

PG55-CG55 Pressure Transmitters Gold Series Process and Cleanline

FEATURES

- All stainless steel design
- 0.1% accuracy of adjusted span
- 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
- Approval for use in hazardous area
- 3A and EHEDG approved connections available

TYPICAL USES

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

PERFORMANCE SPECIFICATIONS

Reference Temperature:	21 °C ±2 °C (70 °F ±2 °F)
Accuracy:	± 0.1 % of adjusted span
Stability:	≤ ±0.05 % of span / year
Adjustable Pressure Span:	0.1 to 100 bar 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):	800 ms
On-field Adjustment:	Check table "On-field Adjustments" on page 2

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.



II 1 G Ex ia IIC T4 Ga
II 2 D Ex ib IIIC T100°C Db
II 3 G Ex ec IIC T4 Gc



Gold series
PG55-CG55



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 4
Power Supply:	Standard: 12 - 36 Vdc 12 - 26.5 Vdc (ATEX) HART®: 17 - 36 Vdc min. 250 Ω 17 - 26.5 Vdc (ATEX) min. 250 Ω
Non Sparking Area: (Nominal values)	U = 12...26.5 Vdc I = 4...20 mA P = 0.28 W
Intrinsically safe: (max. values)	U _{max} = 26.5 Vdc I _{max} = 110 mA P _{max} = 0.9 W (Linear source) L _{max} = 1.4 mH C _{max} = 63 nF

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 316 (1.4404)
----------	--

Data Sheet

PG55-CG55 Pressure Transmitters Gold Series Process and Cleanline

ON-FIELD ADJUSTMENTS WITH KEYPAD

- + 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
- + Linearization:
 - Horizontal tank
 - Vertical tank (cone, spherical or truncated bottom)
 - Customer specific linearization
- + Burst mode settings
- + Data and information overview

TEMPERATURE LIMITS

Ambient/Storage: -20 °C to 70 °C (-4 °F to 158 °F)

Process: -20 °C to 80 °C (-4 °F to 176 °F)
optional up to 100 °C (210 °F)

Active Temp. compensation on process side:

PG55
 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)

CG55
 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
Process transmitter PG55	0 ... 0,4 bar	0P4BR	0 ... 0,1 bar to 0 ... 0,4 bar	6,4 bar
	0 ... 1,2 bar	1P2BR	0 ... 0,3 bar to 0 ... 1,2 bar	10,5 bar
	0 ... 10 bar	10BR	0 ... 1 bar to 0 ... 10 bar	30 bar
	0 ... 30 bar	30BR	0 ... 5 bar to 0 ... 30 bar	100 bar
	0 ... 100 bar	100BR	0 ... 20 bar to 0 ... 100 bar	200 bar
Cleanline transmitter CG55	0 ... 0,4 bar	0P4BR	0 ... 0,04 bar to 0 ... 0,4 bar	6,4 bar
	0 ... 1,2 bar	1P2BR	0 ... 0,1 bar to 0 ... 1,2 bar	10,5 bar
	0 ... 10 bar	10BR	0 ... 1 bar to 0 ... 10 bar	30 bar
	0 ... 30 bar	30BR	0 ... 5 bar to 0 ... 30 bar	100 bar
	0 ... 100 bar	100BR	0 ... 20 bar to 0 ... 100 bar	200 bar



Data Sheet

PG55-CG55 Pressure Transmitters Gold Series Process and Cleanline

ORDERING CODE		EXAMPLE:	CG55	010	20	150	RF	FN	HA	KV1	G	10BR	S	XC3
Model														
PG55	Process pressure transmitter gold series													
CG55	Cleanline pressure transmitter gold series (sanitary)		CG55											
Accuracy														
010	0.1% of adjusted span			010										
Connection size														
Process series PG55														
Threaded; for more connection types use MG6F and select option at category "Reducing Nipple"														
MG4F	G ½" (½" BSP) with flush diaphragm (not admissible for seal assembly)													
MG6F	G 1" (1" BSP) with flush diaphragm													
08F	1" NPT with flush diaphragm (available for 10, 30 and 100 bar ranges)													
Weld-on Nipple														
W33	Ø 33 mm connection nipple													
Manufacturer compatibility														
X2	M44x1,25 threaded lock ring (matches the 1-½" PMC and Rosemount)													
X10	Valcom process connection, ET 13													
X12	Satron / Valmet PASVE 1" BSP connection													
X37	Valcom process connection, ET 15													
Cleanline series CG55														
Threaded; for more connection types use W62 and select option at category "Reducing Nipple"														
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"													
Milk coupling														
MD25	Milk coupling DN25 (DIN 11851) (available for 10, 30 and 100 bar ranges)													
MD40	Milk coupling DN40 (DIN 11851)													
MD50	Milk coupling DN50 (DIN 11851)													
Tri-Clamp														
S15	1-½" Tri-Clamp (DIN 32676) (available for 0,4 bar with min. span of 0,1 bar and 1,2 bar with min. span of 0,3 bar) (3A approved version available)													
S20	2" Tri-Clamp (DIN 32676) (3A approved version available)													
S30	3" Tri-Clamp (DIN 32676)													
Weld-on Nipple														
W62	Ø62 mm connection hygienic nipple													
W85	Ø85 mm connection hygienic nipple (3A approved version available)													
Flange according ASME B16.5 or EN1092-1														
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)													

continued at page 4



Data Sheet

PG55-CG55 Pressure Transmitters Gold Series Process and Cleanline

ORDERING CODE		EXAMPLE:	CG55	010	20	150	RF	FN	HA	KV1	G	10BR	S	XC3
Connection size														
Cleanline series CG55														
Manufacturer compatibility														
X1	Universal adapter E+H flush													
X4	Varivent (baseplate from GEA, Tuchenhausen DN50 up to DN125) (3A and EHEDG approved version available)													
X6	APV baseplate													
X7	DRD flange (3A approved version available)													
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® protocol (only available for non-ATEX executions)	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 (only available for non-ATEX executions)													
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	10BR												
Wetted Parts														
S	Diaphragm in Stainless steel 316L (1.4404) (standard)	S												
H	Diaphragm in Hastelloy® C-276 (2.4819)													
H1	Wetted parts in Hastelloy® C-276 (2.4819)													
U	Wetted parts with Tantalum coating													
W	Diaphragm in Stainless steel 316L (1.4404) and with Gold coating													

continued at page 5



PG55-CG55 Pressure Transmitters Gold Series Process and Cleanline

ORDERING CODE	EXAMPLE:	CG55	010	20	150	RF	FN	HA	KV1	G	10BR	S	XC3
---------------	----------	------	-----	----	-----	----	----	----	-----	---	------	---	-----

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

X__

Hygienic Option

- 3A 3A standards 74-07
(available with cleanline process connections S15, S20, W85, X4 and X7 and wetted parts S and H)
- EH EHEDG Hygienic standards
(only available with cleanline process connection X4 and wetted parts S, H)

Temperatur Option

- HT High temperature execution with integrated cooling tower (Temperature range: 100 - 200 °C) *
(CG55 only; ATEX (Ex) max. 100 °C)
- UT Ultra High temperature execution with integrated cooling tower (Temperature range: 150 - 280 °C) *
(CG55 only; not available for ATEX)
- LT Low temperature execution (Temperature range: < 0 °C)

Reducing Nipple

Process series PG55

select connection size MG6F in combination with below option

- 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

Cleanline series CG55

select connection size W62 in combination with below option

- 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

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 (only available for non-ATEX and ATEX execution EX1)

continued at page 6

* Not available for hygienic options



PG55-CG55 Pressure Transmitters Gold Series Process and Cleanline

ORDERING CODE **EXAMPLE:** **CG55** **010** **20** **150** **RF** **FN** **HA** **KV1** **G** **10BR** **S** **XC3**

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

X__

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

Agency Approval

EX1 ATEX: II 1 G Ex ia IIC T4 Ga and IECEx: Ex ia IIC T4 Ga

EX2 ATEX: II 2 D Ex ib IIIC T100°C Db and IECEx: Ex ib IIIC T100°C Db

EX3 ATEX: II 3 G Ex ec IIC T4 Gc and IECEx: Ex ec IIC T4 Gc

SIL SIL 2 (proven in use)

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

NT Nameplate in Stainless steel, fixed with rivets

Testing/Certificates

CD2 Material test report according to EN 10204 / 2.2

C2R Material test report according to EN 10204 / 2.2 including roughness

C3 Material report according to EN 10204 / 3.1

C4 Individual calibration chart

CD5 Certificate according to NACE for Oilfields MR0175 / ISO 15156 and Refineries MR0103 / ISO17945

CL Calibration according customer requirements

MQ Positive Material Identification (PMI)

HY Hydrostatic pressure test

C3

* Not available for hygienic options



Data Sheet

PG55-CG55 Pressure Transmitters Gold Series Process and Cleanline

GOLD SERIES - PROCESS DIMENSIONS IN MM [INCH]

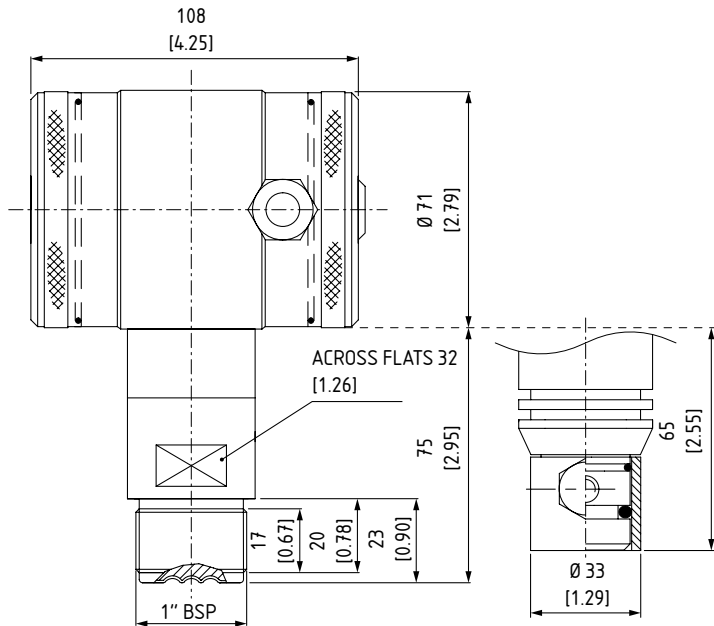
For reference only, consult Ashcroft for specific dimensional drawings

THREADED

Code: MG6F
G 1" with flush diaphragm

WELD-ON NIPPLE

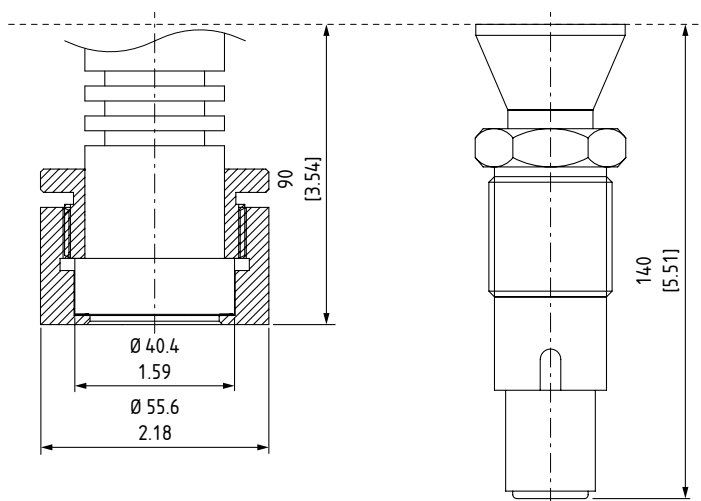
Code: W33
Ø 33 mm connection nipple



MANUFACTURER COMPATIBILITY

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

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



Data Sheet

PG55-CG55 Pressure Transmitters Gold Series Process and Cleanline

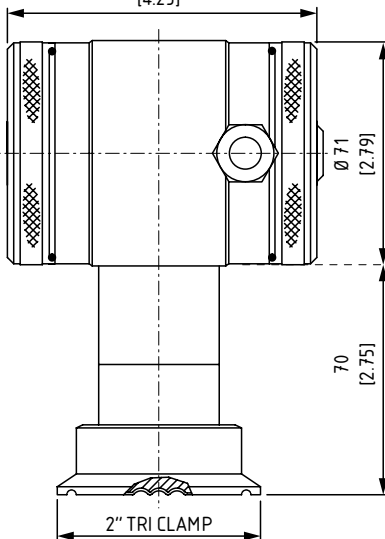
GOLD SERIES - CLEANLINE DIMENSIONS IN MM [INCH]

For reference only, consult Ashcroft for specific dimensional drawings

TRI-CLAMP

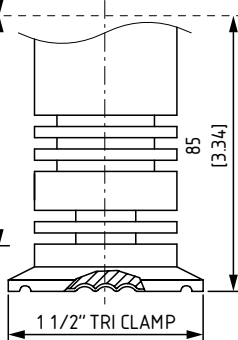
Code: S20
Tri-Clamp 2"

108
[4.25]



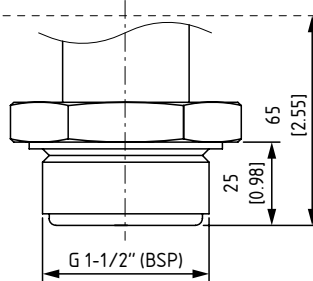
TRI-CLAMP

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



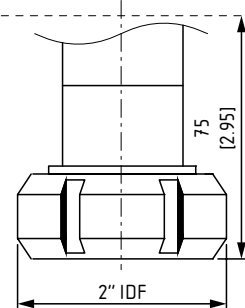
FLUSH DIAPHRAGM

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



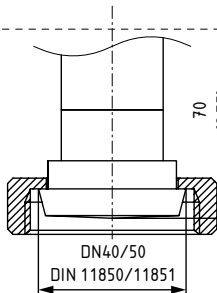
IDF

Code: IC20
2" IDF coupling nut



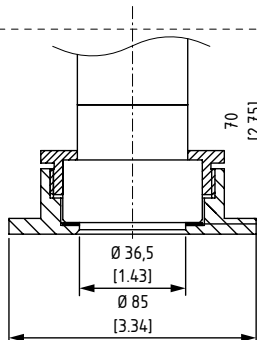
MILK-COUPLING

Code: MD25, MD40 or
MD50



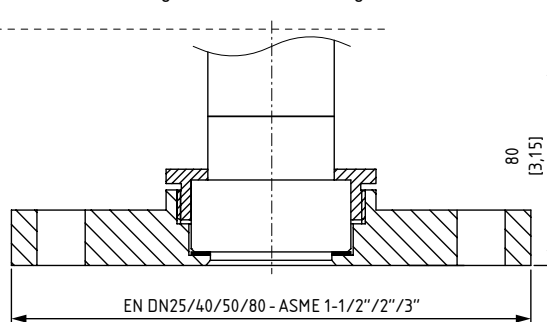
WELD-ON NIPPLE

Code: W85
Ø 85 Hygenic nipple connection



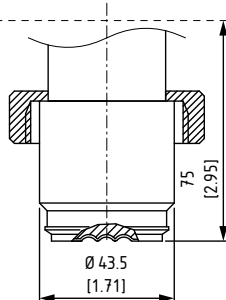
FLANGED

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

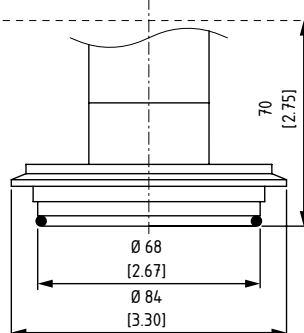


MANUFACTURER COMPATIBILITY

Code: X1
Universal flush diaphragm
(Endress & Hauser)



Code: X4
GEA Tuchenhausen Varivent®
DN50 (up to DN125)



Code: X13
VEGA "LA" DN40

