

## Hydra-Gauge Pressure gauge

### Construction

The GEMÜ C30 *Hydra-Gauge* is equipped with a PFA transmitter and a pressure gauge. The body is made from PFA and can be directly integrated into the pipe system by common flare unions. A PFA double diaphragm prevents contamination of the working medium. Only the PFA body and the PFA diaphragm are wetted parts. The pressure is transmitted by a monitor liquid (50 % DI water and 50% IPA (isopropyl alcohol)). The pressure gauge complies with EN 837-1.

### Features

- C30 is especially suitable for pressure measurement of ultra high purity chemicals
- All wetted parts are made from High Purity PFA
- Pressure transmission by double diaphragm technology
- Pressure gauge can be rotated through 360°
- Not suitable for applications with strong vibrations, pulsing process pressure or pressure peaks; provide for suitable pulsation dampers and throttling sections, if necessary

### Advantages

- Minimal deadleg
- The proven GEMÜ *CleanStar*® technology is the basis of the transmitter
- Working medium hermetically isolated from the gauge by a double diaphragm
- Proven long term reliability
- Pressure gauge can be positioned through 360° enabling individual user options

### Dimensions - GEMÜ *CleanStar*® Hydra-Gauge C30

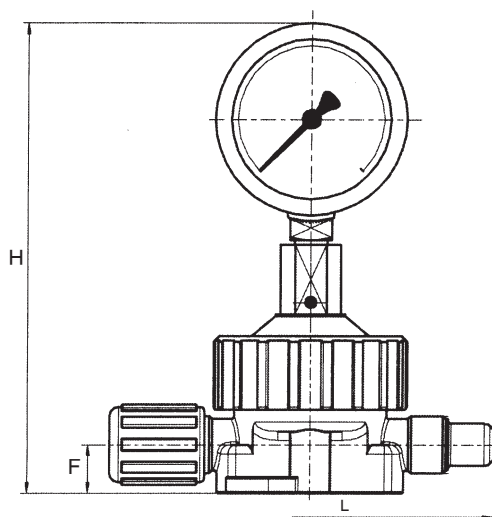
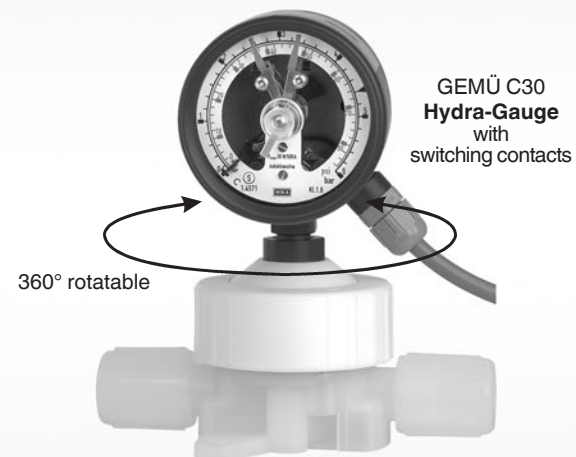


Table of dimensions and further dimensions see last page.



## Technical data

### Transmitter

#### Flow medium

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

#### Working range

Constant:	3/4 of full scale range
Variable:	2/3 of full scale range
Momentary:	full scale range

#### Version of transmitter diaphragm

Double diaphragm system for overpressure ranges  
Single diaphragm for +/- pressure ranges

#### Temperature

	IPA/DI water (50:50) (Code 2)	DI water (Code 1)
Ambient:	+5° ... +60° C	+5° ... +60° C
Medium:	+5° ... +60° C	
Storage/transport:	-20° ... +60° C	
depending on working pressure		

#### Material of wetted parts

PFA

#### Influence of temperature

0.5 % of measuring range (scale end value) per 10° C temperature change (reference temperature 20° C).

#### Flow direction

Optional

### Pressure gauge

#### Accuracy

± 1.6 % of measuring range or scale end value

#### Material of measuring system

CrNi steel 1.4571

#### Nominal size

063 mm

#### Gauge material

CrNi steel with Teflon coating

### Switching contacts

#### Switching functions

Make contact: closes as pressure increases  
Break contact: opens as pressure decreases  
The switching function is irrelevant when piloting a PLC.

#### Magnetic spring contact

Open contacts, can switch power directly

#### Inductive contact

Non-touching switch, no wear, high reliability, Ex approval, additional switching unit required

#### Electronic contact

Inductive contact with integrated switching amplifier, non-touching switch, high reliability, for direct connection to a PLC or piloting relays

#### Limiting values for the contact load at ohmic load

Rated voltage $U_{eff}$	Inductive contact type 81		Magnetic spring contact type 82	
	unfilled units		filled units	
<b>Rated working current:</b>	<b>250 V</b>			
Start-up current	0,7 A	1,0 A	1,0 A	1,0 A
Cutoff current	0,7 A	1,0 A	1,0 A	1,0 A
Constant current	0,6 A	0,6 A	0,6 A	0,6 A
Switch rating	10 W/18 VA	30 W/50 VA	20 W/20 VA	

## 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

Mounting variant	Code
Male thread NPT	A
Dead-End	E
Female thread NPT	I
In-Line	L

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

Body material	Code
PFA	30

Diaphragm material	Code
PFA	H3

### Pressure gauge

Units	Code
Double scale bar / psi	B
Double scale psi / bar	D
Double scale kPa / bar	G

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
-30 inHg...15 psi	-100...150 kPa	-1...1.5 bar*	CF
-30 inHg...30 psi	-100...300 kPa	-1...3.0 bar	CG
-30 inHg...60 psi	-100...500 kPa	-1...5.0 bar	CH

\* Not possible with electrical contacts

Connection form	Code
Back, center mount, not possible with switching contacts	B
Bottom	U

Sight glass	Code
Acrylic glass	A
Instrument flat glass	G

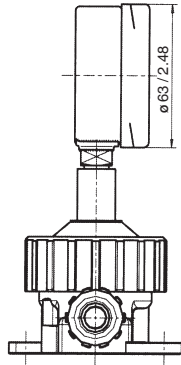
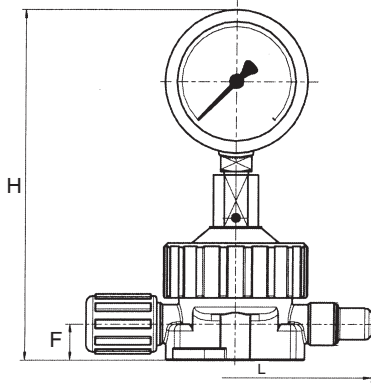
Switching contacts		Code
Without		Z
Inductive contact	1. Break / 2. Make contact	I
Inductive contact	1. Make / 2. Break contact	K
Magnetic spring contact	1. Break / 2. Make contact	M
Magnetic spring contact	1. Make / 2. Break contact	N
Electronic contact PNP	1. Break / 2. Make contact	P
Electronic contact PNP	1. Make / 2. Break contact	S

Fill fluid of transmitter	Code
DI-water	1
Isopropyl-alcohol (IPA) / DI-water 50:50	2

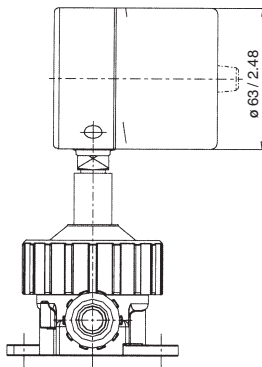
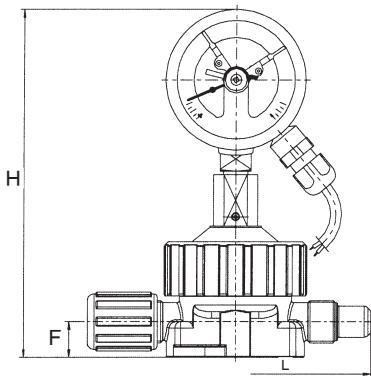
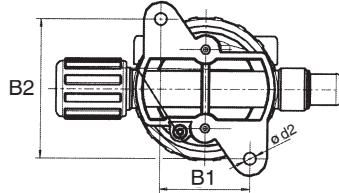
Transmitter version	Code
High Purity White	HPW

Order example	C30	8	L	75	30	H3	B	BF	U	A	Z	1	HPW
Type	C30												
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)									U				
Sight glass (code)										A			
Switching contacts (code)											Z		
Fill fluid of transmitter (code)												1	
Transmitter version (code)													HPW

Dimensions - GEMÜ CleanStar® Hydra-Gauge C30 Normal version, with switching contacts and Dead-End version [mm / inch]

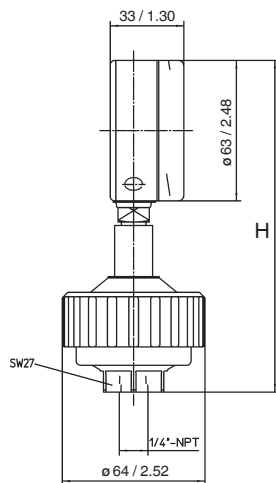
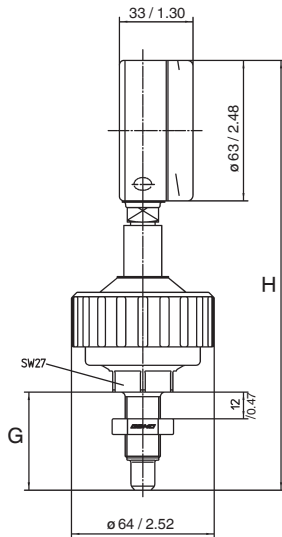


[mm]						
In-Line	H	L	F	B1	B2	ø d2
3/8" Flare	156.0	118	16	40	62	5.5
1/2" Flare	156.0	122	16	40	62	5.5
3/4" Flare	162.0	122	19	40	62	5.5
1" Flare	186.5	165	25	56	78	6.5



[inch]						
In-Line	H	L	F	B1	B2	ø d2
3/8" Flare	6.14	4.65	0.63	1.57	2.44	0.22
1/2" Flare	6.14	4.80	0.63	1.57	2.44	0.22
3/4" Flare	6.38	4.80	0.75	1.57	2.44	0.22
1" Flare	7.34	6.50	0.98	2.20	3.07	0.26

for version with Min./Max. contact



[mm/inch]		
Dead-End	H	G
1/4" Flare	193 / 7.60	44 / 1.73
3/8" Flare	193 / 7.60	44 / 1.73
1/2" Flare	193 / 7.60	44 / 1.73
1/4" NPT female thread	149 / 5.87	-

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

