

Remote Diaphragm Seal Level Transmitter

AT3051 RD Series

& GENERAL

AUTO AT3051RD series is a diaphragm seal product , which designed for the high-viscosity/ granular / high-temp/ high-corrosivity situation. RD series diaphragm seal assemblies 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 coatingcapillary
Tri-Clamp or union screw connection for food industry
Oil-free treatment& water-free treatment
Fast and dynamic response
Improved performance, increasedaccuracy and great stability



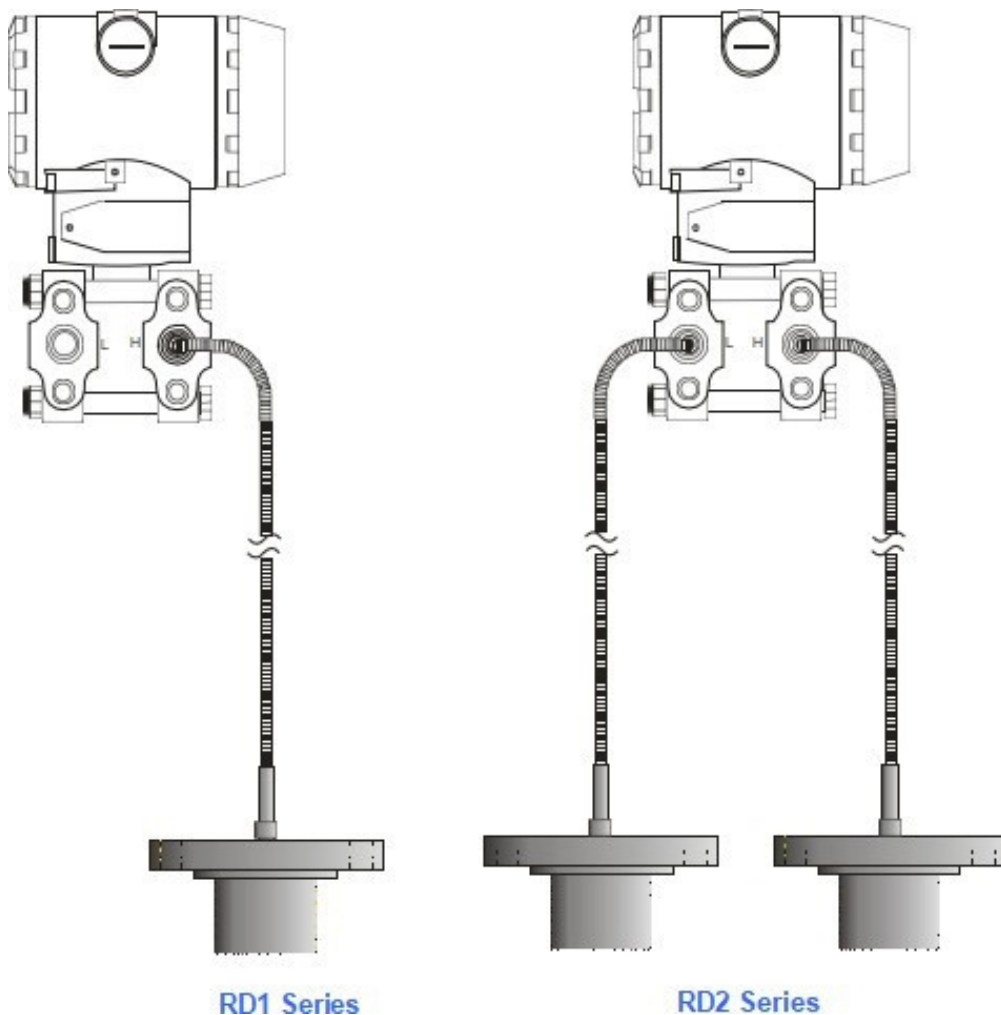
& STANDARD SPECIFICATION

Process Fluid	Liquid, Gas or Vapor	Installation Style	Direct-mount: RD One-sided Capillary: RD1 Two-sided Capillaries: RD2
Application	Liquid Level, Differential Pressure, Gauge Pressure, Absolute Pressure	Capillary Length	1.0 M ~ 10 M
Measuring Range	0 - 6.0 kPa ~ 0 - 40 kPa (Minimum) 0 - 4.0 MPa ~ 0 - 20.0 MPa (Maximum)	Max. Temperature	Direct-Mount : -20 to 80 °C Remote Diaphragm : -40 to 280 °C
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	Max. Pressure	8.0MPa
Flange Size	40mm, 50mm, 80mm, 100mm 1-1/2", 2", 3", 4"	Fill Fluid and Maximum	Silicone (Max. Temperature 130 °C)
Process Connection	Flange	Temperature	HT Silicone (Max. Temperature 280 °C) Fluorine (Max. Temperature 160 °C) Vegetable Oil (Max. Temperature 130 °C)
Flange Rating	JIS 10K / JIS 20K / JIS 40K ANSI 150# / ANSI 300# / ANSI 600# DIN PN10 / PN16 / PN25 / PN40 Tri Clamp (DIN32676 / ISO2852)	Ambient Temperature	+/-0.18% ~ +/-0.5% of span per 20 °C Effect
Extension Length	2", 3", 4"	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

Diaphragm Level Transmitter

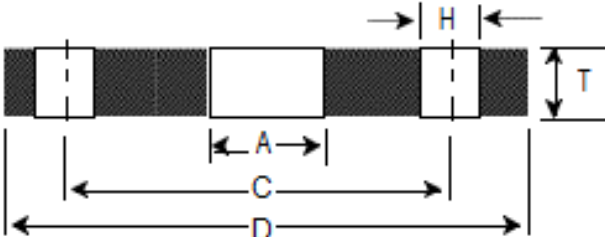
& MEASURING RANGE & MAX. STATIC PRESSURE

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	

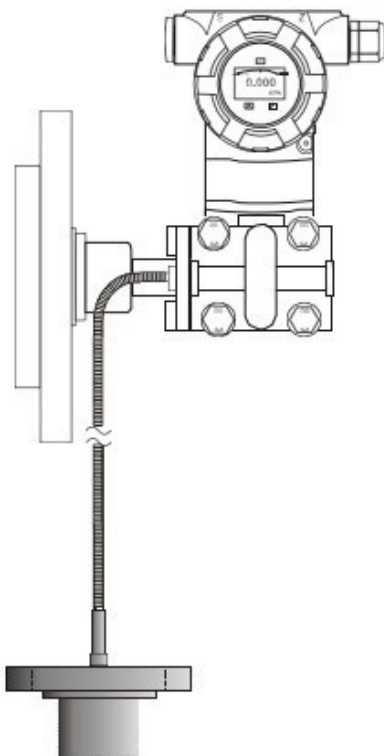


Diaphragm Level Transmitter

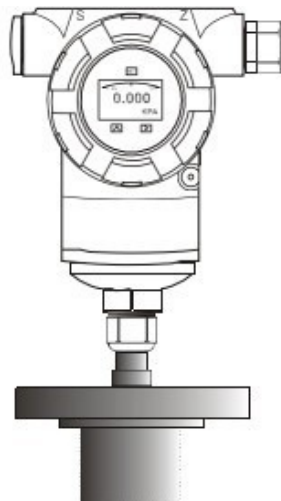
& FLANGE TABLES

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						

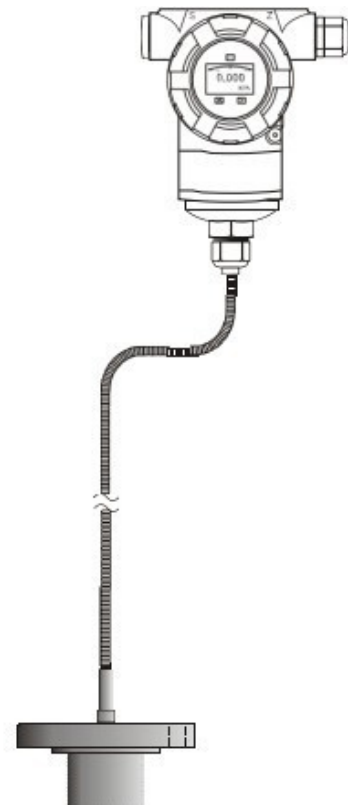
& DIMENSIONS



RD1 Series



RD Series



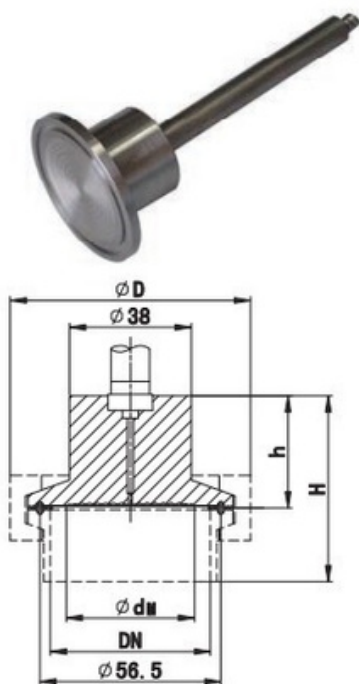
RD1 Series

Diaphragm Level Transmitter

& MODEL SELECTION GUIDE

Item	Code	Specification
AT3051RD		Smart Remote 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
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

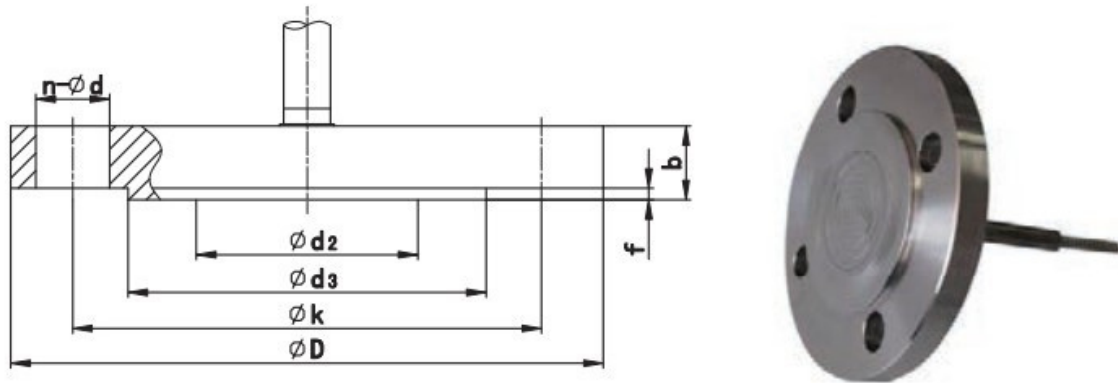
& 1199SCW TRI CLAMP TYPE



Process Connection	A	2"
	C	DN50
Flange Material	1	Stainless steel
Fill Fluid (High pressure side)	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

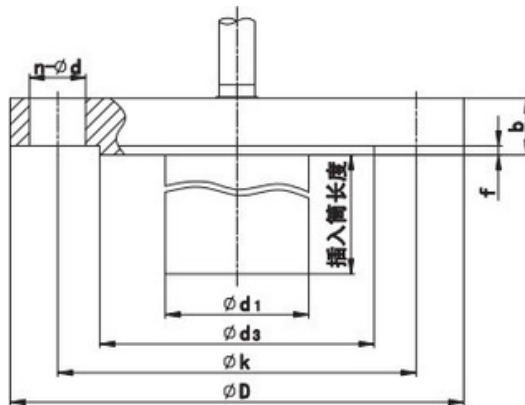
& 1199FFW FLAT FLANGE



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
	6	11m
Capillary protective sleeve	n	No Capillary
	A	Capillary with PVC sleeve
	B	Capillary without PVC sleeve

Diaphragm Level Transmitter

& 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