

## PS55-CS55 Pressure Transmitters Silver Series Process and Cleanline

### FEATURES

- All stainless steel design
- 0,2 % accuracy of adjusted span (opt. 0,1 %)
- Strong flush mounted diaphragm
- Active temperature compensation
- Optional HART® protocol with 4-20 mA / 2 wire output
- Digital local display with several options
- Easy local adjustments using 3 pushbuttons
- HART DTM available for Microsoft Windows® OS
- Wide selection of electrical & process connections
- IP66/68 Ingress rating

### TYPICAL USES

- Food and beverage industry
- Pharma industry
- Pulp and paper
- Chemical and petrochemical plants



Silver series  
PS55-CS55



### PERFORMANCE SPECIFICATIONS

Reference Temperature:	21 °C ±2 °C (70 °F ±2 °F)
Accuracy:	± 0.2 % of adjusted span optional: 0.1 %
Stability:	≤ ±0.08 % of span / year
Adjustable Pressure	0.04 to 80 bar
Span:	Check table "Standard pressure range" on page 2
Pressure Type:	Gauge, Absolute Vacuum and Compound on request

### ENVIRONMENTAL SPECIFICATIONS

Thermal Coefficients:	0.15% / 10 K $((T_{amb} - T_{ref})/10) * 0.15%$ 0.3% / 10 K for $T_{amb} < 0 °C$
Temperature Limits:	Check table "Temperature Limits" on page 2
Humidity:	0-100 % R.H. (non-condensing)

### SOFTWARE SPECIFICATIONS

Driver and Software:	Microsoft Windows® 7 or higher
Interfaces:	PACTware™
Response Time (Output):	700 ms

### PHYSICAL SPECIFICATION

Pressure:	Max. Overpressure: See table 1 on page 2 Proof: 75% of Max. Overpressure
Process Connection Size:	Check coding table "Process Connection" on page 3/4
Weather Protection:	Ingress Protection IP66 (optimal IP68)
Shock and Vibration Effects:	4.0 - 13.2 Hz constant displacement-amplitude 1.0 mm 13.2 - 100.0 Hz constant acceleration - 0.7 g 1 Sweep up with 1 oct/min

### KEY BENEFITS

- Intelligent transmitters with adjustable span and high accuracy
- Minimum temperature effect
- Several setting and adjustment options

### ELECTRICAL SPECIFICATIONS

Output:	4-20 mA (2-wire configuration)
Electrical Connection:	PG9 Cable gland for more see "Ordering Code" at page 5
Power Supply:	Standard: 12 - 36 Vdc HART®: 17 - 36 Vdc min. 250 Ω

### WETTED COMPONENTS

Diaphragm:	Stainless steel 316L (1.4404) optional: St. st. 316L (1.4404) gold plated optional: Hastelloy C-276 (2.4819)
Flange:	Stainless steel 316L (1.4404) optional: Hastelloy C-276 (2.4819) inlay optional: St. st. 316L (1.4404) Tantalum coated inlay

### NON-WETTED COMPONENTS

Housing:	Stainless steel 304 (1.4401) optional: Stainless steel 316L (1.4404)
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## PS55-CS55 Pressure Transmitters Silver Series Process and Cleanline

### ON-FIELD ADJUSTMENTS

- + Zero adjustment (4 mA)
- + Span adjustment (20 mA)
- + Cancel mounting position effect
- + Switch pressure units
- + Output current display
  - 4-20 mA
  - 20-4 mA (Reverse output)
- + Adjustable damping (0 to 25 sec)
- + Operational settings (protection, display, HART® versions)
- + Read out on display:
  - Current (4 - 20 mA)
  - Pressure unit (Conversion table)
  - Percentages
  - Temperature
- + Burst mode settings
- + Data and information overview

### TEMPERATURE LIMITS

Ambient/Storage: -20 °C to 70 °C (-4 °F to 160 °F)

Process: -20 °C to 80 °C (-4 °F to 180 °F)  
optional up to 100 °C (210 °F)

Active Temp. compensation on process side:

<b>PS55</b>	
Standard:	0 °C to 80 °C (30 °F to 180 °F) optional up to 100 °C (210 °F)
Low Temp option:	-20 °C to +70 °C (- 4 °F to 160 °F)
<b>CS55</b>	
Standard:	0 °C to 100 °C (30 °F to 210 °F)
Low Temp option:	-20 °C to +70 °C (- 4 °F to 160 °F)
High Temp option:	100 °C to 200 °C (210 °F to 390 °F)
Ultra-High Temp option:	150 °C to 280 °C (300 °F to 540 °F)

### STANDARD PRESSURE RANGE

RANGE	CODE	ADJUSTABLE SPAN RANGES	MAX. OVERPRESSURE	NOTE
0 ... 0.1 bar	0P1BR	0 ... 40 mbar to 0 ... 100 mbar	3 bar	not available for PS55
0 ... 0.4 bar	0P4BR	0 ... 0.1 bar to 0 ... 0.4 bar	6.4 bar	
0 ... 1.6 bar	1P6BR	0 ... 0.4 bar to 0 ... 1.6 bar	10.5 bar	
0 ... 4 bar	4BR	0 ... 1 bar to 0 ... 4 bar	16 bar	
0 ... 10 bar	10BR	0 ... 2 bar to 0 ... 10 bar	30 bar	
0 ... 24 bar	24BR	0 ... 6 bar to 0 ... 24 bar	100 bar	
0 ... 100 bar	100BR	0 ... 20 bar to 0 ... 100 bar	200 bar	



## PS55-CS55 Pressure Transmitters Silver Series Process and Cleanline

ORDERING CODE		EXAMPLE:	CS55	010	20	150	RF	FN	HA	KV1	G	10BR	S	XC3
<b>Model</b>														
PS55	Process pressure transmitter silver series													
CS55	Cleanline pressure transmitter silver series (sanitary)	CS55												
<b>Accuracy</b>														
010	0,1% of adjusted span			010										
020	0,2% of adjusted span													
<b>Connection size</b>														
<b>Process series PS55</b>														
<b>Threaded;</b> see category "Reducing Nipple" for more connection options														
MG4F	G ½" (½" BSP) with flush diaphragm (available for 1.6, 4, 10, 24 and 80 bar range)													
MG6F	G 1" (1" BSP) with flush diaphragm													
08F	1" NPT with flush diaphragm (available for 4, 10, 24 and 80 bar range)													
<b>Weld-on Nipple</b>														
W33	Ø 33 mm connection nipple													
<b>Manufacturer compatibility</b>														
X2	M44x1,25 threaded lock ring (matches the 1-1/2" PMC and Rosemount)													
X10	Valcom process connection, ET 13													
X12	Satron / Valmet PASVE 1" BSP connection													
X37	Valcom process connection, ET 15													
<b>Cleanline series CS55</b>														
<b>Threaded;</b> see category "Reducing Nipple" for more connection options														
85	G 1-½" with flush diaphragm													
71	G 2" with flush diaphragm													
67	1-½" NPT with flush diaphragm													
IC20	2" IDF coupling nut													
SU85	SMS-Union 1-½"													
SU71	SMS-Union 2"													
<b>Milk coupling</b>														
MD25	Milk coupling DN25 (DIN 11851) (available for 4, 10, 24 and 80 bar range)													
MD40	Milk coupling DN40 (DIN 11851)													
MD50	Milk coupling DN50 (DIN 11851)													
<b>Tri-Clamp</b>														
S15	1-½" Tri-Clamp (DIN 32676) (available for ranges > 0,1 bar)													
S20	2" Tri-Clamp (DIN 32676)													
S30	3" Tri-Clamp (DIN 32676)													
<b>Weld-on Nipple</b>														
W62	Ø62 mm connection hygienic nipple													
W85	Ø85 mm connection hygienic nipple													
<b>Flange according ASME B16.5 or EN1092-1</b>														
10	Flange size 1" (ASME)													
15	Flange size 1-½" (ASME)													
20	Flange size 2" (ASME)				20									
30	Flange size 3" (ASME)													
DN25	Flange size DN25 (EN)													
DN40	Flange size DN40 (EN)													
DN50	Flange size DN50 (EN)													
DN80	Flange size DN80 (EN)													

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## PS55-CS55 Pressure Transmitters Silver Series Process and Cleanline

**ORDERING CODE**      **EXAMPLE:** CS55 010 20 150 RF FN HA KV1 G 10BR S XC3

**Connection size**
**Cleanline series CS55**
**Manufacturer compatibility**

X1	Universal adapter E+H flush
X4	Varivent (baseplate from GEA, Tuchenhagen DN50 up to DN125)
X6	APV baseplate
X7	DRD flange
X13	VEGA "LA" DN40
X25	Anderson

**Flange Pressure Rating**

150	Flange rating 150 lbs (ASME)	150
300	Flange rating 300 lbs (ASME)	
600	Flange rating 600 lbs (ASME)	
900	Flange rating 900 lbs (ASME)	
PN10	Flange rating PN 10 (EN)	
PN16	Flange rating PN 16 (EN)	
PN25	Flange rating PN 25 (EN)	
PN40	Flange rating PN 40 (EN)	

**Flange**

RF	Raised face (ASME)	RF
B1	Raised face form B (EN)	

**Diaphragm Size**

FN	Standard diaphragm diameter Ø 35 mm	FN
FE	Increased diaphragm diameter Ø 76,1 mm	

**Output Signal**

42	4 - 20 mA	
HA	4 - 20 mA with HART <sup>®</sup> protocol	HA

**Electrical Connection**

KV1	PG9 cable gland (standard)	KV1
KV2	PG 11 cable gland	
KV3	PG 13,5 cable gland	
EW	M12, 4-pin in stainless steel 316 (1.4401)	
HM	Hirschmann connector plug	
JL	1/2 NPT Female conduit	
JM	M20x1,5 Female	

**Pressure Type**

G	Gauge pressure (standard)	G
A	Sensor connected to reference chamber for absolute pressure	
V	Compound or vacuum ranges	

**Pressure Ranges - Coding example only, see standard ranges on page 2**

10BR	10 bar
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**Wetted Parts**

S	Diaphragm in Stainless steel 316L (1.4404) (standard)	S
H	Diaphragm in Hastelloy <sup>®</sup> C-276 (2.4819)	
H1	Wetted parts (diaphragm and flange) in Hastelloy <sup>®</sup> C-276 (2.4819)	
U	Wetted parts (diaphragm and flange) with Tantalum coating	
W	Diaphragm in Stainless steel 316L (1.4404) and with Gold coating	

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**PS55-CS55 Pressure Transmitters Silver Series  
 Process and Cleanline**
**ORDERING CODE**      **EXAMPLE:**    **CS55**    **010**    **20**    **150**    **RF**    **FG**    **HA**    **KV1**    **G**    **10BR**    **S**    **XC3**

Options (If choosing an option(s) must include a "X")

X\_

**Temperature Option**

- HT      High temperature execution with integrated cooling tower (Temperature range: 100 - 200 °C)  
 UT      Ultra High temperature execution with integrated cooling tower (Temperature range: 150 - 280 °C)  
 LT      Low temperature execution (Temperature range: < 0 °C)

**Reducing Nipple**
**Process series PS55**

- RN1      G ¼" BSP Male  
 RN2      G ¼" BSP Female and G ½" BSP Male  
 RN3      G ½" BSP Male  
 RN4      G ½" BSP Female  
 RN5      G ½" BSP Male gauge connection DIN 16288  
 RN6      G ¾" BSP Male  
 RN7      ¼" NPT Male  
 RN8      ½" NPT Male  
 RN9      ½" NPT Female  
 RN10     ½" NPT Male and ¼" NPT Female  
 RN11     ¾" NPT Male  
 RN12     M20x1,5

**Process series CS55**

- RN13     ½" BSP Male  
 RN14     1" BSP Male  
 RN15     ½" NPT Male  
 RN16     ½" NPT Female  
 RNO      Others

**Case**

- YW      Enclosure stainless steel 316L (1.4404)  
 IP68     Ingress protection IP68 (only available for standard electrical connection PG9; venting cable required)

**Electrical Cable**

- without cable (standard)  
 EC      With electrical cable

**Electrical Cable Length**

- 0,5 ... 100    Cable length in 0,5 m steps

**Digital Indicator**

- Blind cover (same material as enclosure; standard)  
 DG      Transparent polycarbonate cover

**Remote Sensor**

- RE      Remote Sensor connected with cable to enclosure and separated electronics

**Remote Sensor cable length**

- 3 ... 100     Remote cable length in 0,5 m steps  
 CL      Calibration according customer requirements

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**PS55-CS55 Pressure Transmitters Silver Series  
 Process and Cleanline**
**ORDERING CODE**      **EXAMPLE:**   CS55   010   20   150   RF   FG   HA   KV1   G   10BR   S   XC3

Options (If choosing an option(s) must include a "X")

**Mounting**

- FW      Wall mounting bracket, material 304 (1.4301)
- FW1     Wall mounting bracket, material 316L (1.4404)
- TM      2" pipe mounting bracket, material 304 (1.4301)
- TM1     2" pipe mounting bracket, material 316L (1.4404)

**Cleaning**

- 6B      Cleaned for gaseous Oxygen or other strong oxidizing agents
- YF      Cleaned silicone free

**Marking/Tagging**

- NH      Stainless steel tag, wired to case
- NH1     Extra large stainless steel tag, wired to case
- NN      Paper tag, bonded to enclosure

**Testing/Certificates**

- CD2     Material test report according to EN 10204 / 2.2
- C3      Material report according to EN 10204 / 3.1
- C4      Individual calibration chart
- CL      Calibration according customer requirements

X\_

C3



**PS55-CS55 Pressure Transmitters Silver Series  
Process and Cleanline**

**SILVER SERIES - PROCESS  
DIMENSIONS IN MM [INCH]**

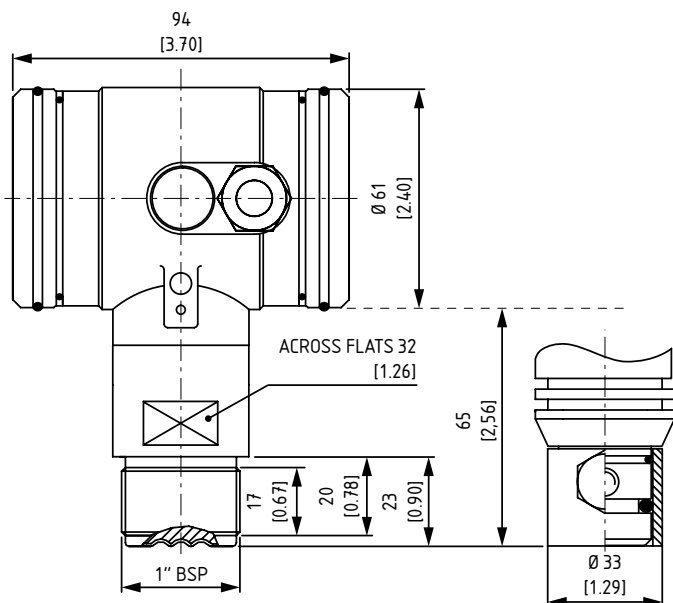
For reference only, consult Ashcroft for specific dimensional drawings

**THREADED**

Code: MG6F  
G 1" with flush diaphragm

**WELD-ON NIPPLE**

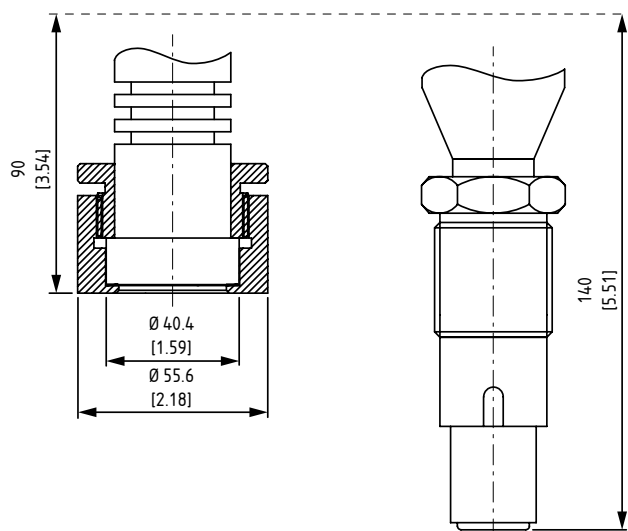
Code: W33  
Ø 33 mm connection nipple



**MANUFACTURER COMPATIBILITY**

Code: X2 (left)  
M44x1,25 threaded lock ring  
(1-1/2" PMC and Rosemount)

Code: X12 (right)  
PASVE 1" BSP  
(Satron/Valmet)



**PS55-CS55 Pressure Transmitters Silver Series  
Process and Cleanline**

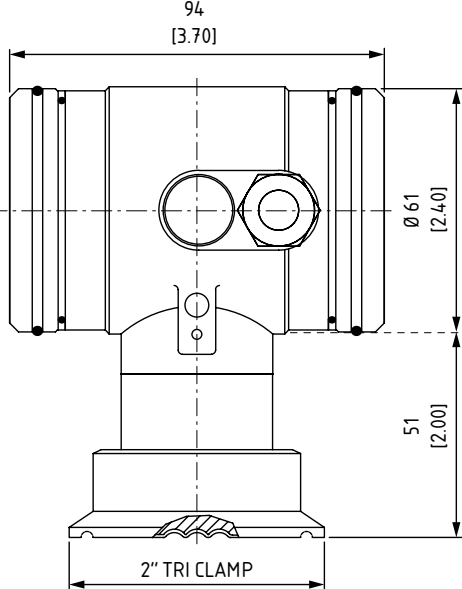
**SILVER SERIES - CLEANLINE  
DIMENSIONS IN MM [INCH]**

For reference only, consult Ashcroft for specific dimensional drawings

**TRI-CLAMP**

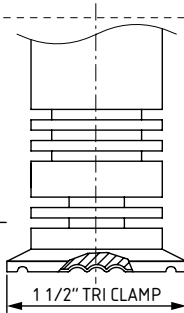
Code: S20

Tri-Clamp 2"



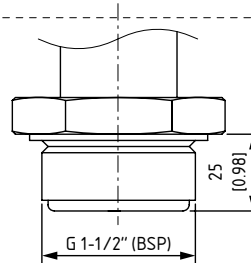
**TRI-CLAMP**

Code: S15  
Tri-Clamp 1-1/2" with  
cooling tower



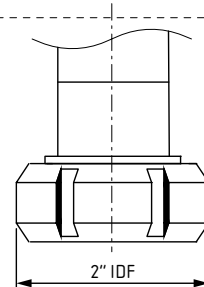
**FLUSH DIAPHRAGM**

Code: 85  
G 1-1/2" threaded with flush  
diaphragm



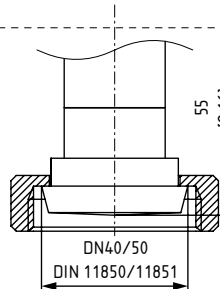
**IDF**

Code: IC20  
2" IDF coupling nut



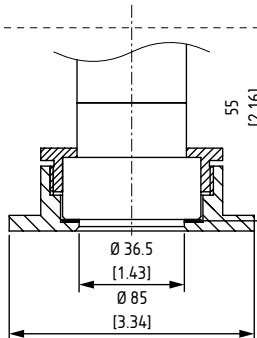
**MILK-COUPLING**

Code: MD25, MD40 or  
MD50



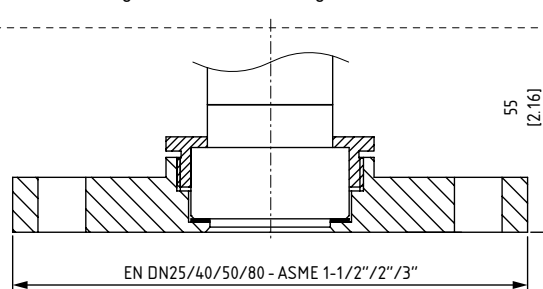
**WELD-ON NIPPLE**

Code: W85  
Ø 85 Hygenic nipple connection



**FLANGED**

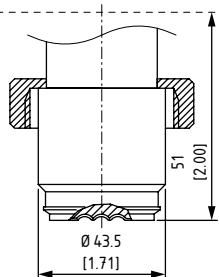
Code for EN 1092-1: DN25, DN40, DN50 or DN80  
Code for ASME B16.5: 15, 20 or 30  
Flanged connection according standard



**MANUFACTURER COMPATIBILITY**

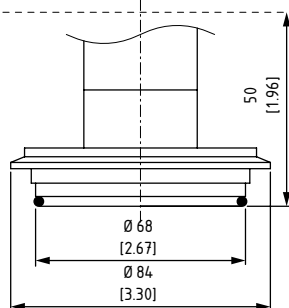
Code: X1

Universal flush diaphragm  
(Endress & Hauser)



Code: X4

GEA Tuchenhagen Varivent®  
DN50 (up to DN125)



Code: X13

VEGA "LA" DN40

