55°C
Static pressure	DP 13.8MPa HP 25MPa DR 6.9MPa
Overpressure limit	AP GP 13.8MPa DR DP HP
Diaphragm material	316Lss Hastelloy C Tant alum

& RANGE

Code	Range (kpa)	DR	AP	GP	DP	HP
2	0~0.125~1.5	•		•		
3	0~1.3~7.5			•	•	
4	0~6.2~37.4		•	•	•	•
5	0~31~186.8		•	•	•	•
6	0~117~390		•	•	•	•
7	0~345~2068		•	•	•	•
8	0~1170~6890		•	•	•	
9	0~3480~20680			•		