# SS421 series Tri -Clamp fitting pressure transmitters



## Features

| CE            |                     |                                   |
|---------------|---------------------|-----------------------------------|
| CE conformity | Silicone oil filled | Stainless steel 316L wetted parts |

## **Technical data**

## Performance (EN 60770)

| Accuracy @ 25 °C                | ± 0.5% F.S. (incl. non-linearity, hysteresis and repeatability) |
|---------------------------------|---|
| Non-linearity BFSL (conformity) | ± 0.3% F.S.   |
| Hysteresis and repeatability    | ± 0.1% F.S.   |
| Response time                   | < 4 ms  |
| Pressure range                  | Minimum range: 0.1 bar  |
|                                 | Maximum range: 60 bar   |
|                                 | See more details in page 5 (part number chart)                  |
| Overload pressure               | 2.0 × F.S.  |
| Pressure type                   | vented gauge, sealed gauge, absolute                            |
| Long term stability             | ≤ 0.2% F.S./Year  |
| Temperature coefficient         | ± 0.03% F.S./°C   |

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#### **Electrical specifications**

| Output signal            | 4-20mA  | 0-10V    | 0-5V/0.5-4.5V | 0.5-4.5V | 10%-90%         |
|--------------------------|---------|----------|---------------|----------|-----------------|
| Input voltage            | 9-30Vdc | 12-30Vdc | 9-30Vdc       | 5Vdc     | 5V ratio-metric |
| Polarity protected       | yes     | yes      | yes           | yes      | yes             |
| Short-circuit protected  | yes     | yes      | yes           | yes      | yes             |
| Zero and span adjustment | No      | No       | No            | No       | No              |
| Surge protection         | yes     | yes      | yes           | yes      | yes             |

### Environmental conditions

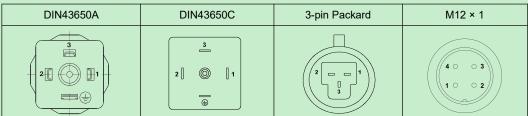
| Medium temp range      | -40 → +100 °C   | More options see page 6 |  |
|------------------------|---|-------------------------|--|
| Ambient temp range     | -20 $\rightarrow$ +80 °C (depending on electrical connection) |                         |  |
| Compensated temp range | $0 \rightarrow +70 \ ^{\circ}C$                               |                         |  |
| EMC - Emission         | EN 61000-6-3  |                         |  |
| EMC - Immunity         | EN 61000-6-1  |                         |  |
| Insulation resistance  | > 100 MΩ at 250 V   |                         |  |

### Mechanical characteristics

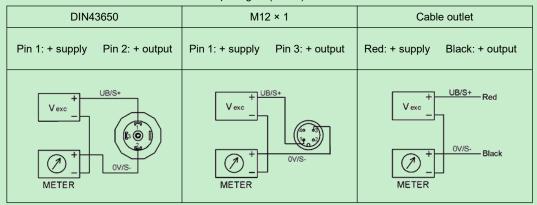
| Materials            | Diaphragm Stair   |  | nless steel 316L (typical) | More options see page 5         |  |
|----------------------|---|--|----------------------------|---------------------------------|--|
|                      | Housing Stair   |  | nless steel 304 (typical)  | Stainless steel 316L (optional) |  |
|                      | Pressure connector  |  | Stainless steel 304        |                                 |  |
|                      | Electrical connector  |  | Depending on the conn      | nding on the connector type     |  |
|                      | O-ring  |  | FKM / Viton                |                                 |  |
| Pressure connector   | 1.5" (50.5 mm), 2" (64 mm), 1"(38 mm)                                 |  |                            |                                 |  |
| Electrical connector | DIN43650A, DIN43650C, Cable outlet, M12 × 1, LED Display              |  |                            |                                 |  |
| Weight               | 225-500g (depending on pressure connection and electrical connection) |  |                            |                                 |  |
| Sealing rating       | IP 65 (fulfilled together with mating connector)                      |  |                            |                                 |  |

# 421 series Tri -Clamp fitting pressure transmitters

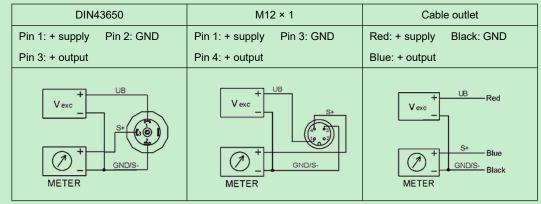
#### Electrical connector type



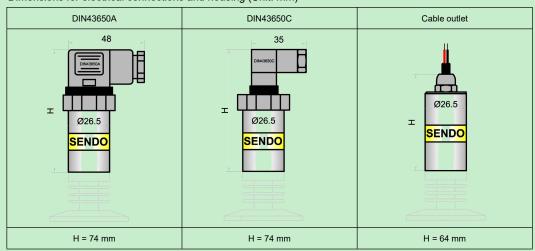
### Electrical connections for 4-20mA current output signal (2 wire)



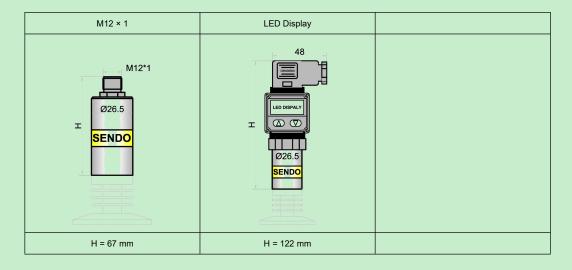
## Electrical connections for 0-10V, 0-5V, 0.5-4.5V voltage output signal (3 wire)



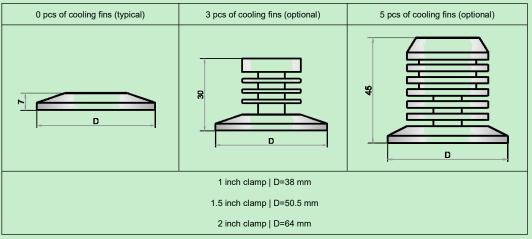
#### series Tri -Clamp fitting pressure transmitters 421







### Dimensions for pressure connections (Unit: mm)



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# SS421 series Tri -Clamp fitting pressure transmitters

## Part number chart (How to order)

## PART NUMBER REQUIRED: SS421.PL.01.A.01.A.06 (EXAMPLE)

| NA(-10)   NB(-0.70)   NC(-0.50)   ND(-0.350)   NE(-0.20)   NF(-0.10)   PA(00.1)     PB(00.2)   PC(00.35)   PD(00.5)   PE(00.7)   PF(010)   PG(010)   PH(02)     PI(02.5)   PJ(04)   PK(06)   PL(010)   PM(016)   PN(025)   PO(040)     PP(060)   CA(-10.6)   CB(-115)   CC(-13)   CD(-15)   CE(-19)     CF(-115)   CG(-124)   1Z(Other pressure range or unit is on request)   0'     01(Gauge)   02(Absolute)   3   Electrical connection   A     A(DIN43650A)   B(Cable Outlet)   C(M12 × 1)   D(LED Display)   E(DIN43650C)   F(Plug type)     4   Pressure connection   0'   0'   01(1.5"=50.5mm clamp fitting)   02(2"=60mm clamp fitting)   03(1"=38mm clamp fitting)   4Z(Other connection is on request)   A     5   Signal & supply   A   A     A(4-20mA & 9-30Vdc)   B(0.10V & 12-30Vdc)   C(0-5V & 9-30Vdc)   D(0.5-4.5V & 9-30Vdc)     E(0.5-4.5V & 5Vdc)   F(0.5-4.5V & 5Vdc) |   |   |    |  |  |  |  |
|--|---|---|----|--|--|--|--|
| PB(00.2) PC(00.35) PD(00.5) PE(00.7) PF(01) PG(01.6) PH(02)   PI(02.5) PJ(04) PK(06) PL(010) PM(016) PN(025) PO(040)   PP(060) CA(-10.6) CB(-11.5) CC(-13) CD(-15) CE(-19)   CF(-115) CG(-124) 1Z(Other pressure range or unit is on request) 0'   01(Gauge) 02(Absolute) 3 Electrical connection A   A(DIN43650A) B(Cable Outlet) C(M12 × 1) D(LED Display) E(DIN43650C) F(Plug type)   4 Pressure connection 0' 0' 0' 0' 0'   01(1.5"=50.5mm clamp fitting) 02(2"=60mm clamp fitting) 03(1"=38mm clamp fitting) 4Z(Other connection is on request) 0'   5 Signal & supply A A 4(4-20mA & 9-30Vdc) B(0-10V & 12-30Vdc) C(0-5V & 9-30Vdc) D(0.5-4.5V & 9-30Vdc) E(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc) E(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc) E(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc) E(0.5-4.5V & 5Vdc) E(0.5-4.5V & 5Vdc) E(0.5-4.5V & 5Vdc) E(0.5-4.                     | 1 | Pressure range(bar)   | PL |  |  |  |  |
| PI(02.5) PJ(04) PK(06) PL(010) PM(016) PN(025) PO(040)   PP(060) CA(-10.6) CB(-11.5) CC(-13) CD(-15) CE(-19)   CF(-115) CG(-124) 1Z(Other pressure range or unit is on request) Or   01(Gauge) 02(Absolute) 01   3 Electrical connection A   A(DIN43650A) B(Cable Outlet) C(M12 × 1) D(LED Display) E(DIN43650C) F(Plug type)   4 Pressure connection 0r   01(1.5"=50.5mm clamp fitting) 02(2"=60mm clamp fitting) 03(1"=38mm clamp fitting)   4Z(Other connection is on request) A   5 Signal & supply A   A(4-20mA & 9-30Vdc) B(0-10V & 12-30Vdc) C(0-5V & 9-30Vdc) D(0.5-4.5V & 9-30Vdc)   E(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc ratiometric) D(0.5-4.5V & 9-30Vdc) E(0.5-4.5V & 5Vdc)   |   | NA(-10) NB(-0.70) NC(-0.50) ND(-0.350) NE(-0.20) NF(-0.10) PA(00.1)               |    |  |  |  |  |
| PP(060) CA(-10.6) CB(-11.5) CC(-13) CD(-15) CE(-19)   CF(-115) CG(-124) 1Z(Other pressure range or unit is on request) 0'   2 Pressure type 0'   01(Gauge) 02(Absolute) 0'   3 Electrical connection A   A(DIN43650A) B(Cable Outlet) C(M12 × 1) D(LED Display) E(DIN43650C) F(Plug type)   4 Pressure connection 0'   01(1.5"=50.5mm clamp fitting) 02(2"=60mm clamp fitting) 03(1"=38mm clamp fitting)   4Z(Other connection is on request) 0' A   5 Signal & supply A   A(4-20mA & 9-30Vdc) B(0-10V & 12-30Vdc) C(0-5V & 9-30Vdc) D(0.5-4.5V & 9-30Vdc)   E(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc ratiometric) D(0.5-4.5V & 9-30Vdc) E(0.5-4.5V & 5Vdc)  |   | PB(00.2) PC(00.35) PD(00.5) PE(00.7) PF(01) PG(01.6) PH(02)                       |    |  |  |  |  |
| CF(-115) CG(-124) 1Z(Other pressure range or unit is on request)   2 Pressure type 0'   01(Gauge) 02(Absolute) 0'   3 Electrical connection A   A(DIN43650A) B(Cable Outlet) C(M12 × 1) D(LED Display) E(DIN43650C) F(Plug type)   4 Pressure connection 0'   01(1.5"=50.5mm clamp fitting) 02(2"=60mm clamp fitting) 03(1"=38mm clamp fitting)   4Z(Other connection is on request) 4Z A   5 Signal & supply A   A(4-20mA & 9-30Vdc) B(0-10V & 12-30Vdc) C(0-5V & 9-30Vdc) D(0.5-4.5V & 9-30Vdc)   E(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc ratiometric) D D  |   | PI(02.5) PJ(04) PK(06) PL(010) PM(016) PN(025) PO(040)                            |    |  |  |  |  |
| 2   Pressure type   0'     01(Gauge)   02(Absolute)   A     3   Electrical connection   A     A(DIN43650A)   B(Cable Outlet)   C(M12 × 1)   D(LED Display)   E(DIN43650C)   F(Plug type)     4   Pressure connection   0'   0'   0'     01(1.5"=50.5mm clamp fitting)   02(2"=60mm clamp fitting)   03(1"=38mm clamp fitting)   4Z(Other connection is on request)     5   Signal & supply   A     A(4-20mA & 9-30Vdc)   B(0-10V & 12-30Vdc)   C(0-5V & 9-30Vdc)   D(0.5-4.5V & 9-30Vdc)     E(0.5-4.5V & 5Vdc)   F(0.5-4.5V & 5Vdc ratiometric)   D   D   |   | PP(060) CA(-10.6) CB(-11.5) CC(-13) CD(-15) CE(-19)                               |    |  |  |  |  |
| 01(Gauge)   02(Absolute)     3   Electrical connection   A     A(DIN43650A)   B(Cable Outlet)   C(M12 × 1)   D(LED Display)   E(DIN43650C)   F(Plug type)     4   Pressure connection   0*     01(1.5"=50.5mm clamp fitting)   02(2"=60mm clamp fitting)   03(1"=38mm clamp fitting)   0*     4Z(Other connection is on request)   5   Signal & supply   A     54(4-20mA & 9-30Vdc)   B(0-10V & 12-30Vdc)   C(0-5V & 9-30Vdc)   D(0.5-4.5V & 9-30Vdc)     E(0.5-4.5V & 5Vdc)   F(0.5-4.5V & 5Vdc ratiometric)   D   D  |   | CF(-115) CG(-124) 1Z(Other pressure range or unit is on request)                  |    |  |  |  |  |
| 3 Electrical connection A   A(DIN43650A) B(Cable Outlet) C(M12 × 1) D(LED Display) E(DIN43650C) F(Plug type)   4 Pressure connection 0'   01(1.5"=50.5mm clamp fitting) 02(2"=60mm clamp fitting) 03(1"=38mm clamp fitting)   4Z(Other connection is on request) 4Z   5 Signal & supply A   A(4-20mA & 9-30Vdc) B(0-10V & 12-30Vdc) C(0-5V & 9-30Vdc) D(0.5-4.5V & 9-30Vdc)   E(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc ratiometric) F(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc ratiometric)  | 2 | Pressure type   | 01 |  |  |  |  |
| A(DIN43650A) B(Cable Outlet) C(M12 × 1) D(LED Display) E(DIN43650C) F(Plug type)   4 Pressure connection 0*   01(1.5"=50.5mm clamp fitting) 02(2"=60mm clamp fitting) 03(1"=38mm clamp fitting)   4Z(Other connection is on request) 4Z   5 Signal & supply A   A(4-20mA & 9-30Vdc) B(0-10V & 12-30Vdc) C(0-5V & 9-30Vdc) D(0.5-4.5V & 9-30Vdc)   E(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc ratiometric) F(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc)  |   | 01(Gauge) 02(Absolute)  |    |  |  |  |  |
| 4   Pressure connection   0'     01(1.5"=50.5mm clamp fitting)   02(2"=60mm clamp fitting)   03(1"=38mm clamp fitting)     4Z(Other connection is on request)   4Z(Other connection is on request)   A     5   Signal & supply   A     A(4-20mA & 9-30Vdc)   B(0-10V & 12-30Vdc)   C(0-5V & 9-30Vdc)   D(0.5-4.5V & 9-30Vdc)     E(0.5-4.5V & 5Vdc)   F(0.5-4.5V & 5Vdc ratiometric)   F(0.5-4.5V & 5Vdc)   F(0.5-4.5V & 5Vdc)   | 3 | Electrical connection A   |    |  |  |  |  |
| 01(1.5"=50.5mm clamp fitting)   02(2"=60mm clamp fitting)   03(1"=38mm clamp fitting)     4Z(Other connection is on request)   4Z(Other connection is on request)   A     5   Signal & supply   A     A(4-20mA & 9-30Vdc)   B(0-10V & 12-30Vdc)   C(0-5V & 9-30Vdc)   D(0.5-4.5V & 9-30Vdc)     E(0.5-4.5V & 5Vdc)   F(0.5-4.5V & 5Vdc ratiometric)   F(0.5-4.5V & 5Vdc)   F(0.5-4.5V & 5Vdc)  |   | A(DIN43650A) B(Cable Outlet) C(M12 × 1) D(LED Display) E(DIN43650C) F(Plug type)  |    |  |  |  |  |
| 4Z(Other connection is on request) A   5 Signal & supply A   A(4-20mA & 9-30Vdc) B(0-10V & 12-30Vdc) C(0-5V & 9-30Vdc) D(0.5-4.5V & 9-30Vdc)   E(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc ratiometric) F(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc)   | 4 | Pressure connection 01  |    |  |  |  |  |
| 5   Signal & supply   A     A(4-20mA & 9-30Vdc)   B(0-10V & 12-30Vdc)   C(0-5V & 9-30Vdc)   D(0.5-4.5V & 9-30Vdc)     E(0.5-4.5V & 5Vdc)   F(0.5-4.5V & 5Vdc)   F(0.5-4.5V & 5Vdc)   F(0.5-4.5V & 5Vdc)  |   | 01(1.5"=50.5mm clamp fitting) 02(2"=60mm clamp fitting) 03(1"=38mm clamp fitting) |    |  |  |  |  |
| A(4-20mA & 9-30Vdc) B(0-10V & 12-30Vdc) C(0-5V & 9-30Vdc) D(0.5-4.5V & 9-30Vdc)   E(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc)   |   | 4Z(Other connection is on request)  |    |  |  |  |  |
| E(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc ratiometric)  | 5 | Signal & supply A   |    |  |  |  |  |
|  |   | A(4-20mA & 9-30Vdc) B(0-10V & 12-30Vdc) C(0-5V & 9-30Vdc) D(0.5-4.5V & 9-30Vdc)   |    |  |  |  |  |
| 6 Cable length 06  |   | E(0.5-4.5V & 5Vdc) F(0.5-4.5V & 5Vdc ratiometric)                                 |    |  |  |  |  |
|  | 6 | Cable length  | 06 |  |  |  |  |
| 01(1m) 02(2m) 03(3m) 04(4m) 05(5m) 06(None) 6Z(Other length is on request)   |   | 01(1m) 02(2m) 03(3m) 04(4m) 05(5m) 06(None) 6Z(Other length is on request)        |    |  |  |  |  |

## Contact us

| Company                                | Ningbo Sendo Electronic Technology CO., LTD                                      |                         |                             |  |
|--|--|-------------------------|-----------------------------|--|
| Email                                  | sales@sende  | sales@sendo-sensor.com  |                             |  |
| Email                                  | cain.chen@sendo-sensor.com   |                         |                             |  |
| Factory                                | No 15, Yongxing 2nd Rd, Chengbei Industrial Park, Huizhou District, 245900 China |                         |                             |  |
| Office                                 | Building. 1#1108, Wante business center, Hi-Tech, 315040 China                   |                         |                             |  |
| Website                                | http:/www.pressuresensorsuppliers.com  |                         | http://www.sendo-sensor.com |  |
| Skype: sendosensor WeChat: chenjie4884 |  | WeChat: chenjie4884     | WhatsApp: +8613616574884    |  |
| Tel: 0086-0574-27725960                |  | Fax: 0086-0574-27725970 | Phone: 0086-13616574884     |  |

\*Specifications subject to change without notice, the latest date sheet please contact: sales@sendo-sensor.com



WARNING: DO NOT USE THIS PRODUCT AS SAFETY OR EMERGENCY STOP DEVICE OR IN ANY OTHER APPLICATION WHERE FAILURE OF THE PRODUCT COULD RESULT IN PERSONAL INJURY OR EVEN DEATH.