Hydra-Dry Pressure Transducer

Construction

GEMÜ C32 **Hydra-Dry** is an electronic pressure transducer equipped with a ceramic capacitive sensor. The sensor is isolated from the process by the double diaphragm system. The body is made from PFA and can be directly integrated into the pipe system by common flare unions.
Only the PFA body and the PFA diaphragm are wetted parts. The pressure is transmitted by a ceramic sensor. No pressure transmission fluid is required.

Features

- C32 is especially suitable for pressure measurement of ultra high purity chemicals
- All wetted parts are made from High Purity PFA
- The pressure is transmitted by a ceramic sensor
- The sensor is isolated from the process by a double diaphragm system

Advantages

- Minimal deadleg
- No transmission fluid, „dry solution“
- Non-metallic ultra pure ceramic sensor
- Vented double diaphragm isolates the sensor
- All plastic housing
- No additional auxiliary power required
- 5 different units of pressure can be set

GEMÜ C32
Hydra-Dry
In-Line
with integrated
digital display

GEMÜ C32
Hydra-Dry
Dead-End

External
digital display
for GEMÜ C32
Hydra-Dry

Dimensions - GEMÜ *CleanStar*® Hydra-Dry C32

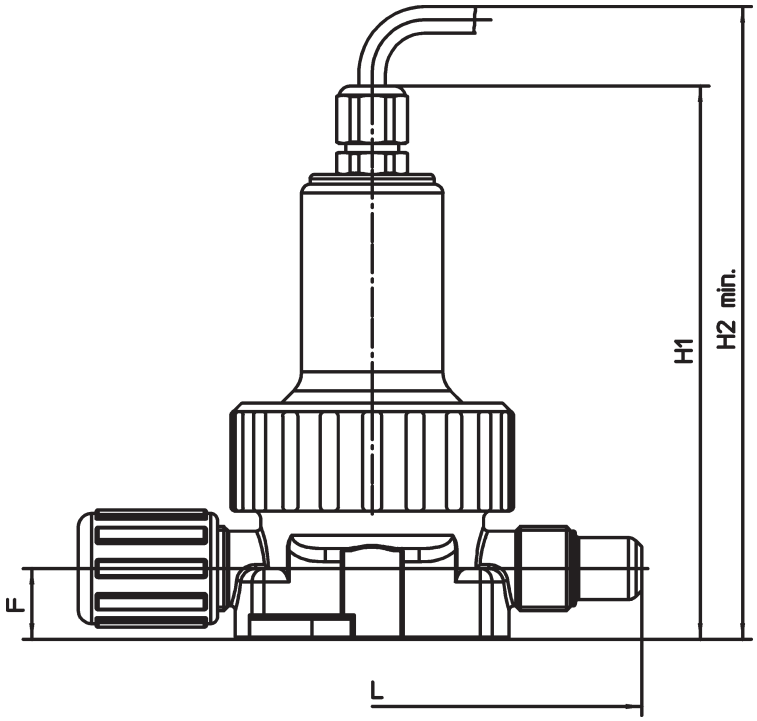


Table of dimensions see last page

GEMÜ® C32 HPW

Technical data

Transmitter

Flow medium

Suitable for any inert or corrosive gases or liquids,
- particularly high purity media - which do not corrode the body and diaphragm materials.

Version of transmitter diaphragm

Double diaphragm system, vented

Material of wetted parts

PFA

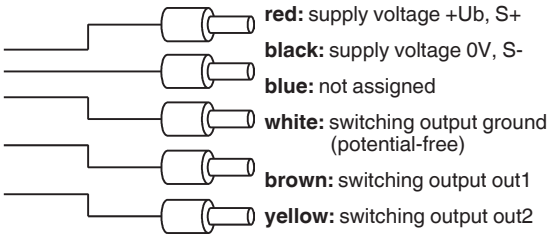
Flow direction

Optional

Temperature

Ambient:	0° ... +60° C
Medium:	0° ... +80° C
Storage:	-20° ... +60° C

Electrical connection diagram



Pressure transmitter

Auxiliary power U_B

DC 16 ... 30V

Input signal

4 ... 20 mA, two wire (supply from current loop, 6V voltage loss)

Output signal

Analogue signal is directly looped through

Cable length

5 m, flying lead, FEP jacketed

Characteristic deviation

± 0.5% of span

Maximum admissible current

± 40 mA (momentary)

Temperature

Ambient:	0° ... +60° C
Medium:	0° ... +80° C
Storage:	-20° ... +60° C

depending on working pressure

Display

Type:	7-segment LED, red, 4-digit
Range:	-999 ... 6000
Accuracy:	≤ ± 0.5 ± 1 digit (% of span)

Adjustment of scaling

Menu guided programming by external operating keys
Measuring range adjustable
Decimal point freely selectable
Programmable pressure units: bar, psi, kg/cm^2, MPa, kPa
Zero point freely adjustable within ±10% of span

Switching output

Can be individually adjusted by external operating keys
Number: 2 x NPN Open collector galvanically separated
Function: Make contact, break contact
Adjustment: Freely adjustable within 1... 99 % of span
Temperature error: < 0.1% / 10 K
Accuracy: ≤ ± 0.5 ± 1 digit (% of span)
Max. switching current: 300 mA (real)
Indication of switching status: LED

Order data

Transmitter

Nominal size		Code
1/4” (only Dead-End)	DN 4	4
1/4” NPT (only Dead-End)	DN 4	4
3/8”	DN 6	6
1/2“	DN 10	8
3/4“	DN 15	12
1”	DN 20	16
1 1/4”	DN 25	20

Mounting variant	Code
NPT male thread	A
Dead-End	E
NPT female thread	I
In-Line	L

Connection	Code
NPT female thread	31
Flare connection with union nut C-PVA	73
Flare connection with PVDF union nut	75
Flare connection with PFA union nut	77

Body material	Code
PFA	30

Diaphragm material	
PFA	H3

Pressure transmitter

Unit	Code
Bar	B
psi	P
kPa	A

Measuring range			Code
0...30 psi	0...250 kPa	0...2,5 bar*	BF
0...60 psi	0...400 kPa	0...4,0 bar	BG
0...100 psi	0...600 kPa	0...6,0 bar	BH
* Not possible with electrical contacts			

Connection form	Code
Cable outlet 5 m, IP 67 (FEP jacketed)	E

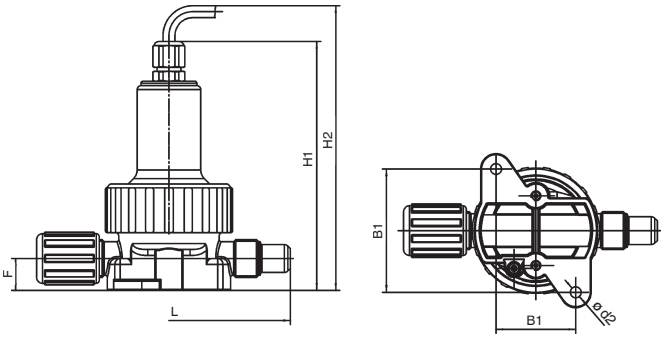
Display	Code
Integrated digital display	I
Separate digital display	S
Without	Z

High Purity version	Code
High Purity white	HPW

Order example	C31	8	L	75	30	H3	B	BF	E	Z	HPW
Type	C31										
Nominal size (code)		8									
Mounting variant (code)			L								
Connection (code)				75							
Body material (code)					30						
Diaphragm material (code)						H3					
Unit (code)							B				
Measuring range (code)								BF			
Connection form(code)									E		
Display (code)										Z	
Version High Purity (code)											HPW

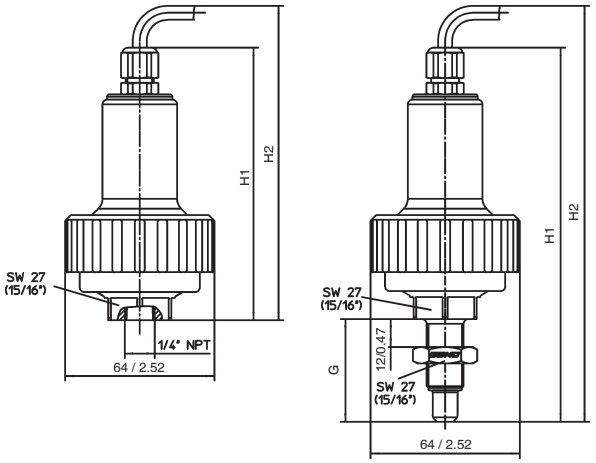
Dimensions GEMÜ *CleanStar*® Hydra-Dry C32 [mm/inch]

In-Line



[mm]	H1	H2	L	F	B1	B2	ø d2
3/8” Flare	130	155	118	16	40	62	5.5
1/2” Flare	130	155	122	16	40	62	5.5
3/4” Flare	135	160	122	19	45	62	5.5
1” Flare	160	185	165	25	56	78	6.5
1 1/4” Flare	160	185	225	25	56	78	6.5
[inch]							
3/8” Flare	5.12	6.10	4.65	0.63	1.57	2.44	0.22
1/2” Flare	5.12	6.10	4.80	0.63	1.57	2.44	0.22
3/4” Flare	5.31	6.30	4.80	0.75	1.77	2.44	0.22
1” Flare	6.3	7.28	6.50	0.98	2.20	3.07	0.26
1 1/4” Flare	6.3	7.28	88.6	0.98	2.20	3.07	0.26

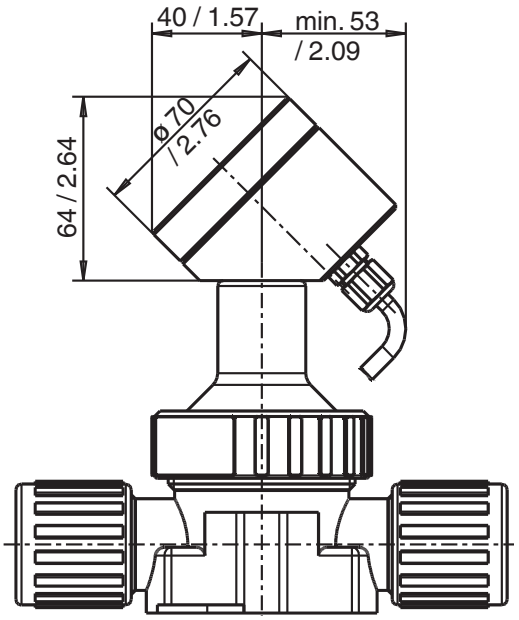
Dead-End



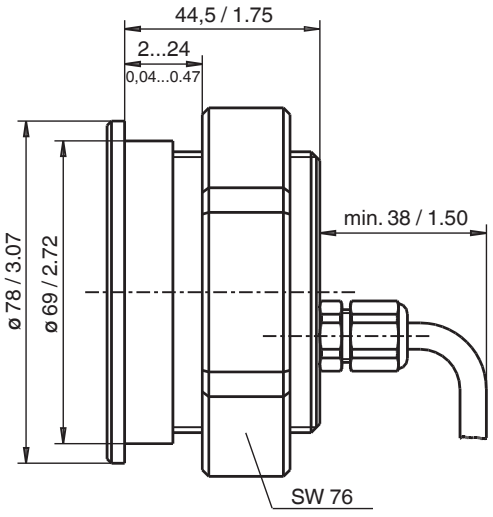
	H1*	H2	L
1/4” Flare	161 / 6.34	min. 179 / 7.05	44 / 1.73
3/8” Flare	161 / 6.34	min. 179 / 7.05	44 / 1.73
1/2” Flare	164 / 6.46	min. 182 / 7.17	47 / 1.85
1/4” NPT female thread	117 / 4.61	min. 135 / 5.31	-

*Tolerances: ± 2 mm / ± 0.08 inch

With integrated digital display



External digital display



For further High purity products, accessories and other products, please see our Product Range catalogue and Price List. Contact GEMÜ.

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