A Higher Level of Performance

Data Sheet

Series 4000

Pressure and Level Transmitters

For more information, please visit >
www.hawkmeasure.com

Description

“Intelligent” Pressure and Level Transmitters (Series 4000)

The series 4000 is a complete line of ‘High-end’ Intelligent pressure and level transmitters with a **Stainless steel electronic 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 tankshapes 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).

Features

- 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

Specifications

Accuracy :	0.075% of adjusted span
Ranges :	0-100 mBar to 0 – 100 bar
Turn down :	20:1
Adjustment : display,	**by One push button and local without test pressure**
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 order code at page 4

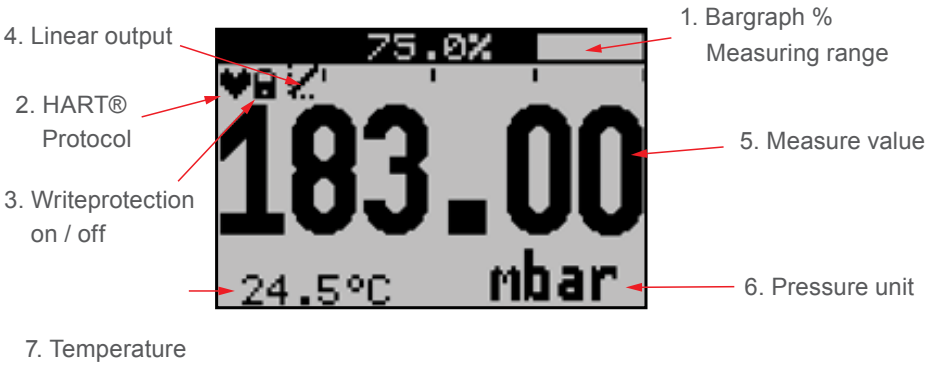
Adjustable points

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

Graphic display with bargraph and backlight

Multi language: English, Dutch, German, French and Russian



Code S

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

The series 4000 (SAN) is carried out with a unique control button. This 'single button' can be used for all programming / calibration functions.

360° Revolving display


Code W33

Specifications

Accuracy :	0.075% of adjusted span
Ranges :	0-30 mBar to 0 – 100 bar
Turn down :	20:1
Adjustment :	**by One push button and local display, without test pressure**
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 order code on page 4

Code M Code W Code L

Separate electronics

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

Type: **4000-SAN-Cable(…m)-range-…**

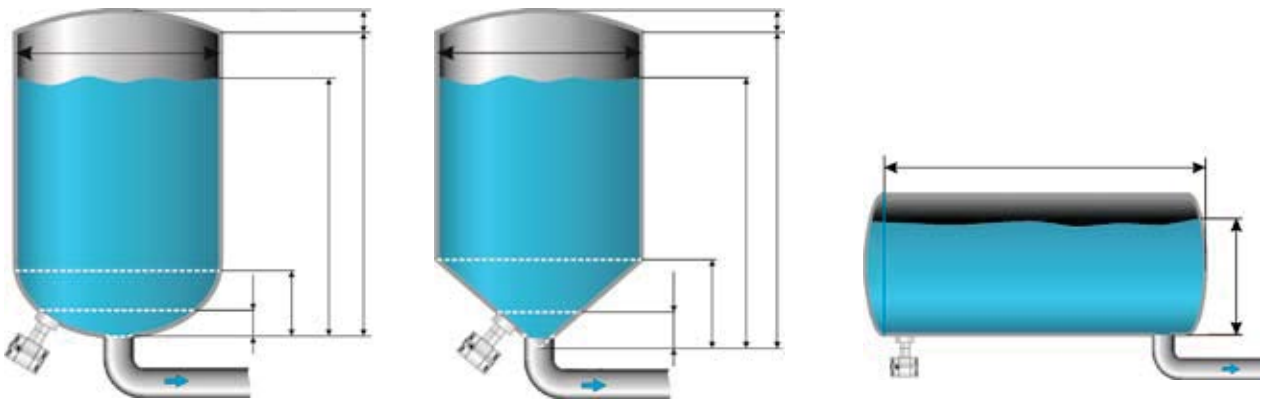
Always specify the cable length, range and process connection. (See order code at page 5).

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:

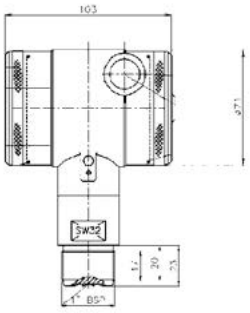
- Horizontal tank with flat end
- Horizontal tank with parabolic end
- Vertical tank with a spherical bottom'
- Vertical tank with a conical bottom

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



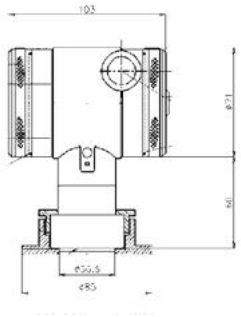
Ordering codes Series 4000

SERIES 4000	Ordering g code standard transmitter: **4000 -**						
(info on page 2)	Ordering code with cable: **4000-Cable (....m) -**						
Adjustable span range:	**Max. overpressure (bar)**						
0 - 0,1 to 0 - 1,2 bar	10	20					
0 - 0,5 to 0 - 10 bar	50	30					
0 - 5 to 0 - 100 bar	200	40					
PROCESS CONNECTIONS:							
Weld-on nipple diam. 33 mm. (flush diaphragm / pulp & paper)			W				
G1" (1"BSP) threaded connection (flush diaphragm)			S				
M44 x 1,25 (PMC, Rosemount, Vega)			X2				
PASVE 1" connection (Valmet/Satron)			X12				
Other process connections, specify X code			X..				
OPTIONS:							
Transparent cover, display functions as local indicator							
Vacuum Ranges (Specify Relative or absolute) Compound ranges available (example -1 / +1 bar)				I			
Vacuum Ranges (Specify Relative or absolute) Compound ranges available (example -1 / +1 bar)					V		
Intrinsically safe: ATEX II 1 G Ex ia IIC T4 (Pending)						Ex	
HART® Protocol. HART 7 (= Factory setting), (HART 5 also selectable)							H



4000 - Code S

Graphic display with backlight and unique One Touch Programming button



4000-SAN - code W85

Ordering codes Series 4000 SAN

SERIES 4000 SAN	Ordering code standard transmitter: **4000 - SAN -**						
(info on page 2)	Ordering code with cable: **4000-SAN- Cable (....m) -**						
Adjustable span range:	**Max. overpressure (bar)**						
0 - 0,05 to 0 - 1,2 bar	10	20					
0 - 0,5 to 0 - 10 bar	50	30					
0 - 5 to 0 - 100 bar	200	40					
PROCESS CONNECTIONS:							
Milk coupling DIN 11851, DN 25 (only ranges 30 and 40), DN 40, DN 50 (all ranges))			M..				
Hygenic weld-on nipple diam. 85 mm (tank mounting) or diam. 48 mm (pipe mounting) specify W85 or W48			W..				
Tri-clamp 11/2", 2" or 3" (specify)			L..				
Flange: DN 25, 40, 50 or 80 (DIN) or 1 1/2", 2" or 3" (ANSI) (specify size)			F..				
Universal adapter E+H			X1				
$1^1/_2$ " BSP threaded connection			X3				
Varivent connection (GEA)			X4				
2" IDF coupling			X5				
DRD			X7				
SMS 11/2" or 2" (specify size)			X9				
OPTIONS:							
Transparent cover, display functions as local indicator.				I			
Vacuum Ranges (Specify Relative or absolute) Compound ranges available (example -1 / +1 bar)					V		
High Temperature version with cooling fins. Always specify Process Temperature					HT		
Intrinsically safe: ATEX Ex II 1 G Ex ia IIC T4 (pending)						Ex	
HART® Protocol. HART 7 (= Factory setting), (HART 5 also selectable)							H


HAWK

HAWK, Since 1988

Hawk Measurement Systems Pty Ltd (HAWK) was established in 1988. It's founding members saw the universal requirement of various industries requiring improved process control and efficiency in their operations.

We Can Help

HAWK understands the difficulties customers face when seeking accurate level measurement. Every application is different, involving a multitude of environmental factors. This is where HAWK excels. Our aim is to ensure that customers feel comfortable with our technology, and are provided with long term and reliable solutions. We believe that a combination of application and product expertise, as well as forward thinking and proactive support policies are the foundation of successful customer-supplier relationships.

Progressive Technical Support

HAWK believes that the future of the Level Measurement Industry revolves around the quality of pre and post sales - support. Our aim is for all sales & support staff to be product experts, and more importantly application experts making our customers applications as efficient and consistent as possible.

Knowledge Sharing

HAWK believes that knowledge sharing is key to creating long term relationships. Empowering our customers and our worldwide distribution network, whilst being available at all times to lend a helping hand, is the perfect recipe for long term solutions and relationships. HAWK openly extends an invitation to share our 25 years of level measurement experience, and ensure that your day to day processes are efficient, understood, and always working.

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Additional product warranty and application guarantees upon request.
Technical data subject to change without notice.

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