‘INTELLIGENT’ PRESSURE AND LEVEL TRANSMITTERS
For all industries

Series 4000

- All Stainless Housing
- Easy Calibration without Test Pressure by Unique Control Button and Display
- Accuracy: 0.075%
- Turn Down 20:1
- Graphic Display with Bargraph and Backlight
- Display: Pressure, Temperature and Bargraph
- Active Temperature Compensation
- Development According to SIL2
- Various Linearisation Functions
- All Industrial Process Connections
- Option: HART® Protocol

Description

The series 4000 is a complete line of ‘High-end’ Intelligent pressure and level transmitters with a Stainless steel electronics housing. The calibration / programming can be done very easy without test pressure by using the Unique One Touch programming button together with the Graphic display with backlight. The graphic display can indicate a number of chosen engineering units including the process temperature and the actual value in a bargraph. Damping times can be adjusted and a 4-20 mA current simulation can be performed. Various tank shapes for different tank linearisations are available. The series 4000 is fully temperature compensated and over 40 different process connections with flush diaphragm are available. Options include HART® protocol and ATEX Ex ia approval (pending).

HART® is a registered trademark of the HART Communication Foundation.

Stainless steel electronics housing
Series 4000

Specifications

Accuracy: 0.075% of adjusted span
Ranges: 0-100 mBar to 0 – 100 bar
Turn down: 20:1
Adjustment: by One pushbutton and local display, without testpressure
Output: 4-20 mA (option: HART® Protocol)
Supply: 12 – 36 Vdc
Electrical connection: M20 x 1.5 (2x)
Protection: IP66 (option: IP68)
Process temperature: -20°C to 80°C (option: 100°C)
Ambiant temperature: -20°C to 70°C
Material wetted parts: AISI 316 (option: Hastelloy C)
Electronic housing: AISI 304 (option: AISI 316)
Process connections: See ordercode at page 4

Graphic display with bargraph and backlight
Multi language: English, Dutch, German, French and Russian

Pressure Spike protection
All pressure transmitters from series 4000 (SAN) with a range > 1 bar are carried out with one or two internal pressure dampers to protect the sensor against pressure spikes.

Unique ‘One Touch Programming button’
The series 4000 (SAN) is carried out with a unique control button. This ‘single button’ can be used for all programming / calibration functions.

Adjustable points

P101 Zero adjustment (ZERO / 4 mA)
P102 Span adjustment (SPAN / 20 mA)
P103 Cancel mounting position effect
P104 Adjustment pressure unit
P105 Output 4-20 mA* or 20-4 mA
P106 Damping adjustment (0 - 25 sec.)
P107 Language: English*, Dutch, German, French or Russian
P108 Safety adjustment, Alarm and backlight
P109 Read out on display:
  Current, pressure unit, temp. or %.
P110 Current simulation (4-20 mA)
P111 Linearisation (various tankshapes)
P112 Internal warnings
P113 Adjustment overview

*= Factory setting

With unique OneTouch Programming Button

360° Revolving display

With unique OneTouch Programming Button

Code W33

Pressure Spike Protection

Code S
Specifications

Accuracy: 0.075% of adjusted span
Ranges: 0-30 mBar to 0 – 100 bar
Turn down: 20:1
Adjustment: by One pushbutton and local display, without testpressure
Output: 4-20 mA (option: HART® Protocol)
Supply: 12 – 36 Vdc
Electrical connection: M20 x 1.5 (2x)
Protection: IP66 (option: IP68)
Process temperature: -20°C to 100°C (145°C / 45 min)
Ambiant temperature: -20°C to 70°C
Material wetted parts: AISI 316 (option: Hastelloy C or Tantalum)
Electronic housing: AISI 304 (option: AISI 316)
Process connections: More than 40 ! See ordercode on page 4

Separate electronics

Series 4000-SAN is also available in a separated version.

Type: 4000-SAN-Cable(…m)-range-…
Always specify the cable length, range and process connection. (See ordercode at page 4).

Easy Tank linearisation

Various tankshapes are already pre-programmed in the series 4000(SAN) which ensures a very easy tank linearisation.
The standard tank shapes are:
- Horizontal tank with flat end  
- Horizontal tank with parabolic end 
- Vertical tank with a spherical bottom  
- Vertical tank with a conical bottom

In addition, a free linearization curve of up to 50 points is adjustable.
### SERIES 4000

**Ordering code standard transmitter:** 4000 -

**Ordering code with cable:** 4000-Cable (.....m) -

<table>
<thead>
<tr>
<th>Adjustable span range:</th>
<th>Max. overpressure (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 0,1 to 0 - 1,2 bar</td>
<td>10</td>
</tr>
<tr>
<td>0 - 0,5 to 0 - 10 bar</td>
<td>20</td>
</tr>
<tr>
<td>0 - 5 to 0 - 100 bar</td>
<td>30</td>
</tr>
</tbody>
</table>

**PROCESS CONNECTIONS:**
- Weld-on nipple diam. 33 mm. (flush diaphragm / pulp & paper)
- G1" (1" BSP) threaded connection (flush diaphragm)
- M44 x 1,25 (PMC, Rosemount, Vega)
- PASVE 1" connection (Valmet/Satron)
- Other process connections, specify X code

**OPTIONS:**
- Transparent cover, display functions as local indicator.
- Vacuum Ranges (Specify Relative or absolute) Compound ranges available (example -1 / +1 bar)
- Intrinsically safe: ATEX II 1 G Ex ia IIC T4 (Pending)
- HART® Protocol. HART 7 (= Factory setting), (HART 5 also selectable)

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### SERIES 4000-SAN

**Ordering code standard transmitter:** 4000-SAN -

**Ordering code with cable:** 4000-SAN-Cable (.....m) -

<table>
<thead>
<tr>
<th>Adjustable span range:</th>
<th>Max. overpressure (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 0,05 to 0 - 1,2 bar</td>
<td>10</td>
</tr>
<tr>
<td>0 - 0,5 to 0 - 10 bar</td>
<td>20</td>
</tr>
<tr>
<td>0 - 5 to 0 - 100 bar</td>
<td>30</td>
</tr>
</tbody>
</table>

**PROCESS CONNECTIONS:**
- Milk coupling DIN 11851, DN 25 (only ranges 30 and 40), DN 40, DN 50 (all ranges)
- Hygienic weld-on nipple diam. 85 mm (tank mounting) or diam. 48 mm (pipe mounting) specify W85 or W48
- Tri-clamp 1/2", 2" or 3" (specify)
- Flange: DN 25, 40, 50 or 80 (DIN) or 1 1/2", 2" or 3" (ANSI) (specify size)
- Universal adapter E+H
- 1/2" BSP threaded connection
- Varivent connection (GEA)
- 2" IDF coupling
- DRD
- SMS 1/2" or 2" (specify size)

**OPTIONS:**
- Transparent cover, display functions as local indicator.
- Vacuum Ranges (Specify Relative or absolute) Compound ranges available (example -1 / +1 bar)
- High Temperature version with cooling fins. Always specify Process Temperature
- Intrinsically safe: ATEX II 1 G Ex ia IIC T4 (pending)
- HART® Protocol. HART 7 (= Factory setting), (HART 5 also selectable)