

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/PTFE and can be directly integrated into the pipe system by common flare unions. Only the PFA/PTFE 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/PTFE
- The pressure is transmitted by a ceramic sensor
- The sensor is isolated from the process by a double diaphragm system
- Protection class IP 67
- REACH / RoHS compliant
- Other certificates on request (e.g. FDA compliance)

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 freely set
- Production, assembly, calibration and packaging in cleanroom ISO 6

Dimensions - GEMÜ C32

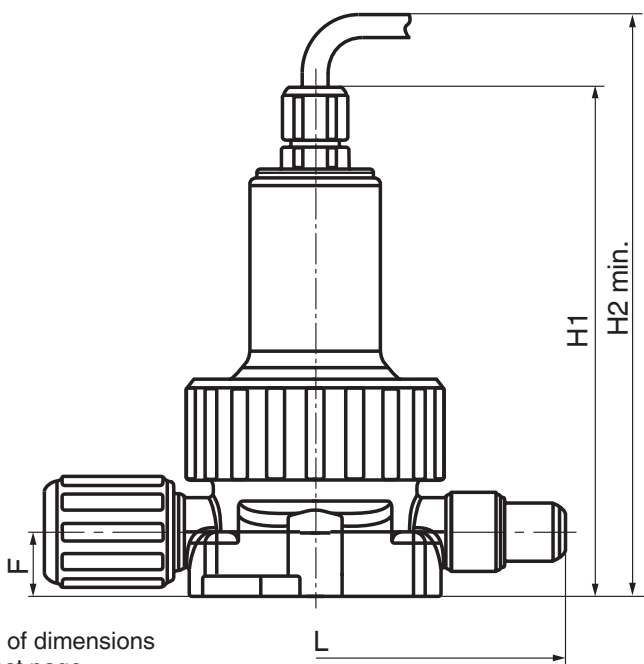


Table of dimensions
see last page



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



GEMÜ C32
Hydra-Dry
Dead-End



External
digital display
for GEMÜ C32
Hydra-Dry

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

Diaphragm PFA
Body PFA (In-Line), PTFE (Dead-End)

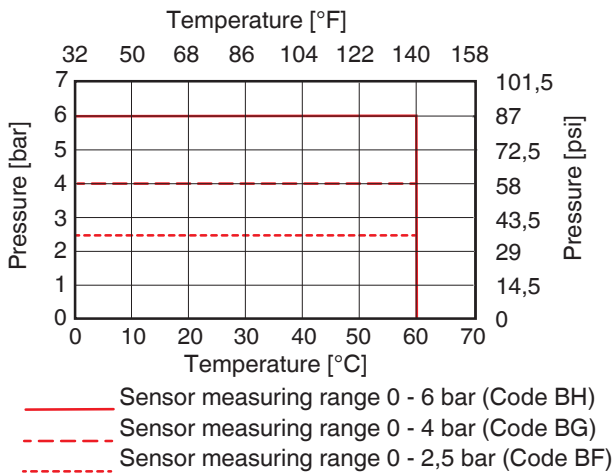
Flow direction

Optional

Temperature

Ambient: 32... to 140 °F
Medium: 32... to 140 °F
Storage: -4... to 140 °F

Pressure/temperature correlation



Pressure transmitter

Input signal

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

Output signal

Analogue signal is directly looped through

Cable length

196.85 inch, flying lead, PFA jacketed

Characteristic deviation

± 0.5 % of span

Maximum admissible current

0,027 A

Temperature

Ambient: 32... to 140 °F
Medium: 32... to 140 °F
Storage: -4... to 140 °F
depending on working pressure

Power supply U_B (digital display)

DC 16 ... 30 V

Display

Type: 7-segment LED, red, 4-digit
Range: -999 ... 6000
Accuracy: $\leq \pm 0.5 \pm 1$ digit (% of span)

Adjustment of scaling

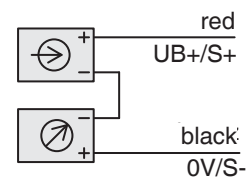
Menu guided programming by external operating keys
Measuring range adjustable
Decimal point freely selectable
Programmable pressure units: bar, psi, kg/cm², MPa, kPa
Zero point freely adjustable within ±10 % of span

Switching output

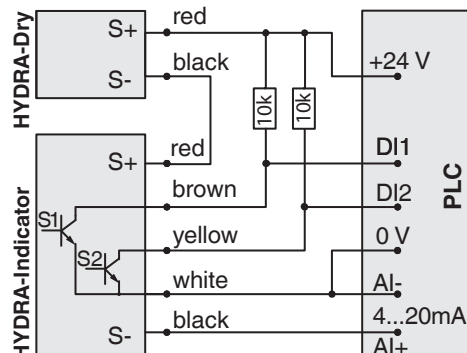
Can be individually adjusted by external operating keys
Number: 2 x NPN Open collector galvanically separated
Function: Make contact, break contact
Adjustment: Freely adjustable within 1... 99 % of span
Temperature error: < 0.1 % / 10 K
Accuracy: $\leq \pm 0.5 \pm 1$ digit (% of span)
Max. switching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

Electrical connection diagram

GEMÜ C32 without display



GEMÜ C32 with digital display



Order data

Transmitter

Nominal size		Code
1/4" (only Dead-End)	DN 4	4
3/8" (Dead-End + In-Line)	DN 6	6
1/2" (Dead-End + In-Line)	DN 10	8
3/4" (only In-Line)	DN 15	12
1" (only In-Line)	DN 20	16
1 1/4" (only In-Line)	DN 25	20

Mounting variant	Code
Dead-End	E
In-Line	L

Connection	Code
NPT male thread (only 1/4" Dead-End)	13
Flare connection with CPFA union nut	73
Flare connection with PVDF union nut	75
Flare connection with PFA union nut	77

Body material	Code
PTFE (Dead-End)	26
PFA (In-Line)	30

Diaphragm material	Code
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

Pressure reference: Relative pressure
Not suitable for vacuum applications

Connection form	Code
Cable outlet 196,85 inch, IP 67 (PFA jacketed)	E

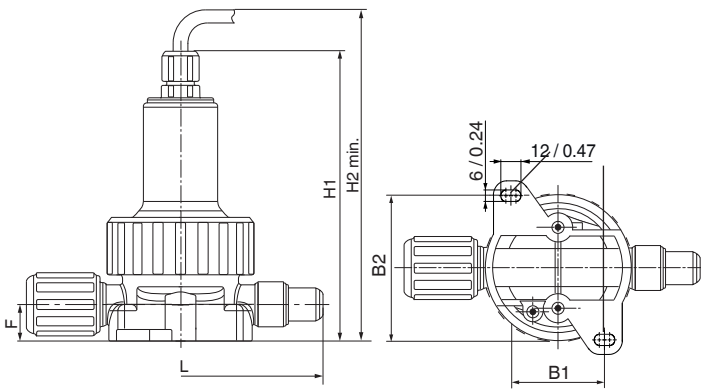
Display	Code
Integrated digital display	I
Separate digital display	S
Without	Z

High Purity version	Code
High Purity white	HPW

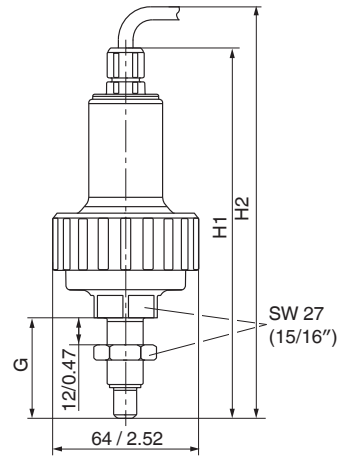
Order example	C32	8	L	75	30	H3	B	BF	E	Z	HPW
Type	C32										
Nominal size (code)		8									
Mounting variant (code)			L								
Connection (code)				75							
Body material (code)					30						
Diaphragm material (code)						H3					
Unit (code)							B				
Measuring range (code)								BF			
Connection form(code)									E		
Display (code)										Z	
Version High Purity (code)											HPW

Dimensions GEMÜ C32 [mm/inch]

In-Line



Dead-End



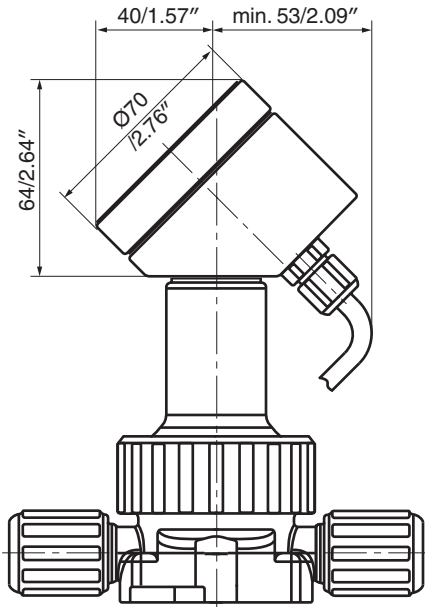
[mm]	H1	H2	L*	F	B1	B2
3/8" Flare*	130	155	118	16	40	62
1/2" Flare*	130	155	122	16	40	62
3/4" Flare*	135	160	122	19	45	62
1" Flare	160	185	165	25	56	78
1 1/4" Flare	160	185	225	25	56	78
[inch]						
3/8" Flare*	5.12	6.10	4.65	0.63	1.57	2.44
1/2" Flare*	5.12	6.10	4.80	0.63	1.57	2.44
3/4" Flare*	5.31	6.30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

* Overall dimension (installation dimension) without union nuts

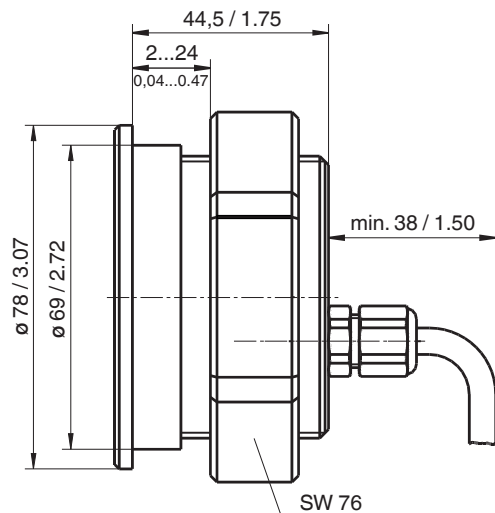
	H1*	H2	L
1/4" Flare	161 / 6.34	min. 186 / 7.32	44 / 1.73
3/8" Flare	161 / 6.34	min. 186 / 7.32	44 / 1.73
1/2" Flare	164 / 6.46	min. 189 / 7.44	47 / 1.85

*Tolerances: $\pm 2 \text{ mm} / \pm 0.08 \text{ inch}$

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.

GEMÜ® VALVES, MEASUREMENT
AND CONTROL SYSTEMS

