

## Capacitance type Transmitter

## Direct-Mount / Remote Diaphragm Seal Model JCLT/JCRH/JCRL

### GENERAL

JCLT, JCRH/RL series is a diaphragm seal product combining JCLT, JCRH/H, JCRN/S serial transmitter, which designed for the high-viscosity/ granular/ high-temp./ high-corrosivity situation. D series diaphragm seal assembles BCST pressure/DP transmitter to form direct-mount / capillary-connections style.

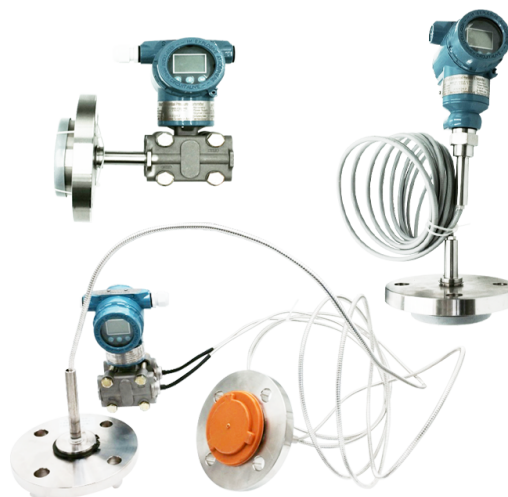
### FEATURES

- ❑ 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

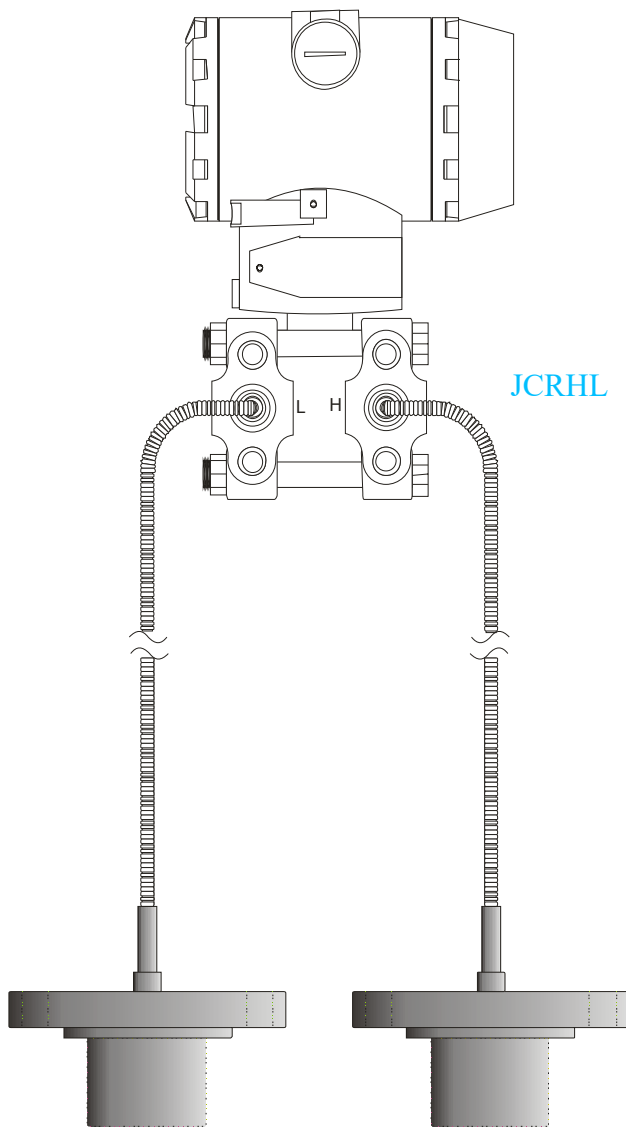
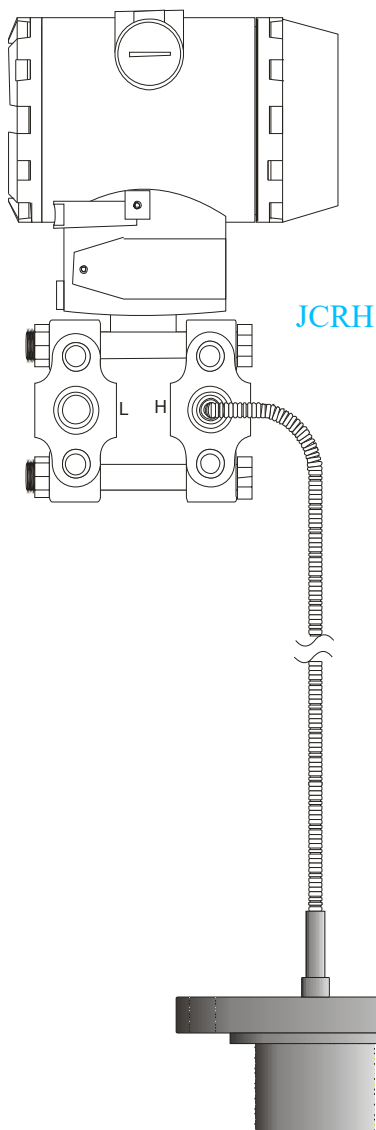
- Process Fluid : Liquid, Gas or Vapor
- Application : Liquid Level, Differential Pressure, Gauge Pressure, Absolute Pressure
- Material
  - Flange : Carbon steel
  - : Stainless Steel 304
  - : Stainless Steel 316
  - Diaphragms : Stainless Steel 316L
  - : Hastelloy B
  - : Hastelloy C
  - : Tantalum
  - : PTFE-coated Tantalum Diaphragm
  - Capillary : Stainless Steel with PPC 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 : +/-0.1% of Span
- Stability : +/-0.15% of URL for 2 years

- Installation Style
  - Direct-mount : JCLT only
  - One-sided Capillary : JCRS/JCRN/JCRH
  - Two-sided Capillaries : JCRHL only
- Capillary Length : 1.0 M ~ 10 M
- Max. Temperature
  - Direct-Mount : -20 to 80 °C
  - Remote Diaphragm : -40 to 280 °C
- Max. Pressure : 6.8 Mpa
- 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 Effect : +/-0.18% of span per 20 °C
- 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

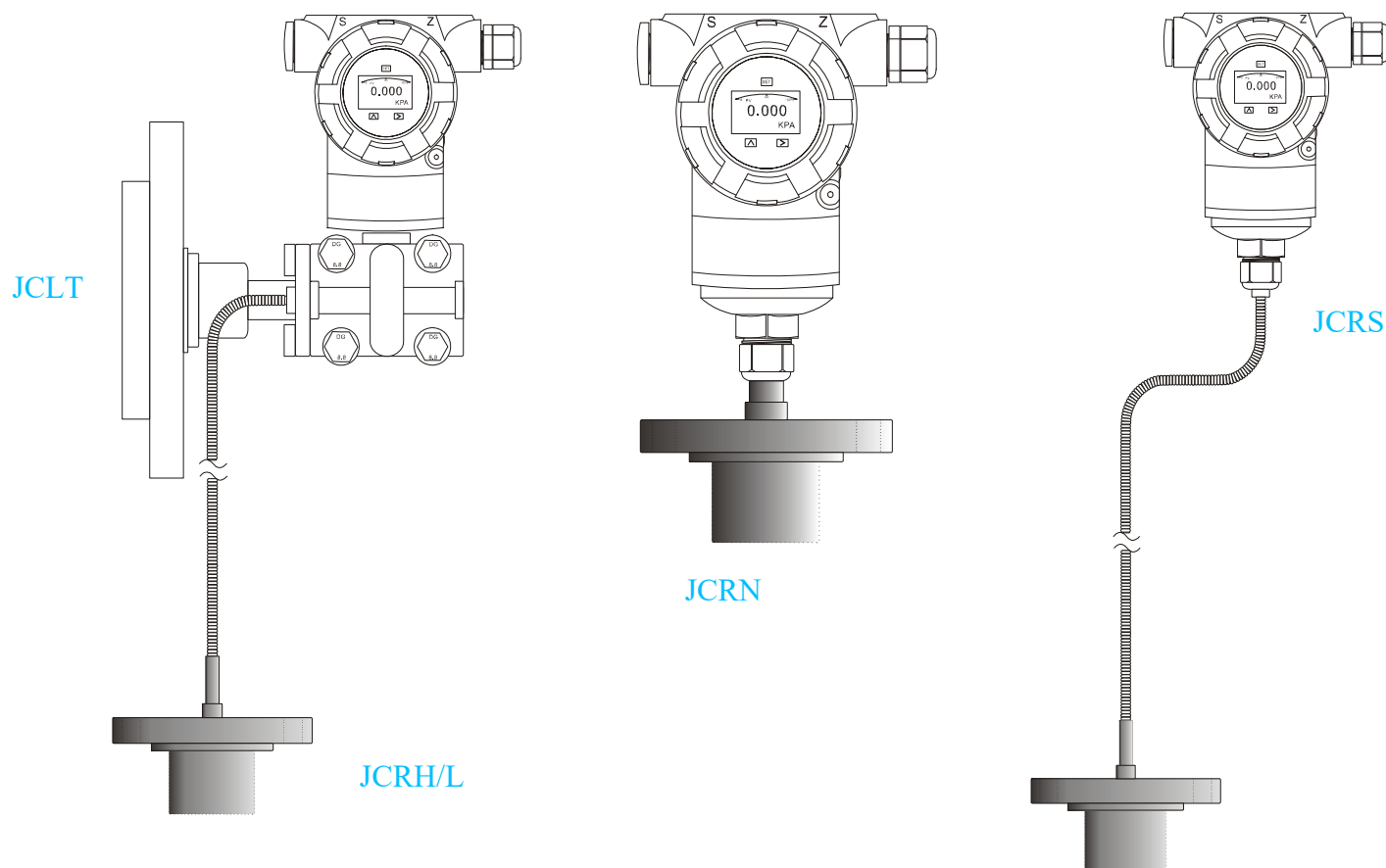


## MEASURING RANGE & MAX. STATIC PRESSURE

| Direct-Mount Diaphragm                             | Min. Range   | Max. Range    | Min. Range       | Max. Range       | Max. Static Pressure |
|----------------------------------------------------|--------------|---------------|------------------|------------------|----------------------|
| Pressure Transmitter<br>JCRN                       | 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<br>JCRS                       | 0 - 6.2 Kpa  | 0 - 6.8 Mpa   | 0 - 632 mmH2O    | 0 - 693 MH2O     | 6.8 Mpa              |
|                                                    | 0 - 62 mbar  | 0 - 68 Bar    | 0 - 24.9 InH2O   | 0 - 27299 InH2O  |                      |
|                                                    | 0 - 0.9 psi  | 0 - 986 psi   | 0 - 0.06 Kg/cm2  | 0 - 69.3 Kg/cm2  |                      |
| Differential Pressure<br>Transmitter<br>JCRH/JCRHL | 0 - 6.2 Kpa  | 0 - 6.8 Mpa   | 0 - 632 mmH2O    | 0 - 693 MH2O     | 6.8 Mpa              |
|                                                    | 0 - 62 mbar  | 0 - 68 Bar    | 0 - 24.9 InH2O   | 0 - 27299 InH2O  |                      |
|                                                    | 0 - 0.9 psi  | 0 - 986 psi   | 0 - 0.06 Kg/cm2  | 0 - 69.3 Kg/cm2  |                      |
| Level Transmitter<br>JCLT                          | 0 - 6.2 Kpa  | 0 - 6.8 Mpa   | 0 - 632 mmH2O    | 0 - 693 MH2O     | 6.8 Mpa              |
|                                                    | 0 - 62 mbar  | 0 - 68 Bar    | 0 - 24.9 InH2O   | 0 - 27299 InH2O  |                      |
|                                                    | 0 - 0.9 psi  | 0 - 986 psi   | 0 - 0.06 Kg/cm2  | 0 - 69.3 Kg/cm2  |                      |

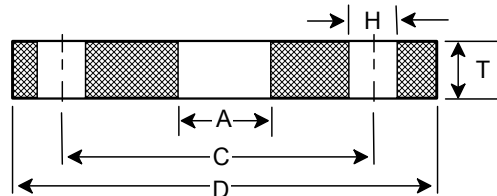


## DIMENSIONS



## 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

| Direct-Mount / Remote Diaphragm Seal Model |       |                |  |  |  |  |  |  |       |                                                                   |  |  |
|--------------------------------------------|-------|----------------|--|--|--|--|--|--|-------|-------------------------------------------------------------------|--|--|
| Example :JCLT-1-2-N-4-N-NN-N               |       |                |  |  |  |  |  |  |       |                                                                   |  |  |
|                                            |       |                |  |  |  |  |  |  |       | Description                                                       |  |  |
| Installation Style                         |       | JCLT/JCRN      |  |  |  |  |  |  |       | Direct-mount (JCLT Only)                                          |  |  |
|                                            |       | JCRH/JCRL/JCRS |  |  |  |  |  |  |       | One-sided Capillary Connects Remote Diaphragm Seal (JCLT, JCRN)   |  |  |
|                                            |       | JCRHL          |  |  |  |  |  |  |       | Two-sided Capillaries Connect Remote Diaphragm Seal (JCRH/L 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                                 |  |  |