



AUTO GP DP AP

Remote Diaphragm Seal

RD Series

GENERAL

AUTO RD series is a diaphragm seal product, which designed for the high-viscosity/ granular/ high-temp./ high-corrosivity situation. D 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
- ❑ Vegetable oil can be used for fill fluid for food industry
- ❑ Extreme hot and cold temperature
- ❑ Stainless Steel with PPC coating capillary
- ❑ IDF 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

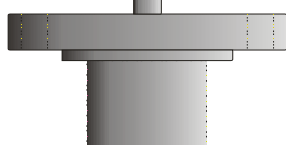
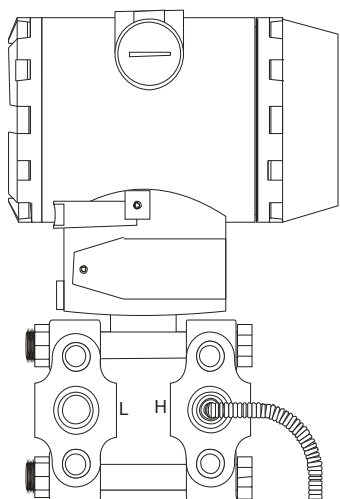
- Process Fluid : Liquid, Gas or Vapor
- Application: Liquid Level, Differential Pressure, Gauge Pressure, Absolute Pressure
- Material
 - Flange : Carbon steel
 - : Stainless Steel 304
 - : Stainless Steel 316
 - Diaphragms : Stainless Steel 316L
 - : Hastelloy B
 - : Hastelloy C
 - : Tantalum
 - : 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"
- Accuracy : +/-0.075% of Span
- Stability : +/-0.15% of URL for 2 years

- 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 Temperature : Silicone (Max. Temperature 130 °C)
- : 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

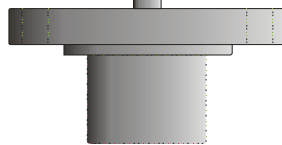
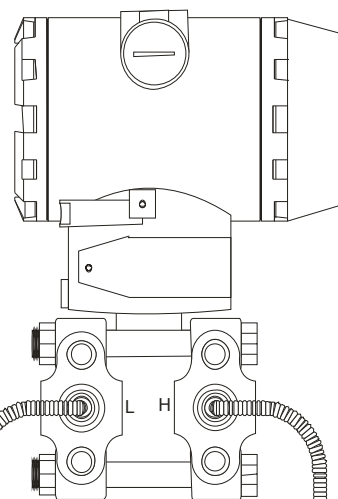


MEASURING RANGE & MAX. STATIC PRESSURE

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	

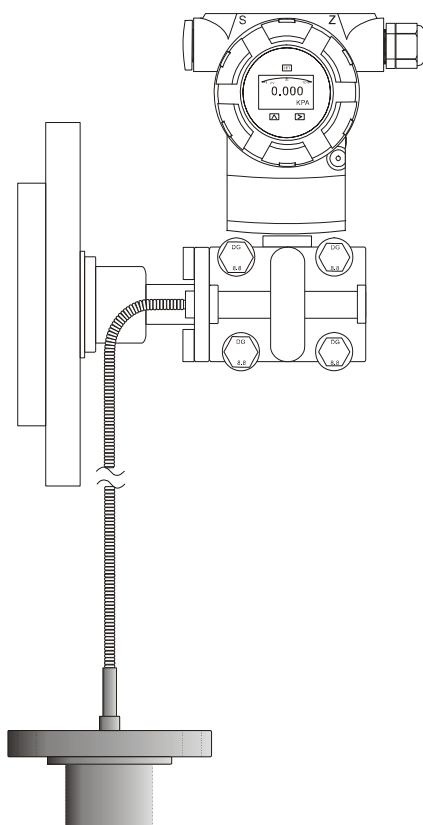


RD1 Series

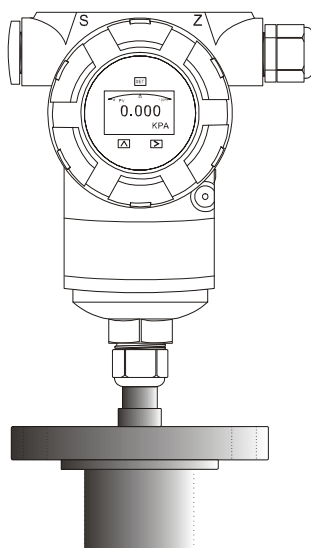


RD2 Series

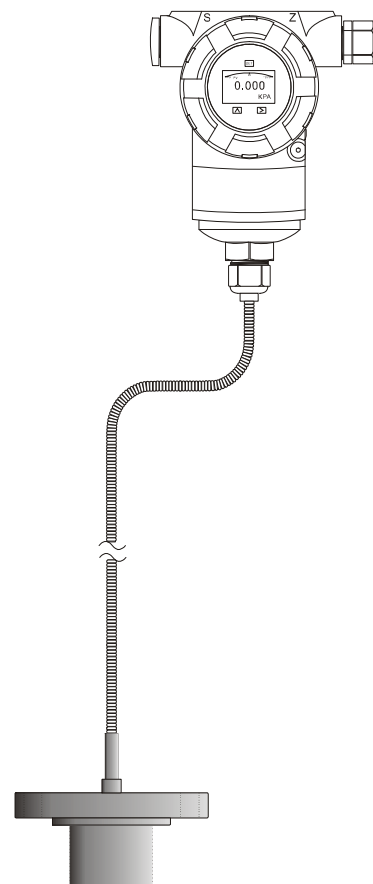
DIMENSIONS



RD1 Series



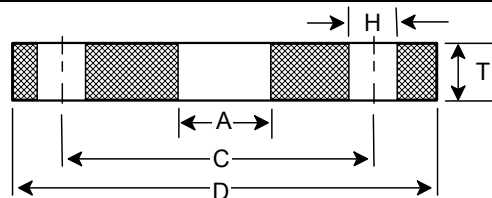
RD Series



RD1 Series

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						



Model SELECTION GUIDE

AT3051RD Series												
Example: AT3051RD2-A22B4-N05-W												
AT3051RD	X-	X	X	X	X	X	-X	XX	-X	Description		
Installation Style	RD-									Direct-mount		
	1-									One-sided Capillary Connects Remote Diaphragm Seal		
	2-									Two-sided Capillaries Connect Remote Diaphragm Seal (RD2 Only)		
Process Connection	1									PN10		
	2									PN16		
	3									PN25		
	4									PN40		
	A									ANSI 150#		
	B									ANSI 300#		
	J									JIS 10K		
	K									JIS 20K		
	L									JIS 40K		
	T									Tri-clamp (DIN32676 / ISO2852)		
	Z									Other		
Flange Size	1									1-1/2" (Diaphragm Diameter If Extended: 38mm)		
	2									2" (Diaphragm Diameter If Extended: 48mm)		
	3									3" (Diaphragm Diameter If Extended: 66mm)		
	4									4" (Diaphragm Diameter If Extended: 89mm)		
Diaphragm Extension Length	0									Flush Diaphragm		
	2									2" (50mm)		
	4									4" (100mm)		
	6									6" (150mm)		
Diaphragm Material	N									Stainless Steel 316L		
	B									Hastelloy B		
	C									Hastelloy C		
	T									Tantalum		
	P									PTFE-coated Tantalum Diaphragm (PTFE Thickness:40µm)		
	Z									Other		
Flange Material	N									Carbon Steel		
	4									Stainless Steel 304		
	6									Stainless Steel 316		
	Z									Other		
Fill Fluid	-N									Silicone (Max. Temperature 130 °C)		
	-S									HT Silicone (Max. Temperature 280 °C)		
	-F									Fluorine (Max. Temperature 160 °C)		
	-V									Vegetable Oil (Max. Temperature 130 °C)		
Capillary Length	NN									Direct-Mount		
	01-10									1 M ~ 10 M		
Option	- N									None		
	- W									Oil-free and Water-free Treatment		