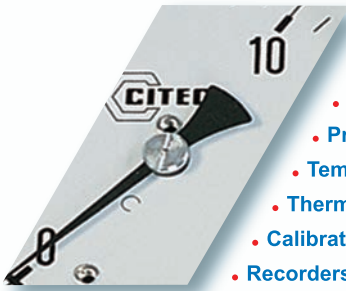


# Pressure Temperature Instrumentation





## ■ Products



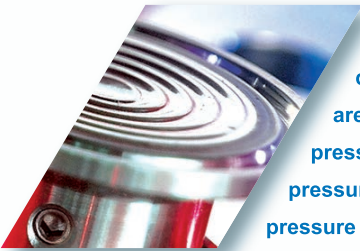
- Pressure gauges
- Diaphragm seals
- Pressure & temp. switches
- Pressure transmitters
- Temperature probes
- Thermowells
- Calibration
- Recorders

## ■ Applications



- OEMs
- General industry
- Food
- Chemical
- Pharmaceutical
- Oil & gas
- Water treatment

## ■ Diaphragm seals mounting



All types of diaphragm seals are mounted on pressure gauges, pressure switches and pressure transmitters

## ■ Special products



## A quick response to your requests

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✉ : [citec@citec.fr](mailto:citec@citec.fr)



# Pressure & temperature instrumentation

CITEC, French company with over 50 years experience in the industry, offers a wide range of high quality measuring and control instruments in the field of pressure, temperature, humidity, level and flow. This catalog is dedicated to instruments for pressure and temperature: pressure gauges, thermometers, pressure and temperature switches, pressure transmitters, temperature probes, recorders. The various series are designed to meet the needs of general industry, OEMs and the highest standards across many industries including food, pharmaceutical, chemical, petrochemical, power generation, water treatment.

## Pressure instruments

CITEC pressure gauges include a full range from mbar to 7000 bar. Environmental conditions, type of fluid and pressure determine the type of construction: plastic, steel or stainless steel housing with stainless steel or brass mechanism, with liquid filled version in case of vibrations or pressure pulsations. A comprehensive range of accessories allows all installation types, with protection to overpressure, distance measurement or resistance to high temperatures. For applications with alarm or control, CITEC offers pressure gauges with electric contacts or 4-20mA output.

CITEC pressure transmitters have a range from vacuum to 4000 bar with accuracies up to 0.01%. Submersible and sanitary versions are also available. Pressure switches presented in this catalog are designed for process applications but other series for general industry are also available.

In case of viscous, pasty, corrosive or toxic media, or to meet safety or hygiene standards, CITEC offers a complete range of diaphragm seals to be mounted on pressure instruments, with different type of material according applications.

For testing or calibration needs, CITEC offers mechanical and digital test gauges with accuracies up to 0.01%. CITEC provides also comparison pumps, calibrators and recorders. CITEC laboratory issues calibration certificates.

## Temperature instruments

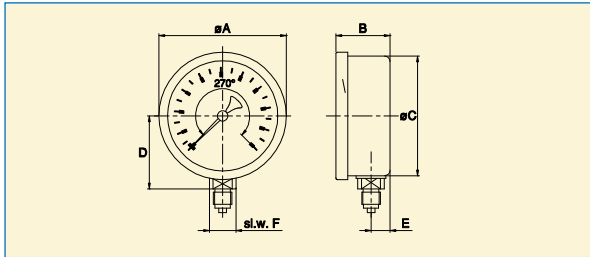
CITEC offers a complete range of thermometers, from -200°C to 700°C, bimetal or gas actuated types, with rigid stem or capillaries, including electric contacts option, covering the needs of all industries.

Electrical temperature measurement includes RTD or thermocouple temperature probes with a range from -200°C to 1600°C, as well as analogue transmitters and temperature switches.

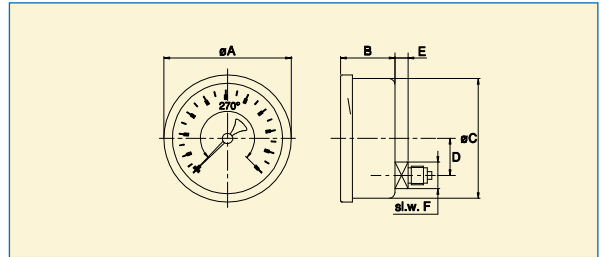
To isolate, protect the sensing element and permits removal of instrument, CITEC offers all types of thermowells: threaded, flanged or for welding as well as sanitary type.

# PRESSURE GAUGES DIMENSIONS

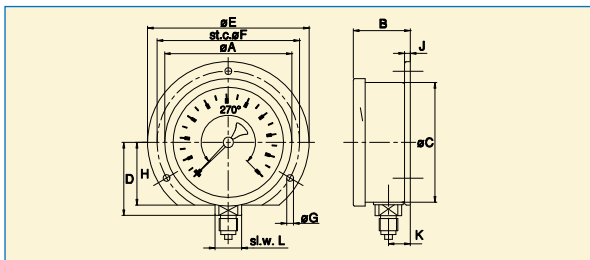
## ■ 7470 - 7570 Series



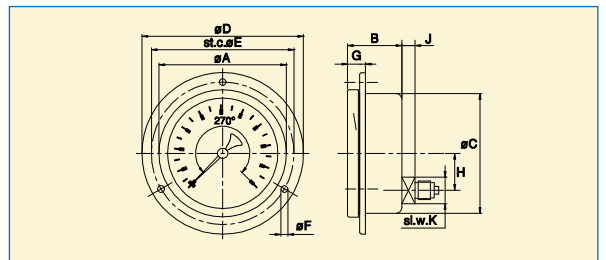
∅	A	B	C	F	Dry (kg)	Filled (kg)
63	68	30	63	14	0.140	0.25
100	110	49	100	22	0.530	1.00
150	150	50	150	22	1.020	2.10



∅	A	B	C	F	Dry (kg)	Filled (kg)
63	68	30	63	14	0.155	0.30
100	110	49	100	22	0.565	1.10
150	150	50	150	22	1.120	2.20

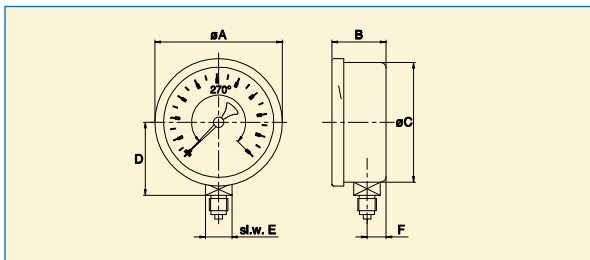


∅	A	B	C	D	E	F	G	H	J	K	L	Dry (kg)	Filled
63	68	31.2	63.0	35.5	85	75	3.6	33	3	11.5	14	0.175	0.35
100	105	49.0	99.0	63.0	132	116	5.0	52	4	19.5	22	0.600	1.10
150	150	50.0	150	97.0	196	168	6.0	83	6	24.0	22	1.360	2.40
160	160	50.0	150	97.0	196	178	6.0	83	6	24.0	22	1.360	2.40

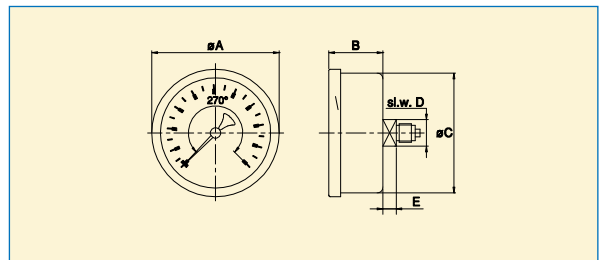


∅	A	B	C	D	E	F	G	H	J	K	Dry (kg)	Filled
63	68	30	63	85	75	3.6	99.0		14		0.18	0.32
100	105	48	99	132	116	4.8	13.5	33.4	11	22	0.64	1.15
150	150	50	150	196	168	6.0	21.0	52.0	17	22	1.54	2.64
160	160	50	150	196	178	6.0	21.0	52.0	17	22	1.54	2.64

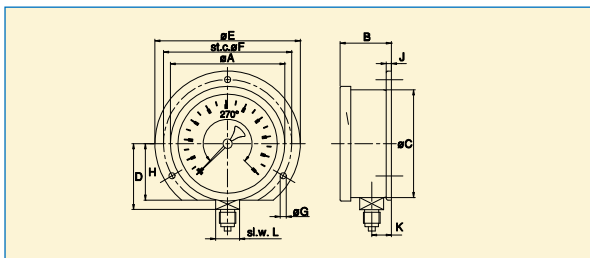
## ■ 2010-2020 Series



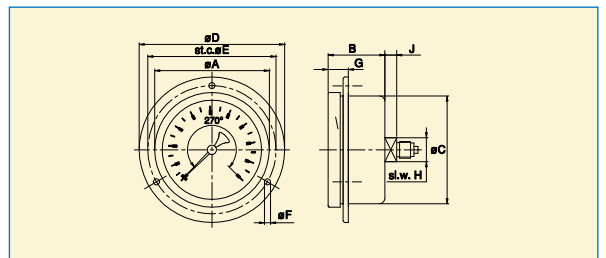
∅	A	B	C	D	E	F	Weight (kg)
63	68	35.0	63	38.5	14	10	0.210
100	105	45.5	99	63.0	22	17	0.570
160	163	45.0	160	105	22	17	1.300



∅	A	B	C	D	E	Weight (kg)
63	68	30	63	14	7	0.210
100	105	30	99	22	17	0.440
160	163	45	160	22	19	1.350



∅	A	B	C	D	E	F	G	H	J	K	L	Weight (kg)
63	68	35	63	38.5	85	75	3.6	33	3	11.5	14	0.230
100	105	45	99	63.0	132	116	5.0	52	4	19.5	22	0.640
160	163	51	161	97.0	196	178	6.0	83	6	24.0	22	1.360



∅	A	B	C	D	E	F	G	H	J	Weight (kg)
63	68	30	63	85	75	3.6	11.0	14	7	0.220
100	105	30	99	132	116	4.8	13.5	22	17	0.510
160	163	45	161	196	178	6.0	21.0	22	17	1.400



## ■ Pressure gauges and diaphragm seals

### Standard pressure gauges

- -1 to 1600 bar
- ABS, steel, SS, all SS versions
- Ø 40 to 160, class 1, 1.6, 2.5
- ATEX version



### Low pressure gauges

- ±25 mbar to ±1000 mbar
- SS and all SS versions
- capsule or diaphragm versions
- Ø 63 to 160, class 1.6



### With electric switch contacts

- -1 to 3000 bar
- aluminium, SS, all SS versions
- Ø 100-150, 1 to 3 contacts



### Pressure gauges with transmitter

- -1 to 400 bar
- 4-20mA, 0-10V outputs
- all SS, Ø 100
- class 1



### Digital pressure gauges

- -1 to 1000 bar
- accuracy up to 0.01%
- min/max, peak recording
- ideal for testing and calibration



### Gauges with diaphragm seals

- all welded, with flange, specials
- -1 to 600 bar
- for pasty, corrosive, toxic media
- for hygiene or safety standards



### Solid front, Process pressure gauges

- -1 to 1600 bar
- solid front, safety design
- according EN837.1, safety S3, ASME B40.1



### Differential pressure gauges

- ΔP : 4 mbar to 25 bar
- static pressure up to 400 bar
- Ø 100-150, class 1.6 to 2.5
- electric contacts version



### Other pressure gauges

- high pressure up to 7000 bar
- large dim. Ø 180-250, -1 to 600 bar
- square, rectangular, 0 to 60 bar
- liquid column, -6000 to 6000 Pa



### Accessories

- max pointer, index
- siphons, capillaries, fittings
- overpressure protectors, snubbers
- cocks, valves, manifolds



### Calibration, test

- calibration certificates
- test pressure gauges, class 0.6 to 0.1
- digital pressure gauges, class up to 0.01
- high accuracy transmitters, class 0.01
- manual pumps, calibrators, recorders



## ■ Thermometers

### Thermometers with rigid stem

- -40°C to 500°C, class 1, 1.6, 2
- bimetallic or gas thermometers
- steel, SS, all SS versions
- adjustable angle version
- Ø 63 to 160, stem L45 to 1000mm
- electric contacts version
- 4-20mA transmitter version



### Machine glass thermometers

- -60°C to 400°C, class 1 or 2
- straight, 90° or 135° angle models
- yellow or grey case
- brass or SS stem, L63 to 250mm



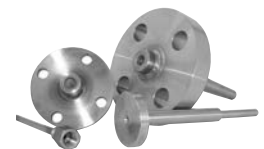
### Thermometers with capillaries

- -40°C to 400°C, class 1, 1.6, 2
- steel, SS, Ø 60 to 160
- capillary up to 50m
- electric contacts version
- 4-20mA transmitter version



### Thermowells

- welded or barstock design
- threaded, flanged, for welding
- sanitary type
- all types of materials





## ■ Pressure switches - Temperature switches

### Pressure switches

- -1 to 540 bar
- fixed or adjustable hysteresis
- ATEX version



### Differential pressure switches

- $\Delta P$  : 75 mbar to 42 bar
- fixed or adjustable hysteresis
- ATEX version



### Temperature switches

- -40°C to 400°C
- rigid stem, L70 to 300mm
- with capillary 1.5 to 7.5m
- ATEX version



## ■ Pressure transmitters

### OEM

- -1 to 1000 bar
- accuracy 0.5% and 1%
- 4-20mA, 0-10V outputs



### Differential, low pressures

- $\Delta P$  : 0.25 mbar to 100 bar
- display and contacts versions
- industry, HVAC



### Industry

- -1 to 4000 bar
- accuracy up to 0.01%
- output 0-4/20mA, 0/5-10V
- flush diaphragm version
- options : ATEX, 150°C, 7000 bar



### Submersible

- level measurement 0.1 to 20 bar
- hydrocarbon resistance option
- accuracy 0.5% or 1%
- 4-20mA, 0-10V outputs



### With diaphragm seals

- all type of diaphragm seals mounting
- hygienic version



### With display and/or relay

- indicators to mount on transmitters
- pressure gauges with transmitter
- pressure switches with transmitters
- PC connection in option



## ■ Temperature probes and transmitters

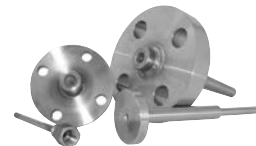
### Temperature probes

- Pt100, -50°C to 450°C
- Tc J/K, -200°C to 1600°C
- with head or cable connection
- surface, ambient sensors
- special stem on request
- ATEX version



### Thermowells

- welded or barstock design
- threaded, flanged, for welding
- sanitary type
- all types of materials



### Temperature transmitters

- 4-20mA or 0-10V output
- with head connection
- compact version
- ATEX version
- HART® protocol version



# SUMMARY

Series	P 5	PRESSURE GAUGES	Applications
<b>ABS case pressure gauges</b>			
3100	5	ABS case, dry	Pneumatics, OEM, 0 to 25 bar
<b>Steel case pressure gauges</b>			
6000	6	Steel case, dry	Pneumatics, -1 to 60 bar
<b>Stainless steel case pressure gauges</b>			
6100	8	Stainless steel case, for regulators	Pneumatic regulators, 0 to 11 bar/kg/cm <sup>2</sup> -psi
2100	9	Stainless steel case, filled, bar	Hydraulic equipment, OEM
2100H	10	Stainless steel case, filled, bar/psi	Hydraulic equipment, OEM
7110-7210	11	Stainless steel case, dry or filled	Very robust, pneumatics, hydraulics
<b>All stainless steel pressure gauges</b>			
7470-7570	13	All stainless steel, dry or filled, readjustable	Chemical, petrochemical, food, pharmaceutical
<b>Solid front, process pressure gauges</b>			
8620	15	All stainless steel, safety design	According to EN 837.1, safety S3
9640	16	All stainless steel, phenolic case, safety design	According to ANSI B40.1 & EN 837.1, safety S3
<b>Low pressure gauges</b>			
2010	17	Low pressure, stainless steel case, capsule	Neutral gases, -1000 to 1000 mbar
2020	19	Low pressure, all stainless steel, capsule	Corrosive gases, -1000 to 1000 mbar
<b>Differential pressure gauges</b>			
7810	21	Differential, all stainless steel, 60 mbar to 10 bar	Chemical, petrochemical, 90° connections
BDT13	22	Differential, all stainless steel, 100 mbar to 25 bar	Chemical, petrochemical, static pressure up to 400 bar
<b>Pressure gauges with electric switch contacts</b>			
5600	23	All stainless steel with electric switch contacts	Very robust, -1 to 600 bar, all industries
<b>Pressure gauges with transmitter</b>			
MA32	24	Analog display, 4-20mA, 0-10V outputs	All industries
ME01	24	Digital display, 4-20mA output	All industries
LE3	28	Digital display, 4-20mA output	General industry
<b>Test pressure gauges</b>			
9620	26	All stainless steel, Ø 100, 160, 250, -1 to 1000 bar	Calibration, test, class 0.6, 0.25 (0.1 in option)
<b>Digital and test pressure gauges</b>			
EC2	27	-1 to 30 bar and 0 to 300 bar, class 0.5	Calibration, test
LE2	27	-1 to 700 bar, class 0.2	Calibration, test
G	28	30 to 300 mbar, class 0.2	Calibration, test
LE1	28	PEAK function, -1 to 1000 bar, class 0.2	Pressure peaks recording
LEX1	28	Very high accuracy, -1 to 1000 bar, class 0.05	Calibration, test, accuracy up to 0.01%
	25	<b>Pressure gauges options</b>	
	64	<b>Pressure gauges dimensions &amp; weights</b>	

Series	P 29	ACCESSORIES FOR PRESSURE INSTRUMENTS	Applications
	29	Siphons, capillaries, sealing washers	Temperature reduction, remote connection
	30	Gauge cocks, gauge valves, shut-off valves	To isolate pressure instruments
	31	Valves, manifolds 2, 3, 5 ways	Chemical, petrochemical

Series	P 33	DIAPHRAGM SEALS	Applications
1510	33	All welded, all stainless steel	Media such as paint, grease, glue
1515	33	All welded, economical version	Water, waste water, oil, pesticides
7470 +	34	Pressure gauges mounted on sanitary seals	Food, pharmaceutical industries
1520-1521-1522		Clamp, SMS or DIN types	
1520-1521-1522	35	Clamp, SMS nut, DIN nut sanitary seals	Food, pharmaceutical industries
1530	37	With threaded connection	All industries, water treatment, paper
BF-BRF-BUSF	38	With flange connection	Chemical, petrochemical, EN 1092-1, ASME B16.5

Series	P 26	CALIBRATION, TEST	Applications
9620	26	Test gauges, all SS, Ø 100, 160, 250	Calibration, test, class 0.6, options : 0.25, 0.1
EC2-LE2	27	Digital pressure gauges, class 0.5 and 0.2	Calibration, test, -1 to 700 bar
LE1-LE3-G-LEX1	28	Digital pressure gauges, class up to 0.01	Calibration, test, -1 to 1000 bar, 30 to 300 mbar
RX-RPP	62	Portable chart recorders	Chart recording, 24h or 7 days

Series	P 42	THERMOMETERS	Applications
<b>Thermometers with rigid stem</b>			
4220	42	Bimetal, all stainless steel, sliding connection	Chemical, petrochemical, food
4210	43	Bimetal, all stainless steel, adjustable angle	Chemical, petrochemical, food
4300	44	Gas actuated, all stainless steel	Chemical, petrochemical, food
<b>Thermometers with capillary</b>			
4320	46	Gas actuated, all stainless steel	Chemical, petrochemical, food
<b>Thermowells</b>			
Series	P 50	PRESSURE & TEMPERATURE SWITCHES	Applications
<b>Pressure switches</b>			
B4-B7	50	Very rugged, -1 to 210 bar, ATEX version	Chemical, petrochemical, water treatment
<b>Temperature switches</b>			
T4-T7	52	With capillary, -40°C to 400°C, ATEX version	Chemical, petrochemical, industrial equipments
Series	P 54	PRESSURE TRANSMITTERS	Applications
<b>Pressure transmitters</b>			
8040	54	G1/4 connection, -1 to 1000 bar, class 0.5	General industry, mobile machinery
8060	55	G1/2 connection, -1 to 600 bar, class 0.5	General industry, other ranges up to 7000 bar
8050	56	G1/4 or G1/2 connection, -1 to 400 bar, class 1	General industry, OEM
8020	57	Flush diaphragm, -1 to 400 bar	Pasty, viscous media
<b>Pressure gauges with transmitter</b>			
ME01	24	Digital pressure gauges, 4-20mA output	All industries, -1 to 60 bar
MA32	24	Analog pressure gauges, 4-20mA or 0-10V output	All industries, -1 to 400 bar
LE3	28	Digital pressure gauges, 4-20mA output, accuracy 0.2%	High accuracy, -1 to 700 bar
Series	P 58	TEMPERATURE PROBES AND TRANSMITTERS	Applications
<b>Temperatures probes</b>			
2000-2050	58	Pt100 head type probes	All industries, -50°C to 450°C, ATEX in option
2500	60	Pt100 probes with cable connection	All industries, -50°C to 220°C
2010-2510	61	Thermocouple probes, head or with cable types	All industries, -50°C to 400°C, others up to 1600°C
<b>Temperature transmitters</b>			
2100	59	Pt100 head type with 4-20mA converter	All industries, -50°C to 450°C, ATEX, HART® protocol
<b>Accessories</b>			
<b>Thermowells</b>			
Series	P 62	PORTABLE CHART RECORDERS	Applications
RX-RPP	62	Chart recorders, pressure and/or temperature	All industries, chart 24h or 7 days
4900	63	Drum chart recorders, temperature, pressure, humidity	Laboratories, drum chart, 24h or 7 days
P 64		PRESSURE GAUGES DIMENSIONS & WEIGHTS	

# Pressure gauges

## ABS case

### 3100 Series - dry

ABS case pressure gauges, CITEC 3100 Series, are especially designed for pneumatic and OEM applications

Ø 40, 50, 63

#### Product specifications

. Pressure range	0 to 25 bar
. Accuracy class	2.5
. Pressure element	bronze C tube
. Movement	brass
. Case	black plastic
. Window	polycarbonate
. Socket	brass
. Connection	G1/8 or G1/4 according to Ø (BSPT for 12 bar)
. Dial	white aluminium, black lettering
. Pointer	black aluminium or plastic
. Protection	IP43
. Operating temperature	ambient : -20°C to 60°C process : 0°C to 60°C



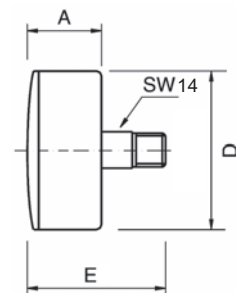
#### Order codes, back connection



Measuring range	Ø 40	Ø 50		Ø 63
	G1/8 dry	G1/8 dry	G1/4 dry	G1/4 dry
0 1 bar	450 409	450 469	450 501	450 629
0 1.6 bar	450 410	450 470	450 502	450 630
0 2.5 bar	450 420	450 475	450 505	450 640
0 4 bar	450 430	450 480	450 506	450 650
0 6 bar	450 440 (1)	450 485	450 510	450 660
0 10 bar	450 450 (1)	450 490 (1)	450 520	450 670
0 12 bar	450 451*(1)	450 491*	450 521*	
0 16 bar	450 460	450 495	450 522	450 680
0 25 bar	450 461	450 496	450 523	450 690

\* BSPT thread

(1) bar/psi scale : add **P** at the end of the order code



Ø	A	D	E	Weight (kg)
40	26	40	46	0.040
50	27	50	49	0.070
63	29	62	53	0.115



# Pressure gauges steel case 6000 Series - dry

Steel case pressure gauges, CITEC 6000 Series, are especially suitable for general industry and pneumatic applications

Ø 40, 50, 63, 80, 100

## Product specifications

. Pressure range	-1 to 60 bar
. Accuracy class	1.6
. Design	according to EN 837-1
. Pressure element	≤ 40 bar : bronze C tube ≥ 60 bar : helical bronze tube
. Movement	brass
. Case	black steel
. Bezel	black aluminium, crimped onto the case
. Front flange	black brass
. Window	polycarbonate
. Socket	brass
. Connection	G1/8, G1/4 or G1/2 according to Ø
. Dial	white aluminium, black lettering
. Pointer	black aluminium
. Dimensions	see dimensions page
. Protection	IP43
. Operating temperature	ambient : -25°C to 60°C process : ≤ 40 bar -20°C to 60°C ≥ 60 bar -30°C to 100°C



## Order codes, bottom connection



### 6001 Model

Measuring range	Ø 40	Ø 50	Ø 63	Ø 80		Ø 100
	G1/8 dry	G1/4 dry	G1/4 dry	G1/4 dry	G1/2 dry	G1/2 dry
-1 0 bar	400 098	400 153	400 171	400 261	400 861	400 316
-800mmHg 0 bar		400 169				
0 0.6 bar				400 260	400 860	400 315
0 1 bar	400 100	400 154	400 172	400 262	400 862	400 317
0 1.6 bar	400 110	400 155	400 173	400 263	400 863	400 318
0 2.5 bar	400 120	400 156	400 174	400 264	400 864	400 320
0 4 bar	400 130*	400 157*	400 175	400 265	400 865	400 330
0 6 bar	400 140*	400 160*	400 176	400 270	400 866	400 340
0 10 bar	400 150*	400 158*	400 177	400 280	400 867	400 350
0 16 bar	400 151	400 159	400 178	400 290	400 868	400 360
0 25 bar	400 152	400 161	400 179	400 300	400 869	400 370
0 40 bar			400 181	400 310	400 881	400 380
0 60 bar			400 182		400 311	400 390

\* bar/psi scale : add **P** at the end of the order code

## Options

- . Other measuring ranges : see 7110 Series
- . bar/psi scale : Ø 40 and 50 for 4, 6, 10 bar : add **P** at the end of the order code  
Ø 63 : see 2100H Series  
Ø 100 : see 7110 Series
- . Cleaning for oxygen : Ø 40 and 50 : add **X** at the end of the order code
- . Glass window : Ø 40, 50, 63 : replace order code 400 xxx by **440 xxx**  
other Ø : see 7470 Series

## Order codes, back connection



### 6004 Model

Measuring range		Ø 40		Ø 50		Ø 63	Ø 80		Ø 100
		G1/8 dry	G1/8 dry	G1/4 dry	G1/4 dry	G1/4 dry	G1/2 dry	G1/2 dry	
-1	0 bar	400 399	400 467	400 499	400 671	400 734	400 870	400 746	
-800mmHg	0 bar								
0	1 bar	400 400	400 469	400 502	400 672	400 736	400 872	400 748	
0	1.6 bar	400 410	400 470	400 503	400 673	400 737	400 873	400 749	
0	2.5 bar	400 420	400 472	400 505	400 674	400 738	400 874	400 750	
0	4 bar	400 430*	400 480	400 506*	400 675	400 739	400 875	400 760	
0	6 bar	400 440*	400 481	400 510*	400 676	400 740	400 876	400 770	
0	10 bar	400 450*	400 490	400 520*	400 677	400 741	400 877	400 780	
0	16 bar	400 460	400 491	400 522	400 678	400 742	400 878	400 790	
0	25 bar		400 492	400 523	400 679	400 743	400 879	400 800	
0	40 bar				400 681	400 744	400 880	400 810	
0	60 bar				400 682			400 820	

\* bar/psi scale : add **P** at the end of the order code

## Order codes, front flange



### 6006 Model

1- select 6004 Model order code

2- replace order code 400 xxx by **420 xxx**

#### Example

6004 Model order code Ø 63, G1/4, 0-10 bar : 400 677

becomes 6006 Model order code (front flange) : 420 677

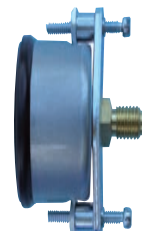


## Order codes for mounting brackets

Ø	Ring	U-Clamp
40	401 730	
50	401 740	
63	401 760	401 761
80	401 770	
100	401 780	



with ring



with U-Clamp

## Options

. Other measuring ranges : see 7110 Series

. **bar/psi** scale : Ø 40 and 50 for 4, 6, 10 bar : add **P** at the end of the order code

Ø 63 : see 2100H Series

Ø 100 : see 7110 Series

. **Cleaning for oxygen** : Ø 40 and 50 : add **X** at the end of the order code

. **Glass window for pressure gauge without flange** : Ø 40, 50, 63 : replace order code 400 xxx by **440 xxx**

other Ø : see 7470 Series

. **Glass window for pressure gauge with flange** : Ø 40, 50, 80 not available

Ø 63 and 100 : see 7470 Series

# Pressure gauges for regulators 6100 Series - dry

Pressure gauges for regulators, stainless steel case, CITEC 6100 Series, are designed for pneumatic valves, transmitters and pressure regulators

Ø 40, 50, triple scale : bar, kg/cm<sup>2</sup>, psi

## Product specifications

. Pressure range	2 to 11 bar, kg/cm <sup>2</sup> , psi
. Accuracy class	2.5
. Pressure element	bronze C tube
. Movement	brass
. Case	304 stainless steel
. Window	glass
. Socket	brass, nickel plated
. Connection	1/8NPT or 1/4NPT according to Ø
. Dial	white aluminium triple scale (bar, kg/cm <sup>2</sup> , psi)
. Pointer	black aluminium
. Protection	IP43
. Operating temperature	ambient : -25°C to 60°C process : -20°C to 70°C

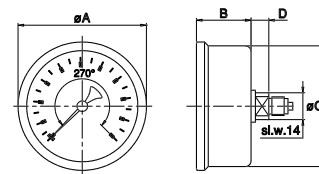


## Order codes, back connection



### 6104 Model

Measuring range	Ø 40		Ø 50	
	1/8NPT	1/4NPT	1/8NPT	1/4NPT
0 2 bar	404 500	404 550	404 600	404 650
0 4 bar	404 510	404 560	404 610	404 660
0 7 bar	404 520	404 570	404 620	404 670
0 11 bar	404 530	404 580	404 630	404 680



Ø	A	B	C	D	Weight (kg)
40	44	27.0	40	7	0.075
50	53	27.5	50	7	0.090

# OEM pressure gauges stainless steel case 2100 Series - filled

OEM pressure gauges, stainless steel case, glycerin filled, CITEC 2100 Series, are especially suitable for hydraulics, pumps, vehicles, agricultural machinery.

Ø 50, 63, 100

## Product specifications

. Pressure range	-1 to 600 bar
. Accuracy class	1.6
. Design	according to EN837-1
. Pressure element	≤ 40 bar : bronze C tube ≥ 60 bar : helical bronze tube
. Movement	brass
. Case	304 stainless steel
. Bezel	304 stainless steel crimped onto the case
. Front flange	304 stainless
. Window	polycarbonate
. Socket	brass
. Connection	G1/4 ou G1/2 according to Ø
. Dial	white aluminium or plastic, black lettering
. Pointer	black aluminium or plastic
. Dimensions	see dimensions page
. Protection	IP65
. Filling liquid	glycerin
. Operating temperature	ambient : -20°C to 70°C process : -10°C to 70°C



## Order codes



Bottom connection  
2101 Model



Back connection  
2104 Model



Front flange  
2106 Model

Measuring range	Bottom connection 2101 Model			Back connection 2104 Model			Front flange 2106 Model
	Ø 50 G1/4 filled	Ø 63 G1/4 filled	Ø 100 G1/2 filled	Ø 50 G1/4 filled	Ø 63 G1/4 filled	Ø 100 G1/2 filled	Ø 63 G1/4 filled
-1 0 bar		461 091	461 245	461 343	461 375		461 629
-1 1.5 bar		461 126	461 241		461 370		461 629
-1 3 bar		461 127	461 242				461 629
-1 5 bar		461 128	461 243		461 377		461 629
-1 9 bar		461 129	461 244				461 629
0 1 bar	461 074	461 088	461 246	461 345	461 378	461 516	461 650
0 1.6 bar	461 075	461 089	461 247	461 346	461 379	461 517	461 651
0 2.5 bar	461 076	461 090	461 248	461 347	461 380	461 518	461 652
0 4 bar	461 077	461 100	461 249	461 348	461 390	461 519	461 653
0 6 bar	461 078	461 110	461 250	461 349	461 400	461 520	461 654
0 10 bar	461 079	461 120	461 260	461 350	461 410	461 530	461 655
0 16 bar	461 080	461 130	461 270	461 351	461 420	461 540	461 656
0 25 bar	461 081	461 140	461 280	461 352	461 430	461 550	461 657
0 40 bar	461 082	461 150	461 290	461 353	461 440	461 560	461 658
0 60 bar	461 083	461 160	461 300	461 354	461 450	461 570	461 659
0 100 bar	461 084	461 170	461 310	461 355	461 460	461 580	461 660
0 160 bar	461 085	461 180	461 320	461 356	461 470	461 590	461 661
0 250 bar	461 086	461 190	461 330	461 357	461 480	461 600	461 662
0 315 bar	461 087	461 200	461 340	461 358	461 490	461 610	461 663
0 400 bar		461 210	461 341		461 500	461 611	461 664
0 600 bar		461 220	461 342		461 510	461 612	461 665

## Order codes for mounting brackets

Ø	U-Clamp
50	401 750
63	461 760N

### Option

. bar/psi scale Ø 63 : see 2100H Series

OEM pressure gauges, stainless steel case, glycerin filled, CITEC 2100H Series, are especially suitable for hydraulics, pumps, vehicles, agricultural machinery.

Ø 63, bar/psi scale

# OEM pressure gauges stainless steel case, filled 2100H Series - bar/psi

## Product specifications

. Pressure range	-1 to 600 bar, bar/psi scale
. Accuracy class	1.6
. Design	according to EN 837-1
. Pressure element	≤ 40 bar : bronze C tube, ≥ 60 bar : helical bronze tube
. Movement	brass
. Case	304 stainless steel
. Bezel	304 stainless steel crimped onto the case
. Front flange	304 stainless steel
. Window	polycarbonate
. Socket	brass
. Connection	G1/4
. Dial	white aluminium or plastic, black lettering for bar, red for psi
. Pointer	black aluminium or plastic
. Dimensions	see dimensions page
. Protection	IP65
. Filling liquid	glycerin
. Operating temperature	ambient : -20°C to 70°C process : -10°C to 70°C



## Order codes



**Bottom**  
2101 Model



**Back**  
2104 Model



**Front flange**  
2106 Model

Measuring range bar/psi scale	Ø 63 G1/4 filled	Ø 63 G1/4 filled	Ø 63 G1/4 filled
-1 0 bar	463 091	463 375	463 629
0 1 bar	463 088	463 378	463 650
0 1.6 bar	463 089	463 379	463 651
0 2.5 bar	463 090	463 380	463 652
0 4 bar	463 100	463 390	463 653
0 6 bar	463 110	463 400	463 654
0 10 bar	463 120	463 410	463 655
0 16 bar	463 130	463 420	463 656
0 25 bar	463 140	463 430	463 657
0 40 bar	463 150	463 440	463 658
0 60 bar	463 160	463 450	463 659
0 100 bar	463 170	463 460	463 660
0 160 bar	463 180	463 470	463 661
0 250 bar	463 190	463 480	463 662
0 315 bar	463 200	463 490	463 663
0 400 bar	463 210	463 500	463 664
0 600 bar	463 220	463 510	463 665

For panel mounting, use the U-clamp **461 760N**

# Pressure gauges stainless steel case 7110 dry - 7210 filled

Stainless steel case pressure gauges, CITEC 7110-7210 Series, are very robust and suitable for hydraulics, pneumatics and general industrial applications

Ø 40, 63, 100, watertight case, fillable

## Product specifications

. Pressure range	-1 to 1000 bar	
. Accuracy class	1 for Ø 100 ; 1.6 for Ø 40 and 63	
. Design	according to EN 837-1	
. Pressure element	≤ 40 bar : bronze C tube ≥ 60 bar : helical bronze tube	
. Movement	brass	
. Case	304 stainless steel, watertight	
. Bezel	304 stainless steel crimped onto the case	
. Front flange	304 stainless steel	
. Window	polycarbonate	
. Socket	brass + restrictor screw	
. Connection	G1/8, G1/4 or G1/2 according to Ø	
. Dial	white aluminium, black lettering	
. Pointer	black aluminium	
. Dimensions	see dimensions page	
. Protection	IP65	
. Filling liquid	glycerin	
. Operating temperature	dry	filled
ambient :	-25°C to 60°C	-10°C to 60°C
process : ≤ 40 bar	-20°C to 60°C	-10°C to 60°C
≥ 60 bar	-30°C to 100°C	-10°C to 70°C



## Order codes, bottom connection



7111 Model (dry) - 7211 Model (filled)

Measuring range	Ø 40 G1/8		Ø 63 G1/4		Ø 100 G1/2	
	dry	filled	dry	filled	dry	filled
-1 0 bar	402 340	402 680	402 000	401 080	403 000	401 222
-800mmHg 0 bar				401 070		401 223
-1 1.5 bar			402 015	401 126		
-1 3 bar			402 016	401 127		
-1 5 bar			402 017	401 128		
-1 9 bar			402 018	401 129		
-1 15 bar			402 019	401 131		
0 1 bar	402 360	402 700	402 020	401 082	403 010	401 230
0 1.6 bar	402 370	402 710	402 030	401 086	403 012	401 235
0 2.5 bar	402 380	402 720	402 040	401 090	403 014	401 240
0 4 bar	402 390	402 730	402 050	401 100	403 016	401 245
0 6 bar	402 400	402 740	402 060	401 110	403 018	401 250
0 10 bar	402 410	402 750	402 070	401 120	403 020	401 260
0 16 bar	402 420	402 760	402 080	401 130	403 022	401 270
0 25 bar	402 430	402 770	402 090	401 140	403 024	401 280
0 40 bar	402 440	402 780	402 100	401 150	403 026	401 290
0 60 bar	402 450	402 790	402 110	401 160	403 028	401 300
0 100 bar	402 460	402 800	402 120	401 170	403 030	401 310
0 160 bar	402 470	402 810	402 130	401 180	403 032	401 320
0 250 bar	402 480	402 820	402 140	401 190	403 034	401 330
0 315 bar	402 485	402 825	402 145	401 200	403 035	401 340
0 400 bar	402 490	402 830	402 150	401 210	403 036	401 350
0 600 bar		402 840	402 160	401 220	403 037	401 360
0 1000 bar			402 165	401 221	403 038	401 361

# 7110 dry - 7210 filled

## Order codes, back connection



**7114 Model (dry) - 7214 Model (filled), Ø 40 and 63**



**\*7115 Model (dry) - 7215 Model (filled), Ø 100**

Measuring range	Ø 40		Ø 63		Ø 100	
	G1/8		G1/4		G1/2	
	dry	filled	dry	filled	dry	filled
-1 0 bar	402 510	402 850	402 170	401 370	403 040*	401 514*
-800mmHg 0 bar		402 869		401 371		401 515*
-1 1.5 bar			402 185	401 369		
-1 3 bar			402 186	401 367		
-1 5 bar			402 187	401 372		
-1 9 bar			402 188	401 373		
-1 15 bar			402 189	401 374		
0 1 bar	402 530	402 870	402 190	401 375	403 050*	401 516*
0 1.6 bar	402 540	402 880	402 200	401 368	403 052*	401 517*
0 2.5 bar	402 550	402 890	402 210	401 380	403 054*	401 518*
0 4 bar	402 560	402 900	402 220	401 390	403 056*	401 519*
0 6 bar	402 570	402 910	402 230	401 400	403 058*	401 520*
0 10 bar	402 580	402 920	402 240	401 410	403 060*	401 530*
0 16 bar	402 590	402 930	402 250	401 420	403 062*	401 540*
0 25 bar	402 600	402 940	402 260	401 430	403 064*	401 550*
0 40 bar	402 610	402 950	402 270	401 440	403 066*	401 560*
0 60 bar	402 620	402 960	402 280	401 450	403 068*	401 570*
0 100 bar	402 630	402 970	402 290	401 460	403 070*	401 580*
0 160 bar	402 640	402 980	402 300	401 470	403 072*	401 590*
0 250 bar	402 650	402 985	402 310	401 480	403 074*	401 600*
0 315 bar	402 655	402 988	402 315	401 490		401 601*
0 400 bar	402 660	402 990	402 320	401 500	403 076*	401 620*
0 600 bar			402 330*	401 510*	403 078*	401 621*
0 1000 bar				401 511*		401 622*

\* eccentric connection

## Order codes, back connection with front flange



**7116 Model (dry) - 7216 Model (filled)**



**\*7118 Model (dry) - 7218 Model (filled)**

- 1- select 7114-7214 Model or 7115-7215 Model order code
- 2- replace order code 40x xxx by **42x xxx**

### Example

7214 Model order code, Ø 63, G1/4, 0-10 bar : 401 410 becomes

7216 Model order code (front flange) : 421 410

## Order codes for mounting brackets

Ø	Ring	U-Clamp
40	401 730	
63	401 760	401 761
100	401 780	

## Options

- . bar/psi scale : see 2100H Series for Ø 63
- . NPT thread : see 7470 Series
- . Cleaning for oxygen on dry pressure gauge
- . Glass window for pressure gauge without flange : replace order code 40x xxx by **44x xxx**
- . Glass window for pressure gauge with flange, add **V** at the end of the order code : **42x xxxV** , Ø 40 not available
- . Diaphragm seals mounting : see diaphragm seals chapter
- . Bayonet ring bezel version : 7610 Series

# Pressure gauges all stainless steel 7470 dry - 7570 filled

All stainless steel pressure gauges, CITEC 7470-7570 Series, are designed for chemical, petrochemical, pharmaceutical, food, water treatment industries.

Ø 63, 100, 150, watertight and fillable case. ATEX in option

## Product specifications

. Pressure range	-1 to 1600 bar	
. Accuracy class	1 for Ø 100 and 150, 1.6 for Ø 63	
. Design	design and safety S1 according to EN 837-1	
. Pressure element	≤ 40 bar : AISI 316 stainless steel C tube ≥ 60 bar : AISI 316 stainless steel helical tube	
. Movement	stainless steel	
. Case	AISI 304 stainless steel with blow-out, 316 in option	
. Bezel	AISI 304 stainless steel, bayonet ring	
. Window	glass	
. Socket, connection	AISI 316 stainless steel, welded on the case for Ø 100, 150 G1/4 or G1/2 according to Ø or NPT	
. Dial	white aluminium, black lettering	
. Pointer	black aluminium	
. Dimensions, scale	see dimensions page	
. Protection	IP65	
. Filling liquid	glycerin	
. Operating temperature	dry	filled
	ambient :	-40°C to 60°C    -20°C to 60°C
	process (Ø 100-150) :	-40°C to 200°C    -20°C to 60°C
	process (Ø 63) :	-40°C to 60°C    -20°C to 60°C



## Order codes

7471 Model (dry) - 7571 Model (filled), bottom connection

Measuring range	Ø 63 G1/4		Ø 100 G1/2		Ø 150 G1/2	
	dry	filled	dry	filled	dry	filled
-1 0 bar	468 000	469 000	468 340	469 340	468 680	469 680
-1 1.5 bar	468 002	469 002	468 345	469 345	468 685	469 685
-1 3 bar	468 004	469 004	468 346	469 346	468 686	469 686
-1 5 bar	468 006	469 006	468 347	469 347	468 687	469 687
-1 9 bar	468 010	469 010	468 348	469 348	468 688	469 688
-1 15 bar	468 015	469 015	468 349	469 349	468 689	469 689
-1 24 bar	468 017	469 017	468 343	469 343	468 683	469 683
0 0.6 bar			468 350	469 350	468 690	469 690
0 1 bar	468 020	469 020	468 360	469 360	468 700	469 700
0 1.6 bar	468 030	469 030	468 370	469 370	468 710	469 710
0 2.5 bar	468 040	469 040	468 380	469 380	468 720	469 720
0 4 bar	468 050	469 050	468 390	469 390	468 730	469 730
0 6 bar	468 060	469 060	468 400	469 400	468 740	469 740
0 10 bar	468 070	469 070	468 410	469 410	468 750	469 750
0 16 bar	468 080	469 080	468 420	469 420	468 760	469 760
0 25 bar	468 090	469 090	468 430	469 430	468 770	469 770
0 40 bar	468 100	469 100	468 440	469 440	468 780	469 780
0 60 bar	468 110	469 110	468 450	469 450	468 790	469 790
0 100 bar	468 120	469 120	468 460	469 460	468 800	469 800
0 160 bar	468 130	469 130	468 470	469 470	468 810	469 810
0 250 bar	468 140	469 140	468 480	469 480	468 820	469 820
0 315 bar	468 145	469 145	468 485	469 485	468 825	469 825
0 400 bar	468 150	469 150	468 490	469 490	468 830	469 830
0 600 bar	468 160	469 160	468 500	469 500	468 840	469 840
0 1000 bar	468 162	469 162	468 502	469 502	468 842	469 842
0 1600 bar			468 504	469 504	468 844	469 844

### NPT thread

Add **N** at the end of the order code

### Options

. See next page



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## Order codes



## 7475 Model (dry) - 7575 Model (filled), back connection

Measuring range	Ø 63		Ø 100		Ø 150	
	G1/4		G1/2		G1/2	
	dry	filled	dry	filled	dry	filled
-1 0 bar	468 170	469 170	468 510	469 510	468 850	469 850
-1 1.5 bar	468 172	469 172	468 515	469 515	468 855	469 855
-1 3 bar	468 174	469 174	468 516	469 516	468 856	469 856
-1 5 bar	468 176	469 176	468 517	469 517	468 857	469 857
-1 9 bar	468 178	469 178	468 518	469 518	468 858	469 858
-1 15 bar	468 179	469 179	468 519	469 519	468 859	469 859
-1 24 bar	468 181	469 181	468 513	469 513	468 853	469 853
0 0.6 bar			468 520	469 520	468 860	469 860
0 1 bar	468 190	469 190	468 530	469 530	468 870	469 870
0 1.6 bar	468 200	469 200	468 540	469 540	468 880	469 880
0 2.5 bar	468 210	469 210	468 550	469 550	468 890	469 890
0 4 bar	468 220	469 220	468 560	469 560	468 900	469 900
0 6 bar	468 230	469 230	468 570	469 570	468 910	469 910
0 10 bar	468 240	469 240	468 580	469 580	468 920	469 920
0 16 bar	468 250	469 250	468 590	469 590	468 930	469 930
0 25 bar	468 260	469 260	468 600	469 600	468 940	469 940
0 40 bar	468 270	469 270	468 610	469 610	468 950	469 950
0 60 bar	468 280	469 280	468 620	469 620	468 960	469 960
0 100 bar	468 290	469 290	468 630	469 630	468 970	469 970
0 160 bar	468 300	469 300	468 640	469 640	468 980	469 975
0 250 bar	468 310	469 310	468 650	469 650	468 985	469 980
0 315 bar	468 315	469 315	468 655	469 655	468 982	469 982
0 400 bar	468 320	469 320	468 660	469 660	468 990	469 985
0 600 bar	468 330	469 330	468 670	469 670	468 995	469 990
0 1000 bar	468 332	469 332	468 672	469 672	468 992	469 992
0 1600 bar			468 674	469 674	468 994	469 994

NPT thread, add **N** at the end of the order code

### With flange



Bottom connection, back flange  
7472 - 7572 Model



Back connection, front flange  
7478 - 7578 Model

- 1- select 7471-7571 or 7475-7575 Model order code
- 2- replace order code 46x xxx by **48x xxx**

#### Example

The order code of 7471, Ø 63, G1/4, 0-10 bar : 468 070 becomes in 7472 (back flange) : 488 070

The order code of 7475, Ø 63, G1/4, 0-10 bar : 468 240 becomes in 7478 (front flange) : 488 240

### Options

- . bar/psi scale, add **P** at the end of the order code, add **K** for kg/cm<sup>2</sup> or **H** for mmH<sub>2</sub>O
- . NPT thread, add **N** at the end of the order code
- . NPT thread + bar/psi scale, add **T** at the end of the order code
- . 1/8, 1/4, 1/2 or 3/8 thread, add 1/8, 1/4, 1/2 or 3/8 at the end of the order code
- . AISI 316 case, add **S** at the end of the order code, monel tube : add **M**
- . Silicone filling, add **I** at the end of the order code
- . Polycarbonate window, add **C** at the end of the order code
- . Safety glass, add **U** at the end of the order code
- . Cleaning for oxygen for dry pressure gauge, add **X** at the end of the order code
- . ATEX version, add **A** at the end of the order code
- . Max pointer, movable index
- . Adjustable micrometric pointer, add **J** at the end of the order code
- . Diaphragm seals mounting : see diaphragm seals chapter
- . Pneumatic receivers : see pressure gauges options

Safety pressure gauges, CITEC 8620 Series, are designed for chemical and petrochemical industries, with a solid front baffle wall and a full blow-out back according to EN 837.1 safety S3. ATEX option

Ø 100, watertight and fillable case

## Safety pressure gauges all stainless steel 8620 Series S

### Product specifications

. Pressure range	-1 to 1600 bar	
. Accuracy class	1 for Ø 100 and 150, 1.6 for Ø 63	
. Design	design and safety S3 according to EN 837-1	
. Pressure element	≤ 60 bar : 316 stainless steel C tube ≥ 100 bar : 316 stainless steel helical tube	
. Movement	stainless steel	
. Case	AISI 304 stainless steel with a solid front baffle wall and a full blow-out back. AISI 316 stainless steel case in option	
. Bezel	AISI 304 stainless steel, bayonet ring	
. Flange	AISI 304 stainless steel	
. Window	safety glass	
. Connection	AISI 316 SS, G1/4 or G1/2 according to Ø, NPT in option	
. Dial	white aluminium, black lettering	
. Pointer	black aluminium, adjustable	
. Protection	IP65	
. Filling liquid	glycerin	
. Operating temperature	dry	filled
	ambient :	-40°C to 60°C    -25°C to 60°C
	process :	-40°C to 200°C    -25°C to 60°C



### Order codes, bottom connection

8621 Model (dry) - 8721 Model (filled)



Measuring range	Ø 100 G1/2	
	dry	filled
-1 0 bar	470 340	471 340
-1 1.5 bar	470 345	471 345
-1 3 bar	470 346	471 346
-1 5 bar	470 347	471 347
-1 9 bar	470 348	471 348
-1 15 bar	470 349	471 349
-1 24 bar	470 343	471 343
0 0.6 bar	470 350	471 350
0 1 bar	470 360	471 360
0 1.6 bar	470 370	471 370
0 2.5 bar	470 380	471 380
0 4 bar	470 390	471 390
0 6 bar	470 400	471 400
0 10 bar	470 410	471 410
0 16 bar	470 420	471 420
0 25 bar	470 430	471 430
0 40 bar	470 440	471 440
0 60 bar	470 450	471 450
0 100 bar	470 460	471 460
0 160 bar	470 470	471 470
0 250 bar	470 480	471 480
0 315 bar	470 485	471 485
0 400 bar	470 490	471 490
0 600 bar	470 500	471 500
0 1000 bar	470 510	471 510
0 1600 bar	470 520	471 520

#### Ø 63 and 150, bottom connection

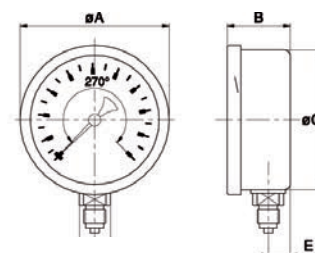
See 7470 Series : for dry version, replace 468 xxx by **470 xxx**  
for filled version, replace 469 xxx by **471 xxx**

#### Ø 100, back connection

See 7470 Series : for dry version, replace 468 xxx by **470 xxx**  
for filled version, replace 469 xxx by **471 xxx**

#### Options

- . bar/psi scale, add **P** at the end of the order code
- . NPT thread, add **N** at the end of the order code
- . NPT thread + bar/psi scale, add **T** at the end of the order code
- . 316 stainless steel case, add **S** at the end of the order code
- . ATEX version, add **A** at the end of the order code
- . High pressure version up to 7000 bar : 8640 Series



Ø	A	B	C	E	Weight (kg)
63	68	40	63	30	0.200
100	110	63	100	30	0.650
150	160	64	149	30	1.200

Process pressure gauges, CITEC 9640 Series, are designed for chemical and petrochemical industries, with a solid front baffle wall and a full blow-out back ATEX option

## Process pressure gauges, phenolic case, all SS 9640 Series

Ø 4.5" (130mm) according to ANSI B 40.1 and ASME B40.100

### Product specifications

. Pressure range	-1 to 1600 bar	
. Accuracy class	0.5 (grade 2A, ASME B40.100)	
. Design	according to ANSI B40.1	
	safety S3 according to EN 837-1	
. Pressure element	≤ 60 bar : 316 stainless steel C tube	
	≥ 100 bar : 316 stainless steel helical tube	
. Movement	stainless steel	
. Case	phenolic (glass fiber filled polypropylene) with a solid front baffle wall and a full blow-out back	
	screwed	
. Bezel	screwed	
. Window	safety glass	
. Socket, connection	AISI 316 stainless steel 1/2NPT, G1/2 in option	
. Dial	white aluminium, black lettering	
. Pointer	black aluminium, readjustable	
. Protection	IP65	
. Filling liquid	glycerin	
. Operating temperature	dry	filled
	ambient : -40°C to 60°C	-25°C to 60°C
	process : -40°C to 200°C	-25°C to 60°C



### Order codes, bottom connection

8645 Model (dry) 8745 (filled)



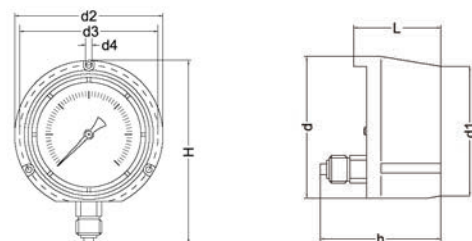
Measuring range	Ø 4,5" 1/2NPT	
	dry	filled
-1 0 bar	476 340N	477 340N
-1 1.5 bar	476 345N	477 345N
-1 3 bar	476 346N	477 346N
-1 5 bar	476 347N	477 347N
-1 9 bar	476 348N	477 348N
-1 15 bar	476 349N	477 349N
-1 24 bar	476 343N	477 343N
0 0.6 bar	476 350N	477 350N
0 1 bar	476 360N	477 360N
0 1.6 bar	476 370N	477 370N
0 2.5 bar	476 380N	477 380N
0 4 bar	476 390N	477 390N
0 6 bar	476 400N	477 400N
0 10 bar	476 410N	477 410N
0 16 bar	476 420N	477 420N
0 25 bar	476 430N	477 430N
0 40 bar	476 440N	477 440N
0 60 bar	476 450N	477 450N
0 100 bar	476 460N	477 460N
0 160 bar	476 470N	477 470N
0 250 bar	476 480N	477 480N
0 315 bar	476 485N	477 485N
0 400 bar	476 490N	477 490N
0 600 bar	476 500N	477 500N
0 1000 bar	476 510N	477 510N
0 1600 bar	476 520N	477 520N

### Back connection

Replace 47x xxx by 48x xxx

### Options

- . BSP thread, remove **N** at the end of the order code
- . bar/psi scale, replace **N** by **T** at the end of the order code
- . BSP thread + bar/psi scale, add **P** at the end of the order code
- . ATEX version, add **A** at the end of the order code



Ø	d	d1	L	H	h	d2	d4	Weight
4.5"	148	129	86	180	130	137	6	0.8kg

# Low pressure gauges stainless steel case 2010 Series - dry

Low pressure gauges with stainless steel case, CITEC 2010 Series, are designed for low pressure measurement on neutral gases

Ø 63, 100, 160

## Product specifications

. Pressure range	-1000 to 1000 mbar
. Accuracy class	1.6
. Design	according to EN 837-3
. Overload limit	10xFS
. Pressure element	beryllium copper capsule
. Movement	brass
. Case	AISI 304 stainless steel
. Bezel	AISI 304 stainless steel, bayonet ring
. Flange	AISI 304 stainless steel
. Window	glass
. Socket	brass
. Connection	G1/4 or G1/2 according to Ø
. Readjustment	dial screw
. Dial	white aluminium, black lettering
. Dimensions	see dimensions page
. Protection	IP43
. Operating temperature	ambient : -20°C to 60°C process : -30°C to 70°C



## Order codes



## 2011 Model, bottom connection

Measuring range	Ø 63 G1/4 dry	Ø 100 G1/2 dry	Ø 160 G1/2 dry
-1000 0 mbar	410 235	410 415	410 615
-600 0 mbar	410 240	410 420	410 620
-400 0 mbar	410 250	410 430	410 630
-250 0 mbar	410 260	410 440	410 640
-160 0 mbar	410 270	410 450	410 650
-100 0 mbar	410 280	410 460	410 660
-60 0 mbar	410 290	410 470	410 670
-40 0 mbar	410 300	410 480	410 680
-25 0 mbar	410 310	410 490	410 690
0 25 mbar	410 320	410 500	410 700
0 40 mbar	410 330	410 510	410 710
0 60 mbar	410 340	410 520	410 720
0 100 mbar	410 350	410 530	410 730
0 160 mbar	410 360	410 540	410 740
0 250 mbar	410 370	410 550	410 750
0 400 mbar	410 380	410 560	410 760
0 600 mbar	410 390	410 570	410 770
0 1000 mbar	410 395	410 575	410 775

## Options

- . Other measuring ranges (compound ranges)
- . mmH<sub>2</sub>O scale, add **H** at the end of the order code
- . NPT thread, add **N** at the end of the order code
- . Other threads : 1/8, 3/8

## Order codes



### 2014 Model, back connection

Measuring range	Ø 63	Ø 100	Ø 160
	G1/4 dry	G1/2 dry	G1/2 dry
-1000 0 mbar	411 235	411 415	411 615
-600 0 mbar	411 240	411 420	411 620
-400 0 mbar	411 250	411 430	411 630
-250 0 mbar	411 260	411 440	411 640
-160 0 mbar	411 270	411 450	411 650
-100 0 mbar	411 280	411 460	411 660
-60 0 mbar	411 290	411 470	411 670
-40 0 mbar	411 300	411 480	411 680
-25 0 mbar	411 310	411 490	411 690
0 25 mbar	411 320	411 500	411 700
0 40 mbar	411 330	411 510	411 710
0 60 mbar	411 340	411 520	411 720
0 100 mbar	411 350	411 530	411 730
0 160 mbar	411 360	411 540	411 740
0 250 mbar	411 370	411 550	411 750
0 400 mbar	411 380	411 560	411 760
0 600 mbar	411 390	411 570	411 770
0 1000 mbar	411 395	411 575	411 775

## Order codes with flange



### 2012 Model, back connection back flange

- 1- select 2011 Model order code
- 2- replace order code 410 xxx by **416 xxx**

#### Example

The order code of 2011, Ø 63, G1/4, 0-100 mbar : 410 350 becomes in 2012 (back flange) : 416 350

**Nota** : not available for Ø 160



### 2016 Model, back connection front flange

- 1- select 2014 Model order code
- 2- replace order code 411 xxx by **417 xxx**

#### Example

The order code of 2014, Ø 63, G1/4, 0-100 mbar : 411 350 becomes in 2016 (front flange) : 417 350

**Nota** : not available for Ø 160

## Order codes for mounting brackets

Ø	Ring
63	401 760
100	401 780

## Options

- . Other measuring ranges (compound ranges)
- . **mmH<sub>2</sub>O** scale, add **H** at the end of the order code
- . **NPT** thread, add **N** at the end of the order code
- . Other threads : 1/8, 3/8

# Low pressure gauges all stainless steel 2020 Series - dry

Low pressure gauges, all stainless steel, CITEC 2020 Series, are designed for low pressure measurement on corrosive gases

Ø 63, 100, 160

## Product specifications

. Pressure range	-1000 to 1000 mbar
. Accuracy class	1.6
. Design	according to EN 837-3
. Overload limit	10xFS
. Pressure element	AISI 316 stainless steel capsule
. Movement	stainless steel
. Case	AISI 304 stainless steel
. Bezel	AISI 304 stainless steel, bayonet ring
. Flange	AISI 304 stainless steel
. Window	glass
. Socket	AISI 316 stainless steel
. Connection	G1/4 or G1/2 according to Ø
. Readjustment	dial screw
. Dial	white aluminium, black lettering
. Dimensions	see dimensions page
. Protection	IP43
. Operating temperature	ambient : -20°C to 90°C process : -30°C to 100°C



## Order codes



### 2021 Model, bottom connection

Measuring range	Ø 63 G1/4 dry	Ø 100 G1/2 dry	Ø 160 G1/2 dry
-1000 0 mbar	410 995	411 095	411 195
-600 0 mbar	411 000	411 100	411 200
-400 0 mbar	411 002	411 102	411 202
-250 0 mbar	411 004	411 104	411 204
-160 0 mbar	411 006	411 106	411 206
-100 0 mbar	411 008	411 108	411 208
-60 0 mbar	411 010	411 110	411 210
-40 0 mbar	411 012	411 112	411 212
-25 0 mbar	411 014	411 114	411 214
0 25 mbar	411 016	411 116	411 216
0 40 mbar	411 018	411 118	411 218
0 60 mbar	411 020	411 120	411 220
0 100 mbar	411 022	411 122	411 222
0 160 mbar	411 024	411 124	411 224
0 250 mbar	411 026	411 126	411 226
0 400 mbar	411 028	411 128	411 228
0 600 mbar	411 030	411 130	411 230
0 1000 mbar	411 032	411 132	411 232

## Options

- . Other measuring ranges (compound ranges)
- . **mmH<sub>2</sub>O** scale, add **H** at the end of the order code
- . AISI 316 stainless steel case, add **S** at the end of the order code
- . **NPT** thread, add **N** at the end of the order code
- . Other threads : 1/8, 3/8
- . Glycerin filled (only available starting at 100 mbar), add **E** at the end of the order code

## Order codes



### 2024 Model, back connection

Measuring range	Ø 63 G1/4 dry	Ø 100 G1/2 dry	Ø 160 G1/2 dry
-1000 0 mbar	411 035	411 135	411 174
-600 0 mbar	411 040	411 140	
-400 0 mbar	411 042	411 142	411 178
-250 0 mbar	411 044	411 144	411 180
-160 0 mbar	411 046	411 146	411 182
-100 0 mbar	411 048	411 148	411 184
-60 0 mbar	411 050	411 150	411 186
-40 0 mbar	411 052	411 152	411 188
-25 0 mbar	411 054	411 154	411 190
0 25 mbar	411 056	411 156	411 192
0 40 mbar	411 058	411 158	411 194
0 60 mbar	411 060	411 160	411 196
0 100 mbar	411 062	411 162	411 198
0 160 mbar	411 064	411 164	411 201
0 250 mbar	411 066	411 166	411 203
0 400 mbar	411 068	411 168	411 205
0 600 mbar	411 070	411 170	411 207
0 1000 mbar	411 072	411 172	411 209

## Order codes with flange



### 2022 Model

#### bottom connection, back flange

- 1- select 2021 Model order code
- 2- replace order code 411 xxx by **416 xxx**

#### Example :

The order code of 2021, Ø 63, G1/4, 0-100 mbar : 411 022 becomes in 2022 (back flange) : 416 022

**Nota** : not available for Ø 160



### 2026 Model

#### back connection, front flange

- 1- select 2024 Model order code
- 2- replace order code 411 xxx by **417 xxx**

#### Example :

The order code of 2024, Ø 63, G1/4, 0-100 mbar : 411 062 becomes in 2026 (front flange) : 417 062

**Nota** : not available for Ø 160

## Order codes for mounting brackets

Ø	Ring
63	401 760
100	401 780

## Options

- . Other measuring ranges (compound ranges)
- . **mmH<sub>2</sub>O** scale, add **H** at the end of the order code
- . AISI 316 stainless steel case, add **S** at the end of the order code
- . **NPT** thread, add **N** at the end of the order code
- . Other threads : 1/8, 3/8
- . Glycerin filled (only available starting at 100 mbar), add **E** at the end of the order code

All stainless steel differential pressure gauges, CITEC 7810 Series, are designed for differential pressure measurement in harsh environments and for corrosive media. Models with 45° bottom and back connections

Ø 150, ΔP : 60 mbar to 10 bar

## Differential pressure gauges all stainless steel 7810 Series

### Product specifications

. Pressure range	ΔP : 60 mbar to 10 bar
. Max static pressure	see table below
. Accuracy class	1.6
. Pressure element	AISI 316 stainless steel bellow
. Movement	stainless steel
. Case	AISI 304 stainless steel
. Bezel	AISI 304 stainless steel bayonet ring
. Window	glass
. Socket	AISI 316 stainless steel
. Connection	2xG1/2, NPT in option
. Protection	IP65
. Filling liquid	glycerin
. Operating temperature	dry : -40°C to 180°C filled : -20°C to 70°C



### Order codes

 **7811 Model** Bottom 45° <sup>16</sup>  
**7815 Model** Back

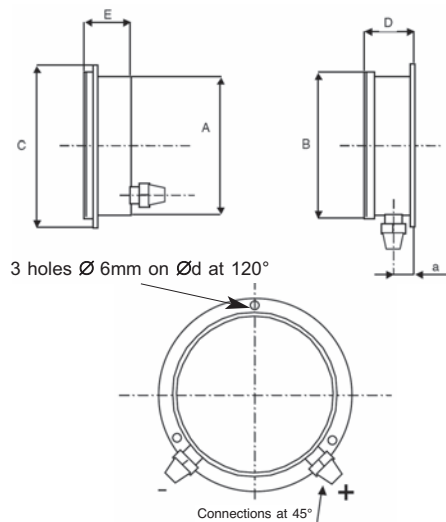
Measuring range	Max static pressure	Ø 150 2xG1/2	Ø 150 2xG1/2
0 60 mbar	4 bar	412 080	412 085
0 100 mbar	4 bar	412 100	412 105
0 200 mbar	4 bar	412 110	412 115
0 400 mbar	16 bar	412 120	412 125
0 600 mbar	16 bar	412 130	412 135
0 1 bar	16 bar	412 140	412 145
0 1.6 bar	40 bar	412 150	412 155
0 2.5 bar	40 bar	412 160	412 165
0 4 bar	40 bar	412 170	412 175
0 6 bar	100 bar	412 180	412 185
0 10 bar	100 bar	412 190	412 195

NPT : add **N** at the end of order code

### Options

Add the order code of the option to the order code of the selected pressure gauge.

Option	Order codes
Front flange, drill Ø 168mm	412 200
Back flange, drill Ø 168mm	412 210
Glycerin filling	412 230
1 contact min, starting at 0.6 bar	412 240
1 contact max, starting at 0.6 bar	412 241
2 contacts min, max, starting at 0.6 bar	412 250



Ø	A	B	C	D	E	G	a	d	Weight (kg)
150	151	166	176	52	48.5	54	17	168	1.4



# Differential pressure gauges all stainless steel BDT 13 Series

All stainless steel differential pressure gauges, CITEC BDT 13 Series, are mainly used for differential pressure measurement for chemical and petrochemical applications

Ø 100, 160, ΔP : 100 mbar to 25 bar, high static pressure up to 400 bar

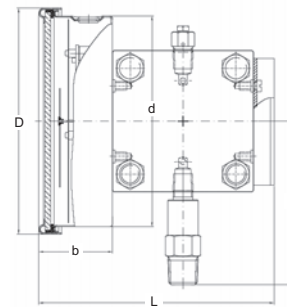
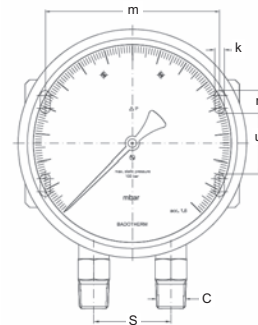
## Product specifications

. Pressure range	ΔP : 100 mbar to 25 bar	
. Max static pressure	100 bar 200 bar and 400 bar in option	
. Accuracy class	2.5	
. Pressure element	diaphragm, AISI 316 stainless steel	
. Movement	stainless steel	
. Case, bezel	AISI 304 stainless steel	
. Window	safety glass	
. Socket	AISI 316 stainless steel	
. Connection	2xG1/2, NPT in option	
. Mounting	mounting bracket for wall mounting, on Ø 2" pipe in option	
. Protection	IP65	
. Filling liquid	glycerin	
. Operating temperature	dry	filled
	ambient : -20°C to 60°C	-25°C to 60°C
	process : -10°C to 100°C	-25°C to 60°C



## Order codes

Measuring range ΔP	Max static pressure	Ø 100 G1/2	Ø 160 G1/2
0 100 mbar	100 bar	880 054	880 053
0 160 mbar	100 bar	880 048	880 049
0 250 mbar	100 bar	880 058	880 057
0 400 mbar	100 bar	880 060	880 059
0 600 mbar	100 bar	880 062	880 061
0 1 bar	100 bar	880 064	880 063
0 1.6 bar	100 bar	880 066	880 065
0 2.5 bar	100 bar	880 068	880 067
0 4 bar	100 bar	880 070	880 069
0 6 bar	100 bar	880 072	880 071
0 10 bar	100 bar	880 074	880 073
0 16 bar	100 bar	880 076	880 075
0 25 bar	100 bar	880 078	880 077



## Options

- . Static pressure up to 200 bar, add **D** at the end of order code
- . Static pressure up to 400 bar, add **Q** at the end of order code
- . NPT connection, add **N** at the end of order code
- . AISI 316 stainless steel case and bezel, add **S** at the end of order code
- . 1.6 class, add **CL16** at the end of order code
- . Electric contacts
- . Glycerin filled, add **E** at the end of order code
- . Mounting bracket for Ø 2" pipe mounting, add **T2** at the end of order code
- . Industrial Series from 4 mbar to 25 bar

Ø	D	d	b	H	L	S	m	n	u	k	Weight (kg)
100	110	100	50	116	165	54	132	42	16	7	6.9
160	160	150	52	116	167	54	132	42	16	7	8.3

# Pressure gauges with electric switch contacts 5600 Series

Pressure gauges with electric switch contacts, CITEC 5600 Series, are used for alarm and control

Ø 100, 1 or 2 contacts, -1 to 600 bar

## Product specifications

. Pressure range	-1 to 600 bar	
. Minimal pressure range	with 1 contact : 0.6 bar with 2 contacts : 1 bar	
. Pressure gauge used	all stainless steel 7470-7570 Model	
. Accuracy class	1 to 2.5 according to pointer/contacts position	
. Switching accuracy	snap-action contact : ±2%FS to 5%FS	
. Set point adjustment	set pointer adjusted by key	
. Electrical connection	DIN 43650/A, plug supplied	
. Bezel	304 stainless steel	
. Filling liquid	oil	
. Protection	IP65	
. Operating temperature	dry	filled
	ambient : -20°C to 100°C	-10°C to 60°C
	process : -20°C to 150°C	-10°C to 100°C



## Order codes

To define the order code of the pressure gauge with electric contacts :

- indicate the order code of the selected pressure gauge from 7470-7570 Series with Ø 100 by replacing 468 xxx by 478 xxx if dry, 469 xxx by 479 xxx if filled
- add the order codes below of the selected contact kit

Kit 1 snap-action contact		Kit 2 snap-action contacts	
Diagram	Ø 100	Diagram	Ø 100
1	437 200	4	437 220
2	437 205	5	437 225
3	437 210	6	437 230
		7	437 235

## Diagrams meaning

The contact is closed when the pointer is located on the dial's thick area.

## Option

- . ATEX EExibIICT6 contact version, add **A** at the end of the order code (not available for contact diagram n°3)

All stainless steel pressure gauges, 4-20mA output signal with analog or digital display, CITEC MA32 and ME01 Series, are designed for general industries, food, pharmaceutical applications

Ø 100, -1 to 400 bar

## Pressure gauges with 4-20mA output MA32 - ME01 Series

### MA32 specifications, analog display

. Pressure range	-1 bar to 400 bar
. Overload limit	1.3xFS
. Accuracy class	1
. Output signal	4-20mA 2 wires, 0-10V in option
. Power supply	24Vdc
. Operating temperature	ambient : 0°C to 60°C ; process : 0°C to 85°C
. Wetted parts	ceramic, 316 stainless steel, Viton o-ring
. Case	Ø 100, 304 stainless steel, safety glass
. Process connection	G1/2, 316L stainless steel
. Electrical connection	DIN 43650, plug supplied
. Protection	IP54



### ME01 specifications, digital display

. Pressure range	-1 to 60 bar
. Max static pressure	2xFS
. Display	4 digits
. Output signal	4-20mA 3 wires, 0-10V in option max load under 24Vdc : 500 Ω
. Power supply	24Vdc
. Accuracy (at 20°C)	±1%FS max
. Thermal drift	zero : 0.04%FS/°C, span : 0.01%FS/°C
. Operating temperature	ambient : 0°C to 60°C ; process : 0°C to 85°C
. Wetted parts	ceramic, 316 stainless steel, Viton o-ring
. Case	Ø 100, 304 stainless steel, safety glass
. Process connection	G1/2, 316 stainless steel
. Electrical connection	DIN 43650 connector, plug supplied
. Protection	IP65



### Order codes

#### MA32, analog display (4-20mA output)

Measuring range	MA 32 Series	Measuring range	MA 32 Series
-1 0 bar	875 102	0 6 bar	875 144
-1 1.5 bar	875 104	0 10 bar	875 146
-1 3 bar	875 106	0 16 bar	875 148
-1 5 bar	875 108	0 25 bar	875 152
-1 9 bar	875 110	0 40 bar	875 154
0 0.6 bar	875 132	0 60 bar	875 158
0 1 bar	875 134	0 100 bar	875 160
0 1.6 bar	875 136	0 160 bar	875 162
0 2.5 bar	875 140	0 250 bar	875 166
0 4 bar	875 142	0 400 bar	875 168

#### 0-10V output

add **V** at the end of order code

### Order codes

#### ME01, digital display (4-20mA output)

Measuring range	ME 01 digital	Measuring range	ME 01 digital
-1 0 bar	872 002	0 16 bar	872 048
-1 1.5 bar	872 004	0 25 bar	872 052
0 1 bar	872 034	0 40 bar	872 054
0 1.6 bar	872 036	0 60 bar	872 058
0 2.5 bar	872 040		
0 4 bar	872 042		
0 6 bar	872 044		
0 10 bar	872 046		

#### 0-10V output

add **V** at the end of order code

For options available on pressure gauges, add the following suffix(es) at the end of the standard order codes

## Thread

Options	Suffix
BSP thread	G
NPT thread	N
NPT thread and bar/psi scale	T
1/8, 1/4, 1/2 or 3/8 thread	1/8, 1/4, 1/2 or 3/8

## Scale

Options	Suffix
bar/psi scale	P
bar/psi scale and NPT thread	T
kg/cm <sup>2</sup> scale	K
kg/cm <sup>2</sup> /psi scale	KP
mmH <sub>2</sub> O scale	H
kPa scale	W
mmH <sub>2</sub> O/kPa scale	HW

### Pneumatic receiver

0.2-1 bar, linear 0-100%	L
0.2-1 bar, linear 0-10	D
0.2-1 bar, quadratic 0-100%	Q
0.2-1 bar, quadratic 0-10	R
3-15 psi, linear 0-100%	LP
3-15 psi, linear 0-10	DP
3-15 psi, quadratic 0-100%	QP
3-15 psi, quadratic 0-10	RP

## Material

Options	Suffix
AISI 316 case	S
Monel tube	M
Glass window	V
Safety glass window	U
Polycarbonate window	C
Glycerin filling	E
Silicone filling	I
Adjustable max pointer	J

## Mounting

Options	Suffix
Front flange	F
Front flange with mounting holes for $\varnothing$ 168, $\varnothing$ 178	respectively F168, F178
Back flange with mounting holes for $\varnothing$ 168, $\varnothing$ 178	respectively B168, B178
Case with U-clamp welded	Z

## Special use

Options	Suffix
Cleaning for oxygene	X
ATEX version	A

# Test pressure gauges all stainless steel 9620 Series

Test pressure gauges, all stainless steel, CITEC 9620 Series, enable test and calibration of pressure measuring equipments

Ø 100, 160, 250, 0.6 class, 0.25 and 0.1 class in option

## Product specifications

. Pressure range	-1 to 1000 bar
. Accuracy class	0.6 (0.25 and 0.1 in option) supplied with calibration certificate according to EN 837
. Pressure element	≤ 40 bar stainless steel C tube ≥ 60 bar stainless steel helical tube
. Movement	AISI 316 stainless steel, 0.1 class : bronze beryllium
. Case	AISI 304 stainless steel
. Pointer	black aluminium, knife edge
. Bezel	AISI 304 stainless steel, bayonet ring
. Window	acrylic
. Pressure connection	AISI 316 stainless steel, G1/2
. Dial	white aluminium with parallax mirror for Ø 160 and 250
. Protection	IP54, 0.1 class : IP44
. Operating temperature	ambient : -25°C to 60°C process : -30°C to 80°C
. Transport	a screw holds the mechanism for handling (Ø 160, 250)



## Order codes



### 9621 Model Bottom connection

Measuring range	Ø 100 G1/2	Ø 160 G1/2	Ø 250 G1/2	Graduation for all Ø
-1 0 bar		404 100	404 700	0.005 bar
0 1 bar		404 110	404 710	0.005 bar
0 1.6 bar	403 770	404 120	404 720	0.01 bar
0 2.5 bar	403 780	404 130	404 730	0.02 bar
0 4 bar	403 790	404 140	404 740	0.02 bar
0 6 bar	403 800	404 150	404 750	0.05 bar
0 10 bar	403 810	404 160	404 760	0.05 bar
0 16 bar	403 820	404 170	404 770	0.1 bar
0 25 bar	403 830	404 180	404 780	0.2 bar
0 40 bar	403 840	404 190	404 790	0.2 bar
0 60 bar	403 850	404 200	404 800	0.5 bar
0 100 bar	403 860	404 210	404 810	0.5 bar
0 160 bar	403 870	404 220	404 820	1 bar
0 250 bar	403 880	404 230	404 830	2 bar
0 400 bar	403 890	404 240	404 840	2 bar
0 600 bar	403 900	404 250	404 850	5 bar
0 1000 bar	403 910	404 260	404 860	5 bar

## Options

- . 0.25 accuracy class, only for Ø 160 and 250,  
add **H** at the end of the order code : **404 xxxH**
- . 0.1 accuracy class, only for Ø 250,  
add **HH** at the end of the order code : **404 xxxHH**
- . Other types of mounting

Digital pressure gauges, CITEC EC2 and LE2 Series, are accurate and easy to use. They are mainly used for test and calibration. Min/max function. ATEX version

## Digital pressure gauges EC2 - LE2 Series

-1 to 700 bar, class 0.2 or 0.5

### Operating mode

The pressure is measured and displayed twice per second. Top display indicates current pressure and bottom display indicates MIN or MAX pressure since the last RESET.

The ZERO-function allows to set any pressure value as a zero reference. Barometric pressure variations can thus be compensated. For gauge pressure measurements, activate "ZERO SET" at ambient pressure.

The factory setting of the zero for the range -1...3 bar and -1...30 bar is at vacuum (0 bar absolute). Thus by using the factory setting, it allows absolute pressure measurement.

### Product specifications

. <b>Pressure range</b>	-1 to 700 bar
. <b>Overload</b>	see table below
. <b>Accuracy</b> (0°C to 50°C) (linearity, hysteresis, repeatability)	EC2 : $\pm 0.5\%$ FS max at 20°C $\pm 1.0\%$ FS max from 0°C to 50°C LE2 : $\pm 0.1\%$ FS max from 0°C to 50°C
. <b>Display</b>	top : current pressure, EC2 : 4 digits, LE2 : 4.5 digits bottom : min or max pressure
. <b>Units</b>	bar, mbar/hPa, kPa, MPa, psi, kg/cm <sup>2</sup>
. <b>Power</b>	3V battery, CR 2430 type, 1400h continuous automatic turn-off after 15 min or continuous low battery indication for LE2 Series
. <b>Operating temperature</b>	0°C to 50°C
. <b>Storage temperature</b>	-20°C to 70°C
. <b>Pressure connection</b>	G1/4, brass swivel adapter supplied
. <b>Case</b>	reinforced plastic
. <b>Protection</b>	IP65
. <b>Dimensions, weight</b>	DxHxP : 59x95x32mm, 125g



EC2



LE2

### Order codes

Measuring range	Overload limit	EC2 class 0.5	LE2 class 0.2	Calibration certificate 6 pts
-1 3 bar*	10 bar		876 104	449 022
-1 30 bar*	60 bar	878 116	876 116	449 022
0 300 bar	400 bar	878 166	876 166	449 006
0 600 bar	900 bar			449 006
0 700 bar	900 bar		876 171	449 023

\*Measure with absolute pressure also possible

Calibration certificate by accredited laboratory

For EC2 : **449 048**

For LE2 : -1/3 and -1/30 bar : **449 038** , 0/300 and 0/700 bar : **449 039**

### Options

- . Carrying bag : order code **876 102**
- . Rubber protective cover : order code **054 077**
- . G1/4 fixed connection : **876 100**
- . ATEX version, add **A** at the end of order code, ExII1G EExialICT5
- . Diaphragm seal mounting (G1/4 fixed connection 876 100 to be used)

**Note** : pressure gauge should be protected from any pressure shock and off limit overloads

# Digital pressure gauges high accuracy, specials LE1 - LE3 - G - LEX1

Digital pressure gauges, CITEC LE1-LE3-G-LEX1 Series, are designed for high accuracy, MIN/MAX peaks detection (5000 measures per second), low pressure or 4-20mA output. Versatile instrument, easy to use, check-tests or calibration applications

-1 to 1000 bar and 30 mbar to 300 mbar  
Accuracy class 0.2 or 0.05, thermal drift included, option up to class 0.01

The pressure is measured twice per second and displayed. The top display indicates the actual pressure, the bottom display shows the MAX or MIN pressure since the last RESET.

- LE1 Series measures peaks pressure : the pressure is measured 5'000 times per second and is brought to the display twice per second. The top display shows the actual pressure, the bottom display the peak- (MAX.) or trough-pressure (MIN.).

- LE3 Series with 4-20mA output can be programmed with the front keys : executing ZERO when pressure is applied sets the analog output to 4 mA, executing FS when pressure is applied sets the analog output to 20 mA or by using the software.

- The ZERO-function allows to set any value as a new Zero reference. Barometric pressure variations can thus be compensated. The factory setting of the Zero for the ranges -1...2 bar to -1...30 bar is at vacuum (0 bar absolute). Thus by using the factory setting, it allows absolute pressure measurement.

. <b>Pressure range</b>	-1 to 1000 bar, overpressure : see table below
. <b>Accuracy</b> (linearity, hysteresis, repeatability)	LE1-LE3-G : $\pm 0,2\%FS$ max (0° to 50°C) LEX1 : $\pm 0,05\%FS$ max (10°C to 30°C), 0.025 and 0.01 in option
. <b>Display</b>	top : current pressure ; 4.5 digits, LEX1 : 5 digits bottom : min/max pressure, 4-20mA signal for LE3
. <b>Measuring rate</b>	mano mode : 2/sec, peak mode for LE1 : 5000/sec LE3 : up to 90/sec, display : 2/sec
. <b>Units</b>	bar, mbar/hPa, psi, kPa, Mpa, kg/cm <sup>2</sup> , in addition on LEX1 : cmH <sub>2</sub> O, mH <sub>2</sub> O, mmHg
. <b>Power supply</b>	3V battery type CR2430, 1400h continuous, 150h for peak mode automatic turn-off after 15mn or continuous activation low battery indication LE3 : 8-28Vdc via 4-20mA current loop
. <b>Temperature</b>	operating : 0°C to 50°C, storage : -10°C to 60°C
. <b>Pressure connection</b>	G1/4, 316L stainless steel
. <b>Electrical connection LE3</b>	Binder723 at back case for power and 4-20mA output, 2 wires



### Order codes

Measuring range	Overload limit	LE1 Peak mode class 0.2	LE3 4-20mA output class 0.2	G low pressure class 0.2	LEX1 high accuracy class 0.05	Calibration Certificate (1) 6 points
0 30 mbar	300 mbar			879 401		449 020
0 100 mbar	1 bar			879 402		449 020
0 300 mbar	3 bar			879 404		449 020
-1 2 bar*	3 bar				879 405	449 022
-1 3 bar*	10 bar	879 104	879 204			449 022
-1 20 bar*	30 bar				879 452	449 022
-1 30 bar*	60 bar	879 116	879 216			449 022
0 200 bar	300 bar				879 464	449 006
0 300 bar	400 bar	879 166	879 266			449 006
0 400 bar	600 bar				879 467	449 006
0 700 bar	700 bar	879 171	879 271			449 023
0 1000 bar	1000 bar	879 172	879 272		879 472	449 023
*Measure with absolute pressure also possible						(1) Calibration certificate for LEX1 and G Series
					Calibration certificate by accredited laboratory	449 011
					0 to 700 bar	449 038
					others ranges	449 039

### Options

- . Rubber protective cover : **879 300**
- . Diaphragm seal mounting
- . PC kit for LE3 : **879 310** with software for pressure gauge programming and reading
- . ATEX for LE1, add **A** at the end of the order code. ExII1G EExialICT5
- . LEX1 (except -1 +2 bar) accuracy 0.025, add **P** at the end of the order code ; accuracy 0.01, add **PP** at the end of the order code

**Note** : pressure gauge should be protected from any pressure shocks and off limit overloads

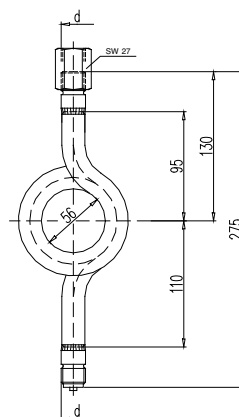
# Siphons Capillaries Sealing washers

## Siphons

Used to reduce fluid temperature.  
Recommended for steam.  
Pressure gauge's side with a swivel.

Max pressure according to temperature (according to DIN 16282)

Temperature	Max pressure
120°C	100 bar
300°C	80 bar
400°C	63 bar



## Trumpet-form according to DIN 16282

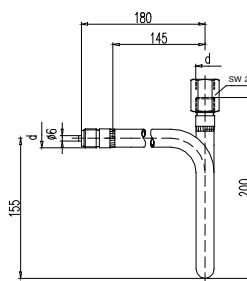
Material	Connection	Order code
steel	G1/2	405 700
316 stainless steel	G1/2	405 710

NPT connection : add **N** at the end of the order code

## U-form according to DIN 16282

Material	Connection	Order code
steel	G1/2	405 701
316 stainless steel	G1/2	405 711

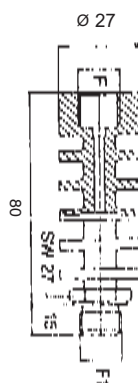
NPT connection : add **N** at the end of the order code



## Compact Model, recommended for pressure transmitters

Material	Max temperature	Connection	Order code
316 stainless steel	200°C	F, F1 G1/2	894 810

Max pressure : 400 bar



## Stainless steel capillaries

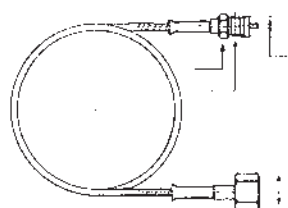
Allows remote connection between two pressure devices, especially between diaphragm seal and pressure gauge. Also used to cool fluid to be measured.

(about 60°C/m according to environment conditions)

Max pressure : 400 bar

Length	Connection	Order code
1m	G1/2	410 185
2m	G1/2	410 186
4m	G1/2	410 187

Other lengths and materials on request



## Sealing washers for pressure gauges

Material	Connection	Order code	Shape
Copper	G1/4	43 360	
Copper	G1/2	43 361	
Fiber	G1/4	43 362	
Fiber	G1/2	43 363	
PTFE	G1/4	43 368	
PTFE	G1/2	43 367	
Copper	G1/4	43 365	
Copper	G1/2	43 366	





# Gauge cocks Gauge valves

In any installation, it is advised to mount a valve upstream the measuring instrument so as to isolate it from the circuit and demount it without interrupting the operating system. All valves have a purge system.

## Gauge cocks, male-female

Max temperature : 50°C

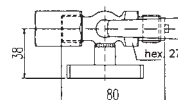
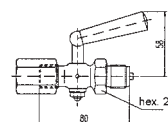
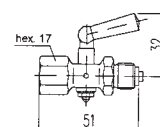
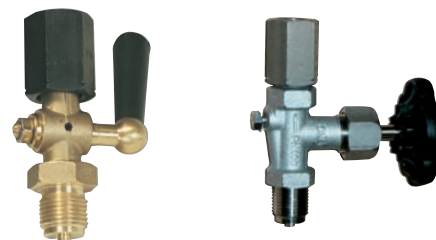
Material	Connection	Test flange DN 40	Max pressure	Order code
brass	G1/4	no	6 bar	405 765
brass	G1/4F	no	6 bar	405 766
brass	G1/4	no	16 bar	405 763
brass	G1/2	no	16 bar	405 764

### With adjusting nut

Material	Connection	Test flange DN 40	Max pressure	Order code
brass	G1/2	no	16 bar	405 740
stainless steel	G1/2	no	16 bar	405 743

### With adjusting nut and test flange

Material	Connection	Test flange DN 40	Max pressure	Order code
brass	G1/2	yes	16 bar	405 742
stainless steel	G1/2	yes	16 bar	405 745



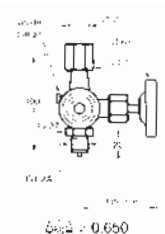
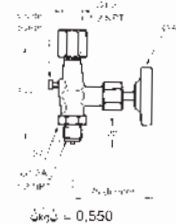
## Gauge valves, male-female

Max temperature : 120°C for brass ; 200°C for steel and stainless steel

Material	Connection	Test flange DN 40	Max pressure	Order code
brass	G1/2	no	250 bar	405 744
steel	G1/2	no	400 bar	405 746
stainless steel	G1/2	no	400 bar	405 748
stainless steel	1/2NPT	no	400 bar	405 747

### With test flange

Material	Connection	Test flange DN 40	Max pressure	Order code
brass	G1/2	yes	40 bar	405 750
steel	G1/2	yes	60 bar	405 752
stainless steel	G1/2	yes	60 bar	405 754



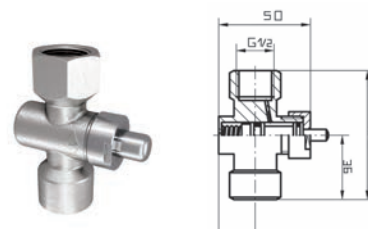
## Shut-off valves

Without purge system

Material	Connection	Temperature	Max pressure	Order code
nickel plated brass	G1/2	-20°C to 60°C	25 bar	405 762

### Other pressure accessories

- . Gauge protectors
- . Gauge snubbers



2 to 5 ways valves and manifolds are used for control, isolation, calibration and testing pressure measuring instruments.  
For chemical, petrochemical applications

## 2 ways valves 2, 3, 5 ways manifolds

### Product specifications

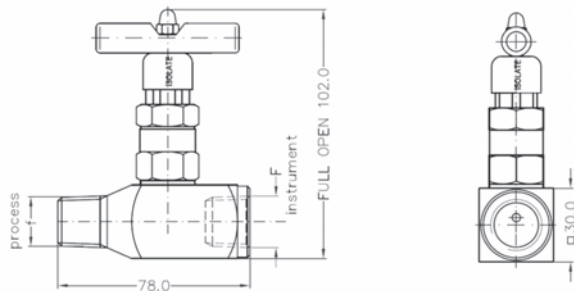
. Body	AISI 316 stainless steel
. Spindle/bonnet	AISI 316 stainless steel
. Gland packing	PTFE
. T-handle	AISI 316 stainless steel
. Operating temperature	up to 250°C
. Pressure	400 bar max at 38°C
. Connection	see table



### 2 ways valves

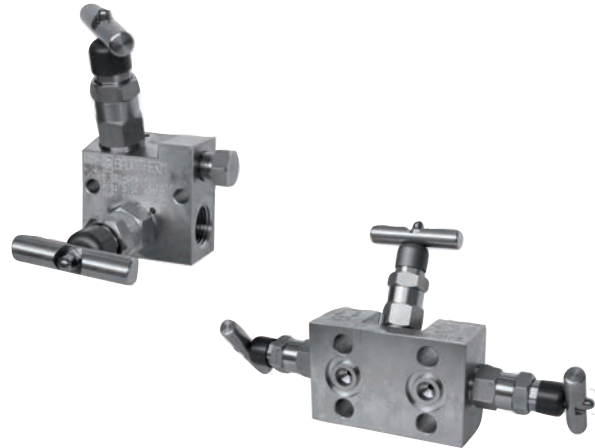


Inlet female	Outlet male	Order code
1/4NPT	1/4NPT	<b>BDT V910 1/4N</b>
G1/4	G1/4	<b>BDT V910 1/4</b>
1/2NPT	1/2NPT	<b>BDT V910 1/2N</b>
G1/2	G1/2	<b>BDT V910 1/2</b>



### Manifolds

Manifolds	Inlet	Outlet	Bleed	Order code
2 ways	1/2NPT	1/2NPT	1/4NPT	<b>BDTM 921</b>
3 ways	1/2NPT	DIN flange	n/a	<b>BDTM 931</b>
	1/2NPT	1/2NPT	n/a	<b>BDTM 934</b>
5 ways	1/2NPT	DIN flange	1/4NPT	<b>BDTM 955</b>



**Dimensions** : see next page

### Options

- . Mounting bracket for manifolds
- . Other types of mounting
- . Hastelloy, Monel versions
- . 2 ways valves with venting

# Manifolds

## 2, 3 and 5 ways

### Manifolds dimensions

Order code	Diagram	Dimensions
BDTM 921	<p>INSTRUMENT (P) VENT ISOLATE PROCESS</p>	<p>41.3±0.2 12.5 2xø7 64 34 32 16 4.77</p>
BDTM 931	<p>INSTRUMENT (D/P) ISOLATE PROCESS EQUALIZE ISOLATE PROCESS</p>	<p>43 98 11 12.5 32 64 19 38 5.05</p>
BDTM 934	<p>INSTRUMENT (D/P) ISOLATE PROCESS EQUALIZE ISOLATE PROCESS</p>	<p>86 43 32 64 16</p>
BDTM 955	<p>INSTRUMENT (D/P) ISOLATE PROCESS EQUALIZE ISOLATE PROCESS ISOLATE PROCESS</p>	<p>16 2.5 16 32 50 16 32</p>

## All welded diaphragm seals all stainless steel 1510 Series

All welded diaphragm seals, all stainless steel, CITEC 1510 Series, are designed for general industrial applications with media such as water, oil, grease, paint or glue

### Product specifications

. Pressure	min : -1      0 bar max : 0      600 bar
. Design	body : AISI 316L stainless steel diaphragm : AISI 316L stainless steel, welded
. Process temperature	-15°C to 150°C

### Order codes

Pressure gauge measuring range min                      max	Connections A and E	Ø	D	SW	F	Order code
-1    0 bar    to    0    1 bar	G1/4	50	42	41	6	410 151
	G1/2	50	56	41	8	410 161
-1    1,5 bar    to    -1    24 bar	G1/4	50	42	41	6	410 150
	G1/2	50	56	41	8	410 160
-0    2.5 bar    to    0    25 bar	G1/4	50	42	41	6	410 150
	G1/2	50	56	41	8	410 160
0    40 bar    to    0    160 bar	G1/4	40	42	36	6	410 170
	G1/2	40	56	36	8	410 180
0    60 bar    to    0    400 bar	G1/4	40	42	36	6	410 182
0    250 bar    to    0    600 bar	G1/2	60	58	36	8	410 181

### Order code of pressure gauge mounted on diaphragm seal

Pressure gauge order code + diaphragm seal order code

All welded diaphragm seals, economical version, with viton diaphragm, CITEC 1515 Series, are designed for general industrial applications with media such as water, waste water, oil, pesticides

### Product specifications

. Pressure	min : 0    6 bar, max : 0    60 bar
. Design	body : 303 stainless steel, brass insert diaphragm : viton
. Dimensions	ΔH after mounting : 1515 type : 38mm 1516 type : 30mm
. Process temperature	-10°C to 120°C

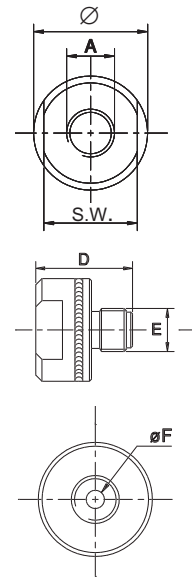
### Order codes

Pressure gauge measuring range min                      max	Connections gauge-medium	Order code
0    6 bar    to    0    60 bar	G1/4 - G1/4	410 145
0    6 bar    to    0    60 bar	G1/4 - G1/2	410 147

Nota : cannot be used for vacuum or compound pressure

### Order code of pressure gauge mounted on diaphragm seal

Pressure gauge order code + diaphragm seal order code



## All welded diaphragm seals 1515 Series



# Pressure gauges mounted on sanitary seals

## 7470 + 1520-1521-1522 Series

Sanitary diaphragm seals mounted on all stainless steel pressure gauges for food, pharmaceutical industries

Diaphragm seals according to ISO 2852, SMS 1145, DIN 11851

### Product specifications

. Design	. diaphragm : AISI 316L stainless steel, welded roughness : Ra≤0.8µm
	. nut : AISI 304L stainless steel
	. pressure gauge : all stainless steel, Ø 100 7470 Series, dry or filled
. Filling liquid	FDA approved oil
. Process temperature	-15°C to 150°C

### 7470 + 1520 Series

#### Dry pressure gauge Ø 100 + ISO 2852 clamp seal

Diaphragm seal	-1 3 bar	0 6 bar	0 10 bar	0 16 bar
DN38 (1)	482 570	482 571	482 572	482 573
DN51 (1)	482 574	482 575	482 576	482 577

(1) Be carefull : flange Ø 50.5mm for DN38, Ø 64mm for DN51

For filled pressure gauges : add L at the end of the order code

Material certificate 3.1B : 449 050

FDA conformity : 449 054

### 7470 + 1521 Series

#### Dry pressure gauge Ø 100 + SMS 1145 nut seal

Diaphragm seal	-1 3 bar	0 6 bar	0 10 bar	0 16 bar
DN38	482 580	482 581	482 582	482 583
DN51	482 584	482 585	482 586	482 587

For filled pressure gauges : add L at the end of the order code

Material certificate 3.1B : 449 050

FDA conformity : 449 054

### 7470 + 1522 series

#### Dry pressure gauge Ø 100 + DIN 11851 nut seal

Diaphragm seal	-1 3 bar	0 6 bar	0 10 bar	0 16 bar
DN40	482 590	482 591	482 592	482 593
DN50	482 594	482 595	482 596	482 597

For filled pressure gauges : add L at the end of the order code

Material certificate 3.1B : 449 050

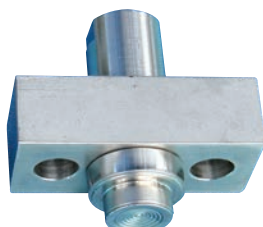
FDA conformity : 449 054

### Other diaphragm seals

In-line diaphragm seal



High pressure diaphragm seal  
Homogeniser flange



# Diaphragm seals

## Sanitary applications

### 1520 - 1521 - 1522 Series

Sanitary diaphragm seals according to ISO 2852 clamp, SMS 1145 nut or DIN 11851 nut are used for food and pharmaceutical industries  
To be used in sterile process and for hygienic applications  
Quick dismantling and cleaning

#### Product specifications

. Design	. top housing, endpiece : AISI 316L stainless steel . diaphragm : AISI 316L stainless steel, welded . clamp, nut : AISI 316L stainless steel . gasket : EPDM, option : viton, teflon
. Diaphragm roughness	Ra≤0.8µm
. Filling liquid	FDA approved oil
. Process temperature	-15°C to 150°C



#### Pressure range for pressure gauges according models

Model	Gauge pressure	Compound pressure
DN3/4"	0 4 to 0 25 bar	-1 +3 to -1 +24 bar
DN25	0 4 to 0 40 bar	-1 +3 to -1 +24 bar
DN32	0 4 to 0 40 bar	-1 +3 to -1 +24 bar
DN38	0 1 to 0 40 bar	-1 +3 to -1 +24 bar
DN40	0 1 to 0 40 bar	-1 0 to -1 +24 bar
DN50	0 1 to 0 25 bar	-1 0 to -1 +24 bar
DN51	0 1 to 0 25 bar	-1 0 to -1 +24 bar

#### ISO 2852 clamp type, 1520 Series

Model	Gauge connection	Process connection	Top housing	Accessories			Complete set*
				Endpiece	Clamp	Gasket	
<b>With endpiece to weld (1)</b>							
DN3/4"	G1/4	G1/4	to weld	410 217			
DN25 1"	G1/2	G1/2	to weld	410 216	410 204	410 202	410 203
DN38 1"1/2	G1/4	G1/4	to weld	410 212	410 206	410 200	410 209
DN38 1"1/2	G1/2	G1/2	to weld	410 215	410 206	410 200	410 209
DN51 2"	G1/4	G1/4	to weld	410 211	410 205	410 201	410 208
DN51 2"	G1/2	G1/2	to weld	410 210	410 205	410 201	410 208
<b>With threaded endpiece (1)</b>							
DN38 1"1/2	G1/4	G1/4	G1/4	410 212	410 224	410 200	410 209
DN38 1"1/2	G1/2	G1/2	G1/2	410 215	410 223	410 200	410 209
DN51 2"	G1/4	G1/4	G1/4	410 211	410 214	410 201	410 208
DN51 2"	G1/2	G1/2	G1/2	410 210	410 213	410 201	410 208

\* Complete set : top housing supplied with accessories

(1) Be carefull, DN : endpiece Ø to weld and not top housing ØB (see dimensions table)

#### Certificates

Material certificate 3.1B	449 050
Roughness certificate	449 052
Food contact certificate for glycerin	449 053
FDA food conformity certificate for seals filling liquid	449 054

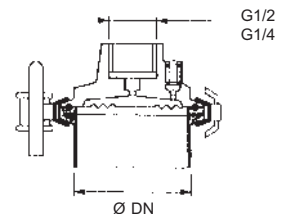
#### Options

- . Diaphragm roughness Ra≤0.4µm, add **R4** at the end of the order code, for Ra≤0.6µm, add **R6**
- . Electropolished diaphragm, add **P** at the end of the order code
- . Other food standards : APV-RJT, IDF 2853, VARIVENT
- . Homogenizer version for high pressure
- . Version according to 3A standard

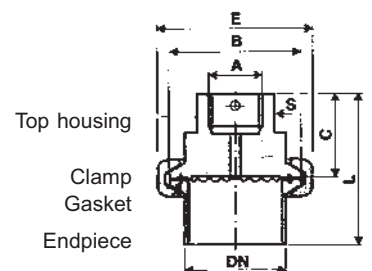
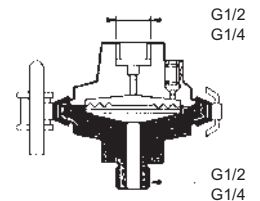
#### Order code of pressure gauge mounted on diaphragm seal

Pressure gauge order code + diaphragm seal order code

#### With endpiece to weld



#### With threaded endpiece



DN*	A	BØ	EØ
DN3/4"	G1/4	25	42
DN25	G1/2	50.5	66
DN38	G1/4 or G1/2	50.5	66
DN51	G1/4 or G1/2	64	79

\*Be carefull DN : endpiece Ø to weld, not BØ

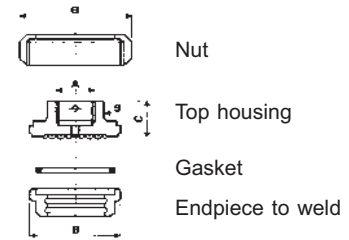
## SMS 1145 nut type, 1521 Series

Model	Top housing G1/2	Nut	Gasket	Endpiece to weld	Comple set*
<b>Smooth housing</b> (nut between pressure gauge and top housing)					
DN25 1"	410 921 + nut 410 922*	410 922	410 923	410 924	410 925
DN38 1 1/2"	410 907 + nut 410 915*	410 915	410 913	410 911	410 906
DN51 2"	410 903 + nut 410 914*	410 914	410 912	410 910	410 902
<b>With threaded housing</b>					
DN38 1 1/2"	410 908	410 915	410 913	410 918	410 916
DN51 2"	410 904	410 914	410 912	410 917	410 909

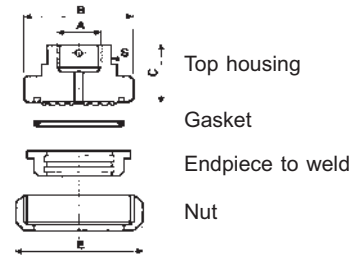
\*for mounting, nut must be ordered with top housing

Smooth housing				Threaded housing			
DN	A	ØB	ØE	DN	A	Thread	ØE
DN25	G1/2	40x1/6"	51	DN38	G1/2	60x1/6"	74
DN38	G1/2	60x1/6"	74	DN51	G1/2	70x1/6"	84
DN51	G1/2	70x1/6"	84				

### Smooth housing



### Threaded housing



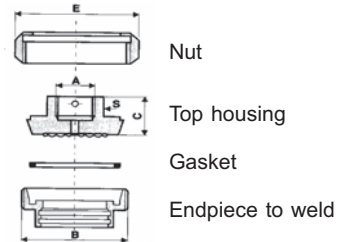
## DIN 11851 nut type, 1522 Series

Model	Top housing G1/2	Nut	Gasket	Endpiece to weld	Comple set*
<b>Smooth housing</b> (nut between pressure gauge and to housing)					
DN25	411 915 + nut 411 916*	411 916	411 917	411 918	411 919
DN32	411 901 + nut 411 903*	411 903	411 904	411 902	411 900
DN40	411 905 + nut 411 907*	411 907	411 908	411 906	411 910
DN50	411 909 + nut 411 912*	411 912	411 913	411 911	411 920
<b>With threaded housing</b>					
DN32	411 921	411 903	411 904	411 922	411 930
DN40	411 925	411 907	411 908	411 926	411 940
DN50	411 929	411 912	411 913	411 931	411 950

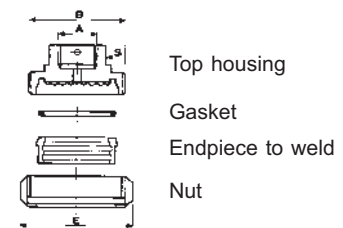
\*for mounting, nut must be ordered with top housing

Smooth housing				Threaded housing			
DN	A	ØB	ØE	DN	A	Thread	ØE
DN25	G1/2	52x1/6"	63	DN32	G1/2	58x1/6"	70
DN32	G1/2	58x1/6"	70	DN40	G1/2	65x1/6"	78
DN40	G1/2	65x1/6"	78	DN50	G1/2	78x1/6"	92
DN50	G1/2	78x1/6"	92				

### Smooth housing



### Threaded housing



## Certificates

Material certificate 3.1B	449 050
Roughness certificate	449 052
Food contact certificate for glycerin	449 053
FDA food conformity certificate for seals filling liquid	449 054

## Options

- . Diaphragm roughness Ra≤0.4µm, add **R4** at the end of the order code, for Ra≤0.6µm, add **R6**
- . Electropolished diaphragm, add **P** at the end of the order code
- . Other food standards : APV-RJT, IDF 2853, VARIVENT
- . Homogenizer version for high pressure
- . Version according to 3A standard

## Order code of pressure gauge mounted on diaphragm seal

Pressure gauge order code + diaphragm seal order code

# Diaphragm seals threaded connection 1530 Series

Diaphragm seals, threaded connection, CITEC 1530 Series, are designed for process industry and harsh environments as water treatment and paper industry. Modular design with possible disassembly for cleaning

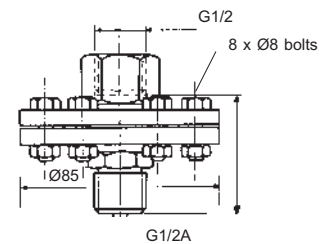
## Product specifications

. Pressure	0 2.5 bar to 0 250 bar
. Design	top housing : AISI 316L stainless steel bottom housing : AISI 316L stainless steel diaphragm : AISI 316L stainless steel, welded gasket : PTFE
. Process temperature	-15°C to 150°C



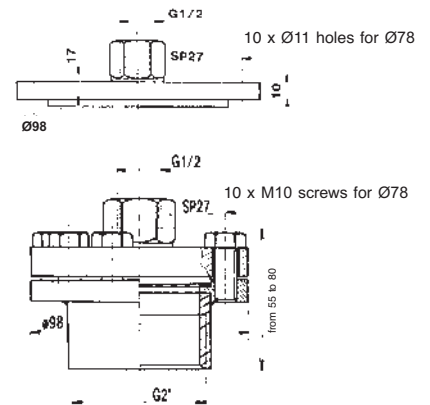
## DN80 diaphragm seals (water treatment application)

Model	Pressure gauge measuring range		Top housing	Bottom housing	Order code
	min	max			
1531	0 2.5 bar	to 0 60 bar	G1/2	G1/2	410 797
	0 2.5 bar	to 0 250 bar			410 798



## DN98 diaphragm seals (paper industry application)

Model	Pressure gauge measuring range		Top housing	Bottom housing	Order code
	min	max			
1532 Flush diaphragm	0 2.5 bar	to 0 100 bar	G1/2	DN98, 10 holes (bolts not supplied)	410 900
1535 with bottom housing	0 2.5 bar	to 0 100 bar	G1/2	DN98, 10 holes	G1" tapped
					G1"1/2 tapped
					G2" tapped
					410 846
					410 847
					410 848



## Options

- . Diaphragm : PTFE-foil, tantale, hastelloy, monel, ...
- . Temperature : high temperature 300°C
- . Pressure : 1000 bar max
- . Other connections : 3/4, 1", 1"1/2, 2", flange to weld, ...

## Order code of pressure gauge mounted on diaphragm seal

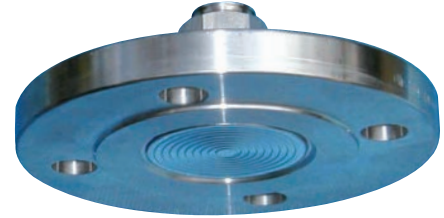
Pressure gauge order code + diaphragm seal order code



Diaphragm seals, flange connection, with internal or flush diaphragm, CITEC BF-BRF-BUSF Series, are designed for chemical and petrochemical industries on aggressive, viscous or hot media  
 According to standards : EN1092-1 (ISO), B1 facing type  
 ASME B 16.5 (ANSI), RF facing type  
 DN15 (1/2") to DN100 (4")

# Diaphragm seals flange connection BF - BRF - BUSF Series

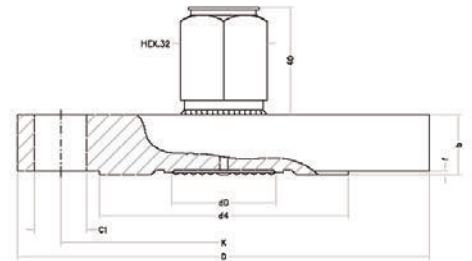
The three BF, BRF, BUSF Series allow to answer to different diameters DN15 (1/2") to DN100 (4") and to different materials used for diaphragm, according to the table below. The BUSF construction is designed for process connections too small to use flush diaphragm seals.



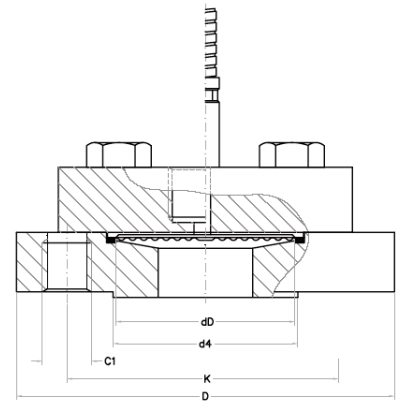
Size and material	Series		
	BUSF	BF	BRF
DN15 (1/2") and DN20 (3/4")	x		
DN25 (1") to DN100 (4")		x	x
AISI 316L SS diaphragm	x	x	
hastelloy C276 diaphragm			x
other materials	x		x

Two settings enable to determine flange's dimensions : DN (nominal diameter) and PN or Class (nominal pressure, which has to be compatible with pressure range's instrument).  
 Example : according to EN1092-1 standard : DN40 PN20 for a DN40 flange with 20 bar as nominal pressure  
 according to ASME B16.5 standard : 1" class 300 for a DN1" flange with 300 lbs as nominal pressure

In case of chemical processes including very aggressive media, all wetted parts have to be designed with the same material. The homogeneity of the material of the diaphragm and seal bearing ensures a perfect tightness, a good tear resistance and excellent temperature resistance performance.



BF-BRF



BUSF

## Product specifications

. Pressure	min : according to the table below max : according to flange's PN (nominal pressure).
. Design	. BF and BUSF Series, diaphragm and flange : AISI 316L stainless steel . BRF Series. flange : AISI 316L stainless steel diaphragm : hastelloy C276
. Process connection	standard flange according to : . EN 1092-1 (ISO), B1 type . ASME B 16.5 (ANSI), RF facing type
. Instrument connection	G1/2 female, stainless steel, capillary in option
. Filling liquid	FDA approved oil other liquids on request according to application
. Process temperature	-15°C to 200°C
. Flange dimensions	according to standard flanges dimension table

## Min / Max measuring range for pressure gauges

Process connection	1/2" - 3/4" DN15 - DN20	1" 1/4 DN25 - DN32	1 1/2" DN40	2" DN50	3" - 4" DN80 - DN100
Min. measuring range	0 1 bar	0 2.5 bar	0 1.6 bar	0 0.6 bar	0 0.6 bar

Max measuring range : given by nominal pressure or class of the chosen standards

## Order codes

### How to determinate the order code :

1- Select BF, BRF or BUSF according to table bellow

Size and material	Series		
	BUSF	BF	BRF
DN15 (1/2") and DN20 (3/4")	x		
DN25 (1") to DN100 (4")		x	x
316L SS diaphragm	x	x	
hastelloy C276 diaphragm			x
other materials	x		x

2- Select the flange according to the choosen standard :

. according to EN 1092-1, B1 type : DN (15 to 100) and PN (2.5 to 100 bar)

. according to ASME B 16.5, RF facing : DN (1/2" to 4") and class (150 to 2500 lbs)

3- To indicate if other material for the diaphragm

4- If capillary, indicate length

Serie	DN	P	PN or Class	Special diaphragm material	With capillary
BF	according to	or	according to	suffix according to material	<b>C</b>
BRF	dimensions table	<b>C</b>	dimensions table	diaphragm	followed by his
BUSF	(see next pages)	(1)	(see next pages)	(table bellow)	length in meters

(1) **P** for EN 1092-1 standard : B1 type, **C** for ASME B 16.5 standard : RF facing

### Other diaphragm materials for BRF and BUSF Series

Diaphragm material	Suffix
C276 Hastelloy	<b>H</b>
Monel 400	<b>M</b>
Tantale	<b>A</b>
Inconel 600	<b>I</b>
Duplex	<b>D</b>
Uranus B6	<b>U</b>
Titanium	<b>T</b>
PTFE coating (max. 260°C)	<b>P</b>
Gold coating (max. 400°C)	<b>O</b>

Coating is placed on AISI 316L stainless steel diaphragm

### Codification examples

- Diaphragm seal, BF Series, according to ASME B 16.5, flange 2"/class 300, order code : BF2P300

- Diaphragm seal, BRF Series according to EN 1092-1, flange DN100/PN20, monel 400 diaphragm, 2m SS capillary, order code : BRF100P20MC2

### Order codes abstract of BUSF - BF Series, DN15 to DN100, according to EN 1092-1, B1 type

DN	PN	Reference	CITEC code
DN15	10-40	BUSF 15P10-40	<b>411 945</b>
DN20	10-40	BUSF 20P10-40	<b>411 951</b>
DN25	10-40	BF 25P10-40	<b>411 961</b>
DN32	10-40	BF 32P10-40	<b>411 971</b>
DN40	10-40	BF 40P10-40	<b>411 981</b>
DN50	10-40	BF 50P10-40	<b>411 991</b>

### Options

. Material certificate 3.1B, **order code : 449 050**

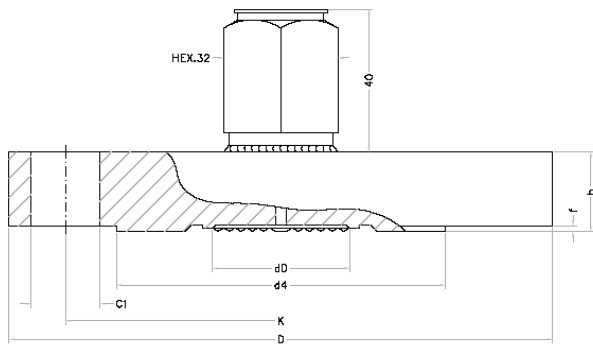
. Flanged connection according to JIS B220/1984 standard

. Flanged connection, with extension, EXT Series

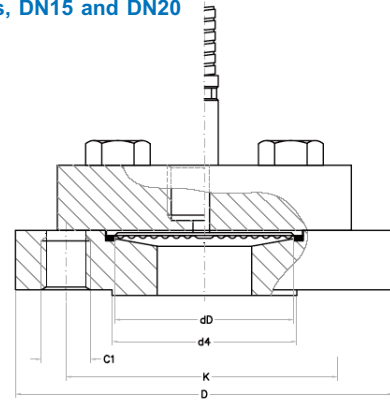
. Flush diaphragm, wafer type, BC Series

. Flush ring for flushing solution, FL Series

## BF - BRF Series, DN25 to DN100



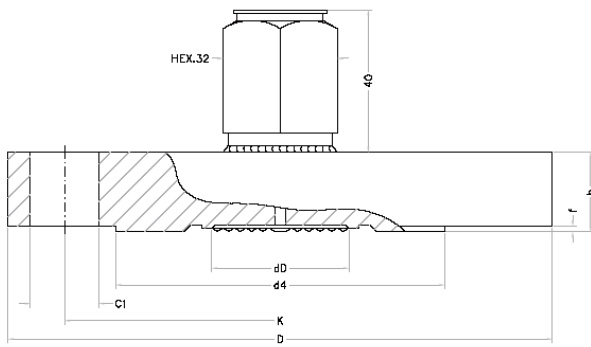
## BUSF Series, DN15 and DN20



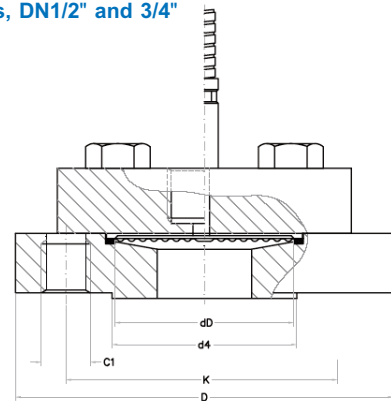
Flange connection according to DIN EN 1092-1 (ISO), B1 type

DN	PN (bar)	b	f	Ød4	ØdD	ØK	ØD	pc	C1 Ø	screw
15	2.5-6	12	2	40	51	55	80	4	11	M10
15	10-40	16	2	45	51	65	95	4	14	M12
15	20	12	1.6	34.9	51	60.3	89	4	15.8	M14
15	50	14	1.6	39.9	51	66.7	95	4	15.8	M14
15	63-100	20	2	45	51	75	105	4	14	M12
20	2.5-6	14	2	50	51	65	90	4	11	M10
20	10-40	18	2	58	51	75	105	4	14	M12
20	20	14	1.6	42.9	51	69.8	99	4	15.8	M14
20	50	15.7	1.6	42.9	51	82.6	117	4	19	M16
20	63-100	22	2	58	51	90	130	4	18	M16
25	2.5-6	14	2	60	32	75	100	4	11	M10
25	10-40	18	2	68	32	85	115	4	14	M12
25	20	16	1.6	50.8	32	79.4	108	4	15.8	M14
25	50	17.5	1.6	50.8	32	88.9	124	4	19	M16
25	63 -100	24	2	68	32	100	140	4	18	M16
32	2.5-6	14	2	70	32	90	120	4	14	M12
32	10-40	18	2	78	32	100	140	4	18	M16
32	20	18	1.6	63.5	32	88.9	117	4	15.8	M14
32	50	19	1.6	63.5	32	98.4	133	4	19	M16
32	63-100	26	2	78	32	110	155	4	22	M20
40	2.5-6	14	2	80	44	100	130	4	14	M12
40	10-40	18	2	88	44	110	150	4	18	M16
40	20	19	1.6	73	44	98.4	127	4	15.8	M14
40	50	20.6	1.6	73	44	114.3	156	4	22.2	M20
40	63-100	28	2	88	44	125	170	4	22	M20
50	2.5-6	14	2	90	57	110	140	4	14	M12
50	10-16	18	2	102	57	125	165	4	18	M16
50	20	21	1.6	92.1	57	120.6	152	4	19	M16
50	25-40	20	2	102	57	125	165	4	18	M16
50	50	22.4	1.6	92.1	57	127	165	8	19	M16
50	63	26	2	102	57	135	180	4	22	M20
50	100	30	2	102	57	145	195	4	26	M24
80	2.5-6	16	2	128	72	150	190	4	18	M16
80	10-16	20	2	138	72	160	200	8	18	M16
80	20	26	1.6	127	72	152.4	190	4	19	M16
80	25-40	24	2	138	72	160	200	8	18	M16
80	50	28.4	1.6	127	72	168.3	210	8	22.2	M20
80	63	28	2	138	72	170	215	8	22	M20
80	100	36	2	138	72	180	230	8	26	M24
100	2.5-6	16	2	148	89	170	210	4	18	M16
100	10-16	20	2	158	89	180	220	8	18	M16
100	20	27	1.6	157.2	89	190.5	229	8	19	M16
100	25-40	24	2	158	89	190	235	8	22	M20
100	50	31.8	1.6	157.2	89	200	254	8	22.2	M20
100	63	30	2	162	89	200	250	8	26	M24
100	100	40	2	162	89	210	265	8	30	M27

BF - BRF Series, DN1" to DN4"



BUSF Series, DN1/2" and 3/4"



Flange connection according to ASME B 16.5 (ANSI), RF facing

DN	Class (lbs)	b	f	Ød4	ØdD	ØK	ØD	pc	C1 Ø	screw
1/2"	150	11.2	1.6	35.1	51	60.5	88.9	4	15.7	1/2"-13UNC
1/2"	300	14.2	1.6	35.1	51	66.5	95.2	4	15.7	1/2"-13UNC
1/2"	400-600	20.6	6.4	35.1	51	66.5	95.3	4	15.7	1/2"-13UNC
1/2"	900-1500	28.7	6.4	35.1	51	82.5	120.6	4	22.3	3/4"-10UNC
1/2"	2500	36.6	6.4	35.1	51	88.5	133.4	4	22.3	3/4"-10UNC
3/4"	150	12.7	1.6	42.9	51	69.9	98.6	4	15.7	1/2"-13UNC
3/4"	300	15.7	1.6	42.9	51	82.5	117.3	4	19.1	5/8"-11UNC
3/4"	400-600	22.1	6.4	42.9	51	82.5	117.3	4	19.1	5/8"-11UNC
3/4"	900-1500	31.8	6.4	42.9	51	88.9	130.0	4	22.3	3/4"-10UNC
3/4"	2500	38.2	6.4	42.9	51	95.3	139.7	4	22.3	3/4"-10UNC
1"	150	14.2	1.6	50.8	32	79.2	108.0	4	15.7	1/2"-13UNC
1"	300	17.5	1.6	50.8	32	88.9	123.9	4	19.1	5/8"-11UNC
1"	400-600	23.9	6.4	50.8	32	88.9	124.0	4	19.1	5/8"-11UNC
1"	900-1500	34.8	6.4	50.8	32	101.6	149.3	4	25.4	7/8"- 9UNC
1"	2500	41.5	6.4	50.8	32	108.0	158.8	4	25.4	7/8"- 9UNC
1"1/4	150	15.7	1.6	63.5	32	88.9	117.3	4	15.7	1/2"-13UNC
1"1/4	300	19	1.6	63.5	32	98.5	133.3	4	19.1	5/8"-11UNC
1"1/4	400-600	27	6.4	63.5	32	98.5	133.4	4	19.1	5/8"-11UNC
1"1/4	900-1500	34.8	6.4	63.5	32	111.2	158.7	4	25.4	7/8"- 9UNC
1"1/4	2500	44.5	6.4	63.5	32	130	184.2	4	28.4	1"- 8UNC
1"1/2	150	17.5	1.6	73.2	44	98.6	127.0	4	15.7	1/2"-13UNC
1"1/2	300	20.6	1.6	73.2	44	114.3	155.4	4	22.3	3/4"-10UNC
1"1/2	400-600	28.8	6.4	73.2	44	114.3	155.4	4	22.3	3/4"-10UNC
1"1/2	900-1500	38.1	6.4	73.2	44	123.9	177.8	4	28.4	1"- 8UNC
1"1/2	2500	50.9	6.4	73.2	44	146.1	203.2	4	31.8	1"1/8 - 8UNC
2"	150	19.1	1.6	91.9	57	120.7	152.4	4	19.1	5/8"-11UNC
2"	300	22.4	1.6	91.9	57	127	165.1	8	19.1	5/8"-11UNC
2"	400-600	31.8	6.4	91.9	57	127	165.1	8	19.1	5/8"-11UNC
2"	900-1500	44.5	6.4	91.9	57	165.1	215.9	8	25.4	7/8"- 9UNC
2"	2500	57.2	6.4	91.9	57	171.5	235.0	8	28.4	1"- 8UNC
3"	150	23.9	1.6	127	72	152.4	190.5	4	19.1	5/8"-11UNC
3"	300	28.4	1.6	127	72	168.1	209.5	8	22.3	3/4"-10UNC
3"	400-600	38.2	6.4	127	72	168.1	209.6	8	22.3	3/4"-10UNC
3"	900	44.5	6.4	127	72	190.5	241.3	8	25.4	7/8"- 9UNC
3"	1500	54.1	6.4	127	72	203.2	266.7	8	31.8	1"1/8 - 8UNC
3"	2500	72.9	6.4	127	72	228.6	304.8	8	35.1	1"1/4 - 8UNC
4"	150	23.9	1.6	157.2	89	190.5	228.6	8	19.1	5/8"-11UNC
4"	300	31.7	1.6	157.2	89	200.1	254.0	8	22.3	3/4"-10UNC
4"	400	37.9	6.4	157.2	89	200.2	254.0	8	25.4	7/8"- 9UNC
4"	600	44.5	6.4	157.2	89	215.9	273.1	8	25.4	7/8"- 9UNC
4"	900	50.8	6.4	157.2	89	234.9	292.1	8	25.4	1"1/8 - 8UNC
4"	1500	50.2	6.4	157.2	89	241.3	311.1	8	35.1	1"1/4 - 8UNC
4"	2500	82.6	6.4	157.2	89	273.1	355.6	8	41.1	1"1/2 - 8UNC

# Bimetal thermometers all stainless steel sliding connection 4220 Series

All stainless steel thermometers, CITEC 4220 Series, are designed for chemical, petrochemical, pharmaceutical, food, water treatment applications

Ø 100, 130  
-20°C to 400°C, class 1

## Product specifications

. Temperature range	-20°C to 400°C
. Accuracy class	1 according to DIN 16203
. Measuring element	bimetal coil
. Stem	316L stainless steel, Ø 6mm, option 8, 10, 12
. Case	304 stainless steel, Ø 100, 130, 160 in option
. Window	glass
. Connection	316L stainless steel sliding G1/2, NPT in option
. Thermowell (option)	316L stainless steel, Ø 10mm
. Dial	white aluminium, black lettering
. Adjustment	by screw located on the case
. Protection	IP55, IP65 in option



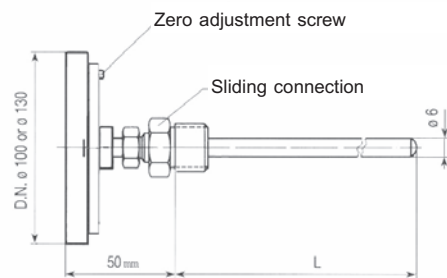
## Order codes



**4224 Model**  
(supplied with sliding connection, without thermowell)

Measuring range	Ø 100		Ø 130	
	L 150	L 300	L 150	L 300
-20 +60°C	204 030	204 031	204 042	204 043
0 +60°C	204 032	204 033	204 044	204 045
0 +120°C	204 034	204 035	204 046	204 047
0 +160°C	204 036	204 037	204 048	204 049
0 +250°C	204 038	204 039	204 050	204 051
0 +400°C	204 040	204 041	204 052	204 053

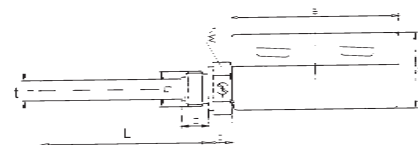
L = stem length, sliding connection thread included



**4221 Model**  
(supplied with connection, without thermowell)

Measuring range	Ø 100		Ø 130	
	L 150	L 300	L 150	L 300
-20 +60°C	204 060	204 061	204 072	204 073
0 +60°C	204 062	204 063	204 074	204 075
0 +120°C	204 064	204 065	204 076	204 077
0 +160°C	204 066	204 067	204 078	204 079
0 +250°C	204 068	204 069	204 080	204 081
0 +400°C	204 070	204 071	204 082	204 083

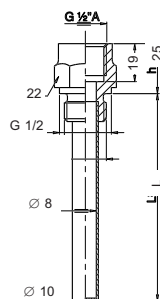
L = stem length, sliding connection thread included



Ø	a	b	c	d	SW	G	t
100	110	60	25	15	22	1/2	6
130	130	60	25	15	22	1/2	6

## Thermowells order codes

L mm with thread	316L SS G1/2
50	220 215
100	220 220
150	220 225
200	220 226
300	220 230



## Clamp thermowell

Welded, 316L stainless steel

L mm	DN38 (1,5")	DN51 (2")
50	220 215C38	220 215C51
100	220 220C38	220 220C51
150	220 225C38	220 225C51
flange Ø	50.5mm	64mm



## Options

- . Other measuring ranges
- . Case Ø 63, 80, 160
- . NPT connection, add **N** to order code
- . Fixed connection, add **F** to order code
- . Stem Ø 8, 10, 12mm
- . Other stem lengths, max : 1000mm
- . AISI 316L case, add **S** at the end of the order code
- . ATEX EEX II2GDc version, add **A** at the end of the order code
- . IP65 version, add **P** at the end of the order code
- . Glycerin filled, add **E** at the end of the order code

# Bimetal thermometers all stainless steel adjustable angle 4210 Series

All stainless steel thermometers with adjustable angle, CITEC 4210 Series, are designed for chemical, petrochemical, pharmaceutical and food applications

Ø 100, 130, adjustable angle for reading

-20°C to 400°C, class 1

## Product specifications

. Temperature range	-20°C to 400°C
. Accuracy class	1 according to DIN 16 203
. Measuring element	bimetal coil
. Stem	316L stainless steel, Ø 6mm, option 8, 10, 12
. Case	304 stainless steel
. Window	glass
. Connection	316L stainless steel sliding G1/2, NPT in option
. Thermowell (option)	316L stainless steel, Ø 10mm
. Dial	white aluminium, black lettering
. Adjustment	by screw located on the case
. Max pressure	25 bar, on the stem
. Protection	IP55, option IP65



## Order codes



### 4214 Model

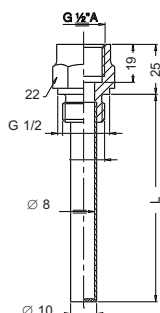
(supplied with sliding connection, without thermowell)

Measuring range	Ø 100		Ø 130	
	L 150	L 300	L 150	L 300
-20 +60°C	204 000	204 001	204 012	204 013
0 +60°C	204 002	204 003	204 014	204 015
0 +120°C	204 004	204 005	204 016	204 017
0 +160°C	204 006	204 007	204 018	204 019
0 +250°C	204 008	204 009	204 020	204 021
0 +400°C	204 010	204 011	204 022	204 023

L = stem length, sliding connection thread included

## Thermowells order codes

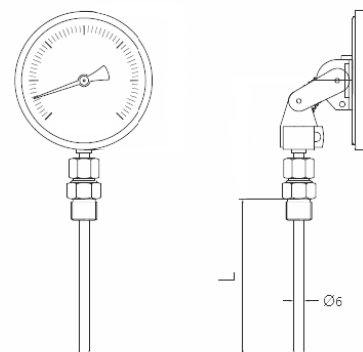
L mm with thread	316L SS G1/2
50	220 215
100	220 220
150	220 225
200	220 226
300	220 230



## Clamp thermowell

Welded, 316L stainless steel

L mm	DN38 (1,5")	DN51 (2")
50	220 215C38	220 215C51
100	220 220C38	220 220C51
150	220 225C38	220 225C51
flange Ø	50.5mm	64mm



## Options

- . Other measuring ranges
- . Case Ø 80, 160
- . NPT connection, add **N** to order code
- . Fixed connection, add **F** to order code
- . Stem Ø 8, 10, 12mm
- . Other stems lengths, max : 1000mm
- . AISI 316L case, add **S** at the end of the order code
- . Glycerin filling, add **E** at the end of the order code
- . IP65 version, add **P** at the end of the order code
- . ATEX EEX II2GDC version, add **A** at the end of the order code

All stainless steel gas thermometers, CITEC 4300 Series, are designed for chemical, petrochemical, pharmaceutical, food applications

Ø 100, 160  
-40°C to 400°C, class 1

# Gas thermometers all stainless steel 4300 Series

## Product specifications

. Temperature range	-40°C to 400°C, others in option
. Accuracy class	1 according to DIN 16203
. Measuring element	brass copper spiral tube, inert gas : nitrogen N <sub>2</sub>
. Plain stem	316L stainless steel, Ø 8mm, option 6, 10, 12
. Case	304 stainless steel, option Ø 63, 80, 250
. Bezel	304 stainless steel, bayonet
. Window	glass
. Connection (option)	316L stainless steel sliding G1/2, NPT in option
. Thermowell (option)	316L stainless steel, Ø 12mm (used with sliding connection)
. Dial	white aluminium, black lettering
. Adjustment	by screw located on case, ±6%FS
. Max pressure	25 bar on stem
. Protection	IP65, glycerin filling option



## Order codes



### 4304 Model (plain stem)

Measuring range	Ø 100			Ø 160		
	L 100	L 160	L 250	L 100	L 160	L 250
-40 +60°C	218 501	218 513	218 525	218 601	218 613	218 625
-20 +80°C	218 503	218 515	218 527	218 603	218 615	218 627
0 +120°C	218 505	218 517	218 529	218 605	218 617	218 629
0 +160°C	218 507	218 519	218 531	218 607	218 619	218 631
0 +250°C	218 509	218 521	218 533	218 609	218 621	218 633
0 +400°C	218 511	218 523	218 535	218 611	218 623	218 635

L = stem length

With flange : add flange order code (see next page)



### 4301 Model (plain stem)

Measuring range	Ø 100			Ø 160		
	L 100	L 160	L 250	L 100	L 160	L 250
-40 +60°C	218 801	218 813	218 825	218 901	218 913	218 925
-20 +80°C	218 803	218 815	218 827	218 903	218 915	218 927
0 +120°C	218 805	218 817	218 829	218 905	218 917	218 929
0 +160°C	218 807	218 819	218 831	218 907	218 919	218 931
0 +250°C	218 809	218 821	218 833	218 909	218 921	218 933
0 +400°C	218 811	218 823	218 835	218 911	218 923	218 935

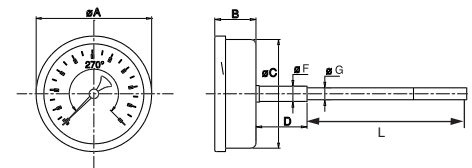
L = stem length

With flange : add flange order code (see next page)

## Options

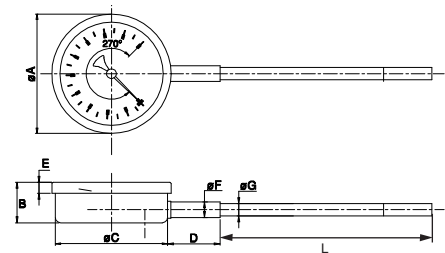
- . Case Ø 63, 80, 250
- . Other connections, NPT
- . Stem Ø 6, 10 and 12mm
- . Max stem length : 1000mm
- . Glycerin filled, add **E** at the end of the order code
- . Electrical contacts
- . Max pointer
- . Heavy duty Model, anti vibrations, for diesel engines
- . Other measuring ranges : see table next page

### 4304 Model



Ø	A	B	C	D	F	G
63	65	38	62	20	15	8
80	83	37	78	20	15	8
100	101	45	99	20	15	8
160	161	45	158	20	15	8
250	252	55	247	20	15	8

### 4301 Model



Ø	A	B	C	D	F	G
63	65	38	62	20	15	8
80	83	37	78	20	15	8
100	101	45	99	20	15	8
160	161	45	158	20	15	8
250	252	55	247	20	15	8

# 4300 Series

## Flont flange 3 holes for panel mounting

304 stainless steel

Case Ø	Order code
100	218 342
160	218 344



## Back flange 3 holes for wall mounting

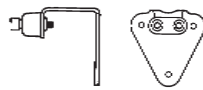
304 stainless steel

Case Ø	Order code
100	218 342V
160	218 344V

## Bracket for wall mounting

304 stainless steel

Order code	218 360
------------	---------



## Other measuring ranges

Measuring range	Code	Measuring range	Code
-200 +50°C	T01	-20 +100°C	T25
-120 +40°C	T02	-20 +120°C	T26
-110 +50°C	T03	-20 +180°C	T27
-100 +100°C	T04	-10 +15°C	T28
-100 +50°C	T05	-10 +30°C	T29
-80 +40°C	T06	-10 +50°C	T30
-70 +50°C	T07	-10 +110°C	T31
-60 +40°C	T08	-10 +150°C	T32
-60 +60°C	T09	0 +25°C	T33
-50 +50°C	T10	0 +40°C	T34
-50 +100°C	T11	0 +60°C	T35
-40 +20°C	T12	0 +80°C	T36
-40 +40°C	T13	0 +100°C	T37
-40 +60°C	T14	0 +120°C	T38
-40 +80°C	T15	0 +160°C	T39
-40 +120°C	T16	0 +200°C	T40
-40 +160°C	T17	0 +250°C	T41
-30 +30°C	T18	0 +300°C	T42
-30 +50°C	T19	0 +400°C	T43
-30 +70°C	T20	0 +500°C	T44
-30 +170°C	T21	0 +600°C	T45
-30 +270°C	T22	0 +700°C	T46
-20 +40°C	T23	0 +800°C	T47
-20 +60°C	T24	+100 +500°C	T48

## Sliding connection for Ø 8mm stem

316L stainless steel

Raccord	Référence
G1/2	218 305
G3/4	218 306

NPT : add N at the end of the order code

## 316L stainless steel thermowell

Be carefull : add sliding connection for mounting

L mm	Order code
50	218 363
100	218 365
160	218 366
250	218 367

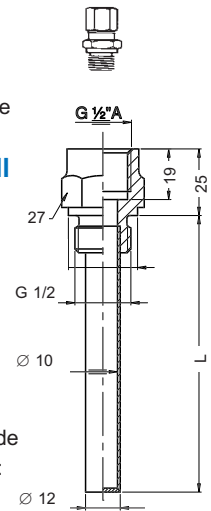
NPT : add N at the end of the order code

DN38 clamp (1.5", flange Ø : 50.5mm) :

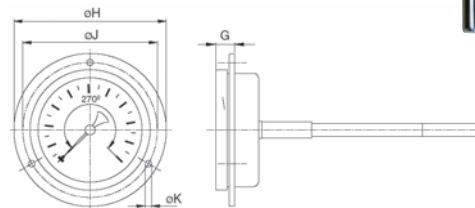
add C38 at the end of the order code

Clamp DN51 (2", flange Ø : 64mm) :

add C51 at the end of the order code

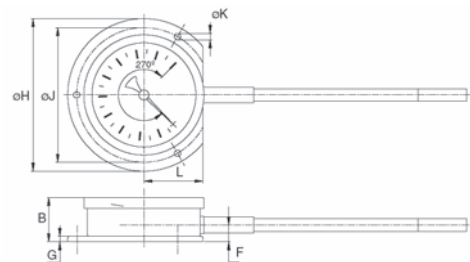


## 4302 Model, front flange



Ø	H	J	K
63	86	75	3.5
80	110	95	4
100	132	116	5.5
160	192	178	6
250	285	270	6

## 4302 Model, back flange



Ø	H	J	K	B	F
63	86	75	3.5	38	13
80	110	95	4	37	13
100	132	116	5.5	45	13
160	192	178	6	45	13
250	285	270	6	57	13



# Gas thermometers all stainless steel with capillary 4320 Series

All stainless steel thermometers with capillary, CITEC 4320 Series, are designed for chemical, petrochemical, pharmaceutical and food applications with remote temperature measurement

Ø 100, 160, -40°C to 400°C, class 1

## Product specifications

. Temperature range	-40°C to 400°C, other in option
. Accuracy class	1 according to DIN 16203
. Measure element	brass spiral tube, inert gas : nitrogen N <sub>2</sub>
. Plain stem	316L stainless steel, Ø 8mm, option 6, 10, 12
. Capillary	316L stainless steel (SS flexible sheath protection in option)
. Case	304 stainless steel, option 63, 80, 250
. Bezel	304 stainless steel, bayonet
. Window	glass
. Connection (option)	sliding 316L stainless steel G1/2, option NPT
. Thermowell (option)	316L stainless steel, Ø 12 (used with sliding connection)
. Dial	white aluminium, black lettering
. Adjustment	by screw located on case, ±6%FS
. Max pressure	25 bar, on stem
. Protection	IP65, glycerin filling option
. Mounting	flange, bracket (to order separately)



4321 Model

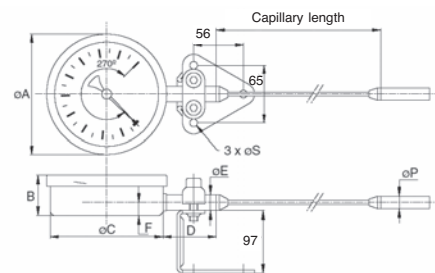
## Order codes



### 4324 Model, plain stem, 3m capillary

Measuring range	Ø 100	Ø 160	L = stem length
	L 100	L 100	
-40 +60°C	219 021	219 041	
-20 +80°C	219 023	219 043	
0 +120°C	219 025	219 045	
0 +160°C	219 027	219 047	
0 +250°C	219 029	219 049	
0 +400°C	219 031	219 051	

With flange : add flange order code (see next page)



Ø	A	B	C	D	E	F	P
63	65	38	62	20	15	13	8
80	83	37	78	20	15	13	8
100	101	45	99	43	15	13	8
160	161	45	158	63	15	13	8
250	252	55	247	20	15	13	8

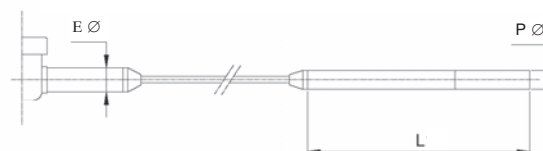


### 4321 Model, plain stem, 3m capillary

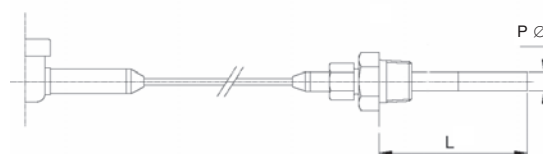
Measuring range	Ø 100	Ø 160	L = stem length
	L 100	L 100	
-40 +60°C	219 075	219 089	
-20 +80°C	219 077	219 091	
0 +120°C	219 079	219 093	
0 +160°C	219 081	219 095	
0 +250°C	219 083	219 097	
0 +400°C	219 085	219 099	

With flange : add flange order code (see next page)

## Plain stem



## Plain stem with sliding connection



## Options

- . Case Ø 63, 80, 250
- . Other connections, NPT
- . Stem : Ø 6, 10 and 12mm, max length : 1000mm
- . Other capillary lengths, max : 50m
- . Stainless steel flexible sheath protection : add **X** at the end of the order code
- . Glycerin filled : add **E** at the end of the order code
- . Electrical contacts
- . Max pointer
- . Other measuring ranges : see next page

# 4320 Series

## Front flange 3 holes for panel mounting

304 stainless steel

Case Ø	Order code
100	218 342
160	218 344



## Back flange 3 holes for wall mounting

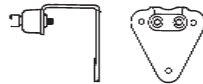
304 stainless steel

Case Ø	Order code
100	218 342V
160	218 344V

## Bracket for wall mounting

304 stainless steel

Order code 218 360



## Other measuring ranges

Measuring range	Code	Measuring range	Code
-200 +50°C	T01	-20 +100°C	T25
-120 +40°C	T02	-20 +120°C	T26
-110 +50°C	T03	-20 +180°C	T27
-100 +100°C	T04	-10 +15°C	T28
-100 +50°C	T05	-10 +30°C	T29
-80 +40°C	T06	-10 +50°C	T30
-70 +50°C	T07	-10 +110°C	T31
-60 +40°C	T08	-10 +150°C	T32
-60 +60°C	T09	0 +25°C	T33
-50 +50°C	T10	0 +40°C	T34
-50 +100°C	T11	0 +60°C	T35
-40 +20°C	T12	0 +80°C	T36
-40 +40°C	T13	0 +100°C	T37
-40 +60°C	T14	0 +120°C	T38
-40 +80°C	T15	0 +160°C	T39
-40 +120°C	T16	0 +200°C	T40
-40 +160°C	T17	0 +250°C	T41
-30 +30°C	T18	0 +300°C	T42
-30 +50°C	T19	0 +400°C	T43
-30 +70°C	T20	0 +500°C	T44
-30 +170°C	T21	0 +600°C	T45
-30 +270°C	T22	0 +700°C	T46
-20 +40°C	T23	0 +800°C	T47
-20 +60°C	T24	+100 +500°C	T48

## Sliding connection for Ø 8mm stem

316L stainless steel

Connection	Order code
G1/2	218 305
G3/4	218 306

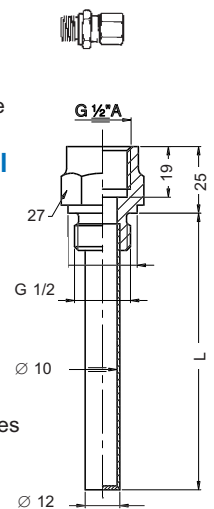
NPT : add N at the end of the order code

## 316L stainless steel thermowell

Be carefull : add sliding connection for mounting

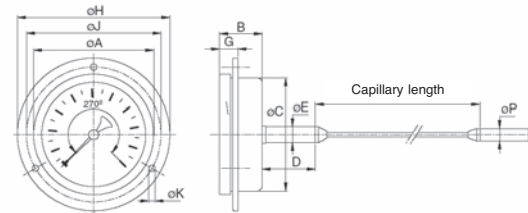
L mm	Order code
100	218 365
160	218 366
250	218 367

NPT : add N at the end of the order codes



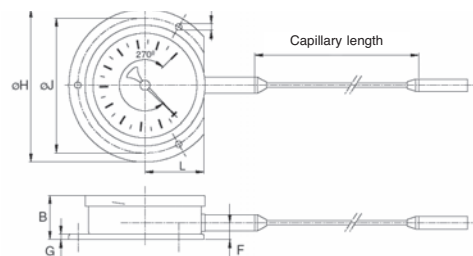
## Dimensions with flange

### 4328 Model, front flange



Ø	A	B	C	D	E	H	J	K	P
63	65	38	65	20	15	86	75	3.5	8
80	83	37	83	20	15	110	95	4	8
100	101	45	101	20	15	132	116	5.5	8
160	161	45	161	20	15	186	178	6	8
250	252	55	252	20	15	285	270	6	8

### 4322 Model, back flange

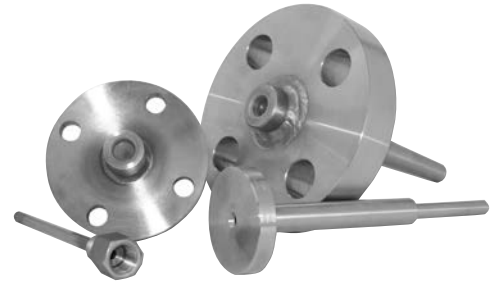


Ø	H	J	K	B	F
63	86	75	3.5	38	13
80	110	95	4	37	13
100	132	116	5.5	45	13
160	186	178	6	45	13
250	285	270	6	57	13

To isolate, protect the sensing element, and permits removal of instruments, CITEC provides all types of thermowells : threaded, flanged or for welding as well as sanitary type in fabricated or barstock versions

## Thermowells

. Material	AISI 316L stainless steel, monel 400, hastelloy C276, other on request
. Type	fabricated or barstock
. Instrument connection	BSP or NPT
. Process connection	. BSP or NPT . flange according to ASME, EN, DIN, JIS, ISO... . for welding
. Bore geometry	cylindrical or conical



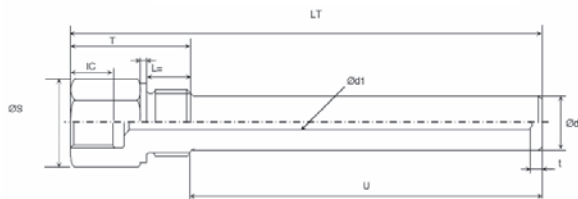
To determinate a thermowell, fill the following table :

Specifications	Definition	To complete
. Thermowells material	material type : AISI 316L, monel 400...	
. Type	fabricated (welded) or barstock	
. Instrument connection	Z : BSP, NPT, other	
. Process connection threaded, flanged or welded	with flange : precise type (ASME, EN1092-1, ...)	
. Threaded connection	H : BSP, NPT, other	
. Thermowells to weld	precise $\varnothing$ to weld	
. Total length	LT (mm)	
. Connection length	T (mm)	
. Insertion length	U (mm), length under thread or under flange	
. Inside and outside diameters	$\varnothing d1$ and $\varnothing d$ (mm)	
. Thermowell geometry	cylindrical or conical	
. Stopper and chain	with or without	
. Drawing	drawing supplied : yes-no	
. Other		

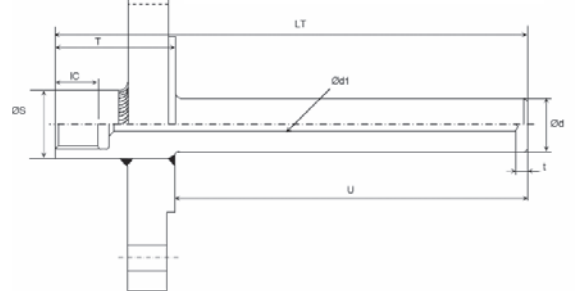


### Thermowells models

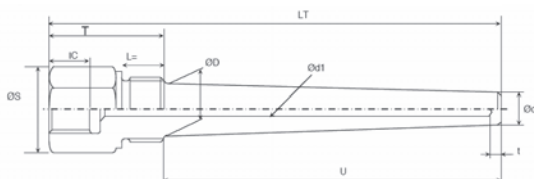
Threaded male-female, cylindrical



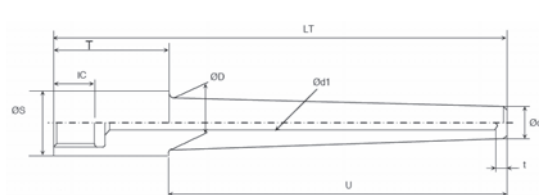
With standard flange, cylindrical



Threaded male-female, conical



For welding, conical



For available options on thermometers, add the following suffix(es) at the end of the standard order code

## Connection, scale

Options	Suffix
BSP thread	G
NPT thread	N
1/8, 1/4, 1/2, 3/8 thread	1/8, 1/4, 1/2, 3/8
Fixed connection	F
Sliding connection	X
°F scale	R
Double scale °C/°F	W

## Design

Options	Suffix
AISI 316 case	S
Glass window	V
Safety glass window	U
Polycarbonate window	C
Glycerin filling	E
Silicone filling	I
IP65 protection	P
ATEX version	A
Brass stem	B
Other case	Z

## Stem, capillary, temperature

To order thermometers with :

- . non standard stem length : **Lxx** (mm)
  - . non standard stem diameter : **Dxx** (mm)
  - . non standard capillary length : **Cx** (mm)
  - . non standard temperature range (see table) : **Txx**
- start with the order code of the shortest stem length at temperature of 120°C and add the following suffixes : **Cx**, **Dxx**, **Lxx**, **Txx**.

### Examples

- 4210 Series adjustable angle thermo, Ø 100, stem L 160mm, 0-200°C, NPT  
Order code : 204 004L160T40N
- 4320 Series thermo, Ø 100, stem Ø 12mm, stem L 160mm, 5m capillary, 0-250°C  
Order code : 219 025D12L160C5T41

## Temperature codes

Measuring range	Code	Measuring range	Code
-200 +50°C	T01	-20 +100°C	T25
-120 +40°C	T02	-20 +120°C	T26
-110 +50°C	T03	-20 +180°C	T27
-100 +100°C	T04	-10 +15°C	T28
-100 +50°C	T05	-10 +30°C	T29
-80 +40°C	T06	-10 +50°C	T30
-70 +50°C	T07	-10 +110°C	T31
-60 +40°C	T08	-10 +150°C	T32
-60 +60°C	T09	0 +25°C	T33
-50 +50°C	T10	0 +40°C	T34
-50 +100°C	T11	0 +60°C	T35
-40 +20°C	T12	0 +80°C	T36
-40 +40°C	T13	0 +100°C	T37
-40 +60°C	T14	0 +120°C	T38
-40 +80°C	T15	0 +160°C	T39
-40 +120°C	T16	0 +200°C	T40
-40 +160°C	T17	0 +250°C	T41
-30 +30°C	T18	0 +300°C	T42
-30 +50°C	T19	0 +400°C	T43
-30 +70°C	T20	0 +500°C	T44
-30 +170°C	T21	0 +600°C	T45
-30 +270°C	T22	0 +700°C	T46
-20 +40°C	T23	0 +800°C	T47
-20 +60°C	T24	+100 +500°C	T48

Pressure switches, CITEC B4 and ATEX B7 Series, are very rugged with high resistance to overpressure. Main applications are for chemical, petrochemical, food, water treatment industries and industrial equipments  
ATEX version, 2 simultaneous switches in option  
-1 to 210 bar

## Pressure switches for harsh environments B4 - B7 (ATEX) Series

### Product specifications

. Pressure range	-1 to 210 bar
. Overload limit	see order codes table
. Diaphragm	Buna-N, other in option
. Switch	1 SPDT switch, 2 switches in option 15A/250Vac, dc rating : contact 24 : 6A/30Vdc contact 20 : 0.4A/120Vdc
. Switch adjustment	by nut inside the enclosure increasing : 15 to 100% of scale decreasing : 85 to 0% of scale
. Repeatability (at 20°C)	±1%FS
. Process temperature	-18°C to 65°C, option up to 150°C
. Ambient temperature	-25°C to 60°C
. Process connection	male 1/2BSP (option NPT) or female 1/4NPT, 316 SS, (both possibilities on the same connection)
. Electrical connection	female 3/4NPT, supplied with cable gland B4 : plastic gland, order code 896 791 B7 : nickel plated brass gland, order code 896 790
. Housing	B4 and B7 d : aluminium epoxy coated black B7 ia : aluminium epoxy coated blue
. Protection	B4 : IP54, option IP65, B7 : IP66
. Weight	mbar scale : 1.2kg, bar scale : 0.7kg, ATEX : + 0.5kg



B4



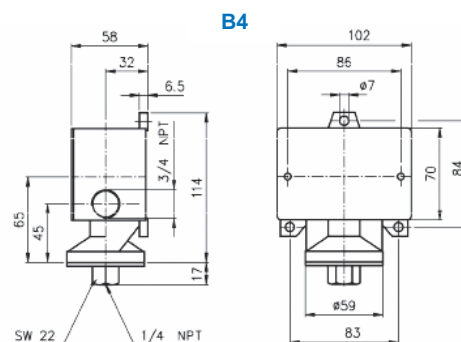
B7

### Order codes

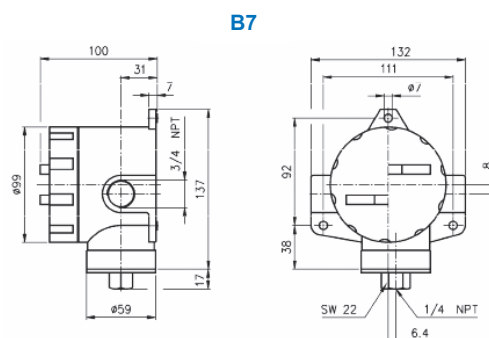
#### B4 Series, general purpose, fixed deadband

Pressure range	Proof / Burst pressure	Fixed deadband (contact 24)		Order code
		min	max	
0 25 mbar	1.4 / 2.4 bar	2.5 mbar	5.0 mbar	896 800
0 75 mbar	1.4 / 2.4 bar	3.7 mbar	6.2 mbar	896 802
0 375 mbar	1.4 / 2.4 bar	11.2 mbar	21.1 mbar	896 804
-1 0 bar	17 / 28 bar	0.05 bar	0.1 bar	896 806
-1 4 bar	17 / 28 bar	0.2 bar	0.35 bar	896 808
0 2 bar	35 / 103 bar	0.035 bar	0.1 bar	896 810
0 7 bar	69 / 207 bar	0.1 bar	0.35 bar	896 812
0 14 bar	69 / 207 bar	0.35 bar	0.9 bar	896 814
0 28 bar	165 / 207 bar	0.35 bar	1.65 bar	896 815
0 42 bar	165 / 207 bar	0.6 bar	2 bar	896 816
0 70 bar	827 / 1240 bar	2 bar	7.5 bar	896 818
0 210 bar	827 / 1240 bar	5.5 bar	16.2 bar	896 820

NPT connection : add N at the end of the order code



B4



B7

## B4 - B7 Series

### B4 Series, fixed narrow deadband

Pressure range	Proof / Burst pressure	Fixed deadband (contact 20)		Order code
		min	max	
0 25 mbar	1.4 / 2.4 bar	0.5 mbar	1.25 mbar	896 800F
0 75 mbar	1.4 / 2.4 bar	0.75 mbar	1.5 mbar	896 802F
0 375 mbar	1.4 / 2.4 bar	2.5 mbar	6.2 mbar	896 804F
-1 0 bar	17 / 28 bar	0.01 bar	0.025 bar	896 806F
-1 4 bar	17 / 28 bar	0.05 bar	0.1 bar	896 808F
0 2 bar	35 / 103 bar	0.07 bar	0.034 bar	896 810F
0 7 bar	69 / 207 bar	0.034 bar	0.12 bar	896 812F
0 14 bar	69 / 207 bar	0.07 bar	0.2 bar	896 814F
0 28 bar	165 / 207 bar	0.275 bar	0.5 bar	896 815F
0 42 bar	165 / 207 bar	0.275 bar	0.76 bar	896 816F
0 70 bar	827 / 1240 bar	0.48 bar	2 bar	896 818F
0 210 bar	827 / 1240 bar	1 bar	4.15 bar	896 820F

NPT connection : add **N** at the end of the order code

### B4 Series, adjustable deadband

Pressure range	Proof / Burst pressure	Adjustable deadband (contact 50)		Order code
		min	max	
0 25 mbar	1,4 / 2,4 bar	0.87 mbar	3.73 mbar	896 800R
0 75 mbar	1,4 / 2,4 bar	1.2 mbar	5 mbar	896 802R
0 375 mbar	1,4 / 2,4 bar	4.2 mbar	16 mbar	896 804R
-1 0 bar	17 / 28 bar	0.17 bar	0.75 bar	896 806R
-1 4 bar	17 / 28 bar	0.08 bar	0.25 bar	896 808R
0 2 bar	35 / 103 bar	0.02 bar	0.07 bar	896 810R
0 7 bar	69 / 207 bar	0.075 bar	0.25 bar	896 812R
0 14 bar	69 / 207 bar	0.14 bar	0.62 bar	896 814R
0 28 bar	165 / 207 bar	0.38 bar	1.03 bar	896 815R
0 42 bar	165 / 207 bar	0.48 bar	1.38 bar	896 816R
0 70 bar	827 / 1240 bar	1.24 bar	4.82 bar	896 818R
0 210 bar	827 / 1240 bar	2.55 bar	11 bar	896 820R

### B7 Series, ATEX version

**B7 Series** is B4 Series with ATEX option.

To order B7 Series, select B4 order code and add the following suffix :

ATEX version	Suffix
Intrinsically safe : ExII 1GD T85°C IP6X EEx ia IICT4	A
Flameproof enclosure : ExII 2GDEEx d IICT6	D

NPT connection : add **N** at the end of the order code

### Options

- . Other pressure ranges, differential pressure : D4/D7 Series
- . Other connections
- . 2 SPDT switches, simultaneous thresholds : add **W** at the end of the order code  
not simultaneous thresholds : other Series on request
- . Other diaphragm materials : PTFE, viton (-7 to +150°C), 316 SS (-18 to +150°C, 1 to 70 bar),  
respective codes **T**, **V**, **S** at the end of the order code
- . Gold contact, under nitrogen hermetically sealed switch
- . Cleaning for oxygen
- . Diaphragm seals mounting
- . IP65 version, add **P** at the end of the order code

Temperature switches, CITEC TA and T7 (ATEX) Series, are very rugged and are used for chemical, petrochemical industries and industrial equipments

ATEX version. 2 simultaneous switches in option

-40°C to 400°C, fixed stem or with capillary

## Temperature switches for harsh environments T4 - T7 (ATEX) Series

### Product specifications

. <b>Temperature range</b>	-40°C to +400°C
. <b>Max. temperature</b>	see table below
. <b>Stem</b>	316 stainless steel . fixed stem : L 70mm to 300mm, Ø 9.5mm (3/8") . stem with capillary : L 76mm, Ø 9.5mm (3/8")
. <b>Capillary</b>	316 stainless steel, 1.5m to 7,5m
. <b>Switch</b>	1 SPDT switch, 2 switches in option 15A/250Vac, dc rating : contact 24 : 6A/30Vdc contact 20 : 0.4A/120Vdc
. <b>Switch adjustment</b>	by nut inside the enclosure increasing : 15 to 100%FS decreasing : 85 to 0%FS
. <b>Repeatability (at 20°C)</b>	±1%FS
. <b>Ambient temperature</b>	-25°C to 60°C
. <b>Process connection</b>	fixed stem : G1/2, NPT in option stem with capillary : sliding connection G1/2 or NPT on stem or on capillary (sliding connection to order separately)
. <b>Electrical connection</b>	3/4NPT female, supplied with cable gland T4 : plastic gland, order code 896 791 T7 : nickel plated gland, order code 896 790
. <b>Housing</b>	T4 and T7d : epoxy coated black aluminium T7ia : aluminium epoxy coated blue
. <b>Protection</b>	T4 : IP54, IP65 in option, T7 : IP66
. <b>Weight</b>	with fixed stem, T4 : 1.2kg, T7 : 1.7kg with capillary : + 0.3kg



### Order codes

#### T4 Series, general purpose, fixed deadband

Temperature range	Max temperature	Fixed deadband (contact 24)		Fixed stem G1/2 L152mm	Stem L76mm + capillary 3m
		min	max		
-40 16°C	204°C	1.7°C	4.4°C	296 800	296 820
-20 40°C	204°C	2.8°C	6.7°C	296 802	296 822
20 95°C	204°C	4.4°C	8.9°C	296 804	296 824
65 125°C	204°C	2.8°C	6.7°C	296 806	296 826
110 190°C	260°C	2.8°C	6.7°C	296 808	296 828
175 275°C	371°C	4.4°C	8.9°C	296 810	296 830
260 400°C	482°C	8.9°C	16.7°C	-	296 832

NPT : add **N** at the end of the order code

Supplied without sliding connection

Sliding connection to be ordered separately (G1/2)

On stem : 296 890    On capillary : 296 891

NPT : add **N** at the end of the order code

#### Other lengths for the fixed stem

Add **X** at the end of the order code : L70mm X=1 (not for 175/275°C) / L102mm X=3  
L229mm X=5 / L305mm X=7

#### Other capillary lengths

Add **X** at the end of the order code : L1.5m X=1 / L4,5m X=3 / L6m X=5 / L7.5m X=7

# T4 - T7 (ATEX) Series

## T4 Series, narrow fixed deadband

Temperature range	Max temperature	Fixed deadband (contact 20)		Fixed stem G1/2 L152mm	Stem L76mm + capillary 3m	
		min	max			
-40	16°C	204°C	0.6°C	1.1°C	296 800F	296 820F
-20	40°C	204°C	0.8°C	1.7°C	296 802F	296 822F
20	95°C	204°C	0.8°C	1.9°C	296 804F	296 824F
65	125°C	204°C	0.8°C	1.7°C	296 806F	296 826F
110	190°C	260°C	0.8°C	1.7°C	296 808F	296 828F
175	275°C	371°C	1.1°C	2.5°C	296 810F	296 830F
260	400°C	482°C	2.2°C	4.4°C	-	296 832F

NPT : add **N** at the end of the order code      Supplied without sliding connection

Sliding connection to be ordered separately (G1/2)

On stem : 296890    On capillary : 296891    NPT : add **N** at the end of the order code

Other lengths for fixed stem or capillary

See the page before

## T4 Series, adjustable deadband

Temperature range	Max temperature	Adjustable deadband (contact 50)		Fixed stem G1/2 L152mm	Stem L76mm + capillary 3m	
		min	max			
-40	16°C	204°C	0.8°C	3.1°C	296 800R	296 820R
-20	40°C	204°C	1.2°C	4.7°C	296 802R	296 822R
20	95°C	204°C	1.4°C	6.7°C	296 804R	296 824R
65	125°C	204°C	1.2°C	4.7°C	296 806R	296 826R
110	190°C	260°C	1.2°C	4.7°C	296 808R	296 828R
175	275°C	371°C	1.8°C	6.7°C	296 810R	296 830R
260	400°C	482°C	4°C	13.3°C	-	296 832R

NPT : add **N** at the end of the order code      Supplied without sliding connection

Sliding connection to be ordered separately (G1/2)

On stem : 296 890    On capillary : 296 891    NPT : add **N** at the end of the order code

Other lengths for fixed stem or capillary

See the previous page

## T7 Series, ATEX version

To order T7 Series, select T4 order code and add the following suffix :

ATEX Version	Suffix
Intrinsically safe : ExII 1GD T85°C IP6X EEx ia IICT4	<b>A</b>
Flameproof enclosure : ExII 2GDEx d IICT6	<b>D</b>

Sliding connection to be ordered separately (G1/2)

On stem : 296 890    On capillary : 296 891    NPT : add **N** at the end of the order code

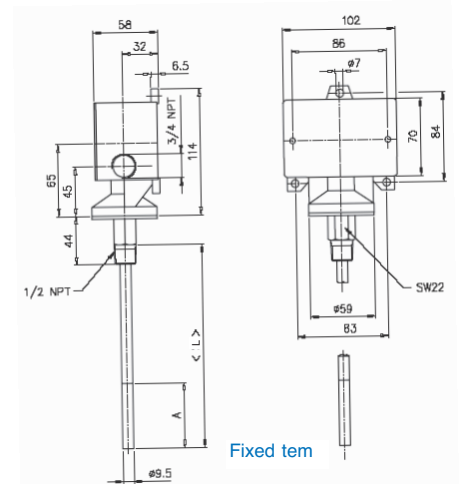
Other lengths for fixed stem or capillary

See the previous page

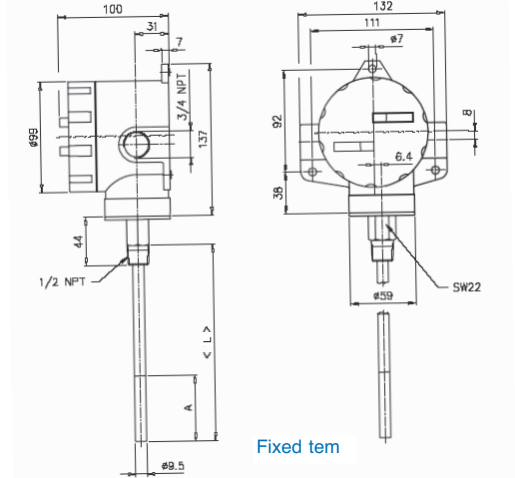
## Options

- . Other measuring ranges
- . 2 SPDT switches, simultaneous thresholds, add **S** at the end of order code, not simultaneous : other Series on request
- . Gold contact, under nitrogen hermetically sealed switch
- . Cleaning for oxygen
- . IP65 version, add **P** at the end of the order code

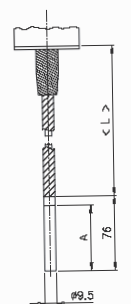
T4



T7



With capillary





# Pressure transmitters

## G1/4

## 8040 Series

Pressure transmitters, CITEC 8040 Series, are designed for industrial applications, hydraulic or pneumatic equipments and mobile machinery. Compact and robust. Pressure up to 1000 bar, process temperature up to 125°C.

Accuracy 0.5%, -1 to 1000 bar, G1/4 connection

### Product specifications

. Pressure range	-1 to 1000 bar
. Overpressure limit	2xFS ; 1.5xFS from 250 to 600 bar 1.2xFS for 1000 bar
. Burst pressure	5xFS up to 40 bar, 3xFS from 60 to 600 bar 1.5xFS for 1000 bar
. Output signal	4-20mA 2 wires, 0-10V 3 wires
. Power supply	12-30Vdc
. Accuracy (at 20°C) (linearity, hysteresis, repeatability)	±0.25%FS typ, ±0.50%FS max
. Error bandwidth (-20°C to 85°C)	1%FS max
. Compensated temp. range	-20°C to 85°C
. Long term drift	0.1%FS/year not cumulative
. Process temperature	medium : -40°C to 125°C, ambient : -40°C to 105°C
. Response time	1ms
. Service life	>100 million cycles
. Vibration resistance	20g sinusoidal from 20Hz to 2KHz, IEC68-2-6/2-36
. Shock resistance	fall of 1m according to 3 axes, IEC68-2-32
. Materials	. body and connection : 316 stainless steel . diaphragm : 17-4PH stainless steel welded
. Process connection	G1/4 Viton o-ring, other in option
. Electrical connection	DIN 175301-803/C, plug supplied
. Protection	IP65, IP67 with M12 connector or cable
. Dimensions	total H 85mm, except thread : 72, hexa 22, plug H 26
. Weight	70g, 60g without plug



### Order codes, 4-20mA output

Measuring range	Order code (gauge pressure)
-1 0 bar	850 002
-1 1.5 bar	850 004
-1 3 bar	850 006
-1 5 bar	850 008
-1 9 bar	850 010
-1 15 bar	850 012
-1 24 bar	850 014
0 0.6 bar	850 032
0 1 bar	850 034
0 1.6 bar	850 036
0 2.5 bar	850 040
0 4 bar	850 042
0 6 bar	850 044
0 10 bar	850 046
0 16 bar	850 048
0 25 bar	850 052
0 40 bar	850 054
0 60 bar	850 058
0 100 bar	850 060
0 160 bar	850 062
0 250 bar	850 066
0 400 bar	850 068
0 600 bar	850 070
0 1000 bar	850 072

#### Order codes, 0-10V, gauge pressure

Replace 850 xxx by **851 xxx**

#### Order codes, absolute pressure (1 to 25 bar)

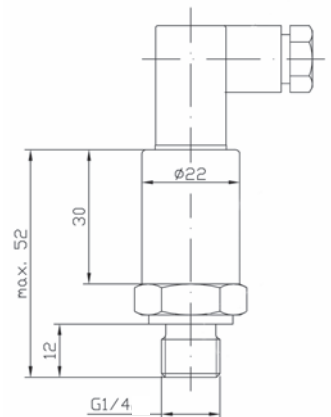
4-20mA output : replace 850 xxx by **853 xxx**

0-10V output : replace 850 xxx by **854 xxx**

#### Options

- . Cleaning for oxygen : add **X** at the end of order code
- . 0-5V, 1-5V outputs
- . Process connection : G1/4 without o-ring, 1/4NPT, 7/16UNF...
- . Restrictor : add **R** at the end of order code
- . Cable connection : add Cxx at the end of order code (standard : C02, 2m cable)
- . M12 connection 4cts, IP67 : add M0 at the end of order code
- . Electrical connections : AMP IP67, DIN 72585, IP68
- . Diaphragm seal mounting

**Note** : Prevent any pressure shock with protection



#### Electrical connection

4-20mA	0-10V
1 : +V	1 : +V
2 : Output	2 : -V, Output-
	3 : Output+

# Pressure transmitters

## G1/2

## 8060 Series

Pressure transmitters, CITEC 8060 Series, are designed for industrial applications, hydraulic or pneumatic equipments.

Accuracy 0.5%, -1 to 600 bar, G1/2 connection

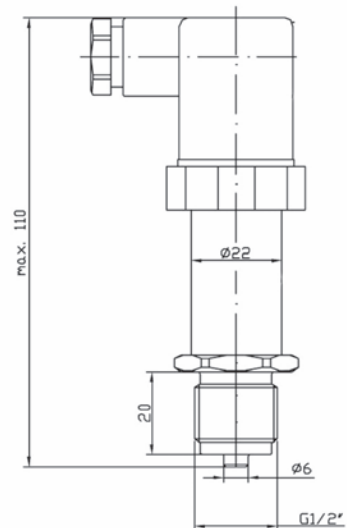
### Product specifications

. Pressure range	-1 to 600 bar
. Overpressure limit	2xFS ; 1.5xFS from 250 to 600 bar
. Burst pressure	5xFS up to 40 bar, 3xFS from 60 to 600 bar
. Output signal	4-20mA 2 wires, 0-10V 3 wires
. Power supply	12-30Vdc
. Accuracy (at 20°C) (linearity, hysteresis, repeatability)	±0,25%FS typ, ±0,50%FS max
. Error bandwidth (-20°C to 85°C)	1%FS max
. Compensated temp. range	-20°C to 85°C
. Long term drift	0,1%FS/year not cumulative
. Process temperature	process : -40°C to 125°C, ambient : -40°C to 105°C
. Response time	1ms
. Endurance	>100 millions cycles
. Vibration resistance	20g sinusoidal from 20Hz to 2KHz, IEC68-2-6/2-36
. Shock resistance	fall of 1m according to 3 axes, IEC68-2-32
. Materials	. body and connection : 316 stainless steel . diaphragm : 17-4PH stainless steel welded
. Process connection	G1/2, other in option
. Electrical	DIN 43650/A, plug supplied
. Protection	IP65, IP67 with M12 connector or cable
. Weight	150g



### Order codes, 4-20mA output

Measuring range	Order code (gauge pressure)
-1 0 bar	850 402
0 1 bar	850 434
0 2.5 bar	850 440
0 4 bar	850 442
0 6 bar	850 444
0 10 bar	850 446
0 16 bar	850 448
0 25 bar	850 452
0 40 bar	850 454
0 60 bar	850 458
0 100 bar	850 460
0 160 bar	850 462
0 250 bar	850 466
0 400 bar	850 468
0 600 bar	850 470



### Order codes, 0-10V output, gauge pressure

Replace 850 4xx by **851 4xx**

### High temperature adapter

For medium temperature up to 150°C, use adapter **894 810**  
See page 29

### Option

- . Pressure range up to 7000 bar
- . Digital indicator to be inserted between plug and receptacle
- . Diaphragm seal mounting, hygienic version with Clamp

**Note** : Prevent any pressure shock with protection

### Electrical connection

4-20mA	0-10V
1 : +V	1 : +V
2 : Output	2 : -V, Output-
	3 : Output+

# Pressure transmitters

## OEM

### 8050 Series

OEM pressure transmitters, CITEC 8050 Series, are designed for general industrial pneumatic or hydraulic applications  
 Compact, ceramic sensor

Accuracy 1%, -1 to 400 bar, G1/4 or G1/2 connection

#### Product specifications

. Pressure range	-1 to 400 bar
. Overpressure limit	5 bar for $P \leq 2.5$ bar 2xFS for $P \leq 250$ bar 1.5xFS for $P \geq 400$ bar
. Measuring element	ceramic sensor
. Output signal	4-20mA 2 wires
. Power supply	8-30 Vdc
. Accuracy (at 20°C) (linearity, hysteresis, repeatability)	$\pm 0.50\%$ FS typ., $\pm 1.00\%$ FS max
. Thermal drift (0°C to 80°C)	$\pm 2.5\%$ FS max
. Process temperature	ambient : 0°C to 60°C medium : 0°C to 80°C
. Material	. body and connection : 316L stainless steel . wetted parts : 316L stainless steel, ceramic, viton o-ring
. Process connection	G1/4, viton o-ring (DIN3852-E) G1/2 (EN837)
. Electrical connection	DIN 43650/A, plug supplied
. Protection	IP65
. Weight	G1/4 version : 120g, G1/2 version : 160g

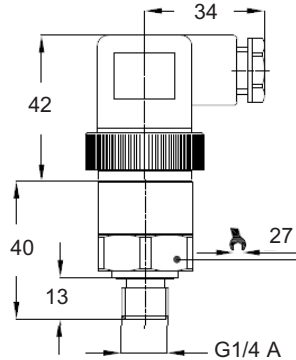


#### Order codes, 4-20mA output, gauge pressure

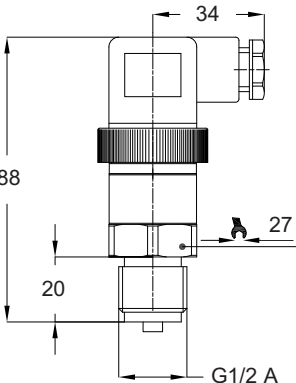
Measuring range	Order code	
	G1/4	G1/2
-1 0 bar	890 202	890 002
0 1 bar	890 234	890 034
0 4 bar	890 242	890 042
0 6 bar	890 244	890 044
0 10 bar	890 246	890 046
0 16 bar	890 248	890 048
0 25 bar	890 252	890 052
0 40 bar	890 254	890 054
0 250 bar	890 266	890 066
0 400 bar	890 268	890 068

Note : Prevent any pressure shock with protection

G1/4 Model



G1/2 Model



#### 4-20mA electrical connection

- 1 : +V
- 2 : Output

# Pressure transmitters flush diaphragm 8020 Series

Pressure transmitters, CITEC 8020 Series, are designed for viscous, pasty or crystallizable media

Options : high accuracy, high temperature, ATEX

Accuracy 0.5%, option 0.25%, -1 to 400 bar, G1/2 connection flush diaphragm

## Product specifications

. Pressure range	-1 to 400 bar
. Overpressure limit	3xFS ; max 600 bar
. Burst pressure	>200 bar for FS ≤ 25 bar >850 bar for FS ≥ 40 bar
. Output signal	4-20mA 2 wires, 0-10V 3 wires
. Power supply	12-30Vdc (15-30V if 0-10V output)
. Accuracy (at 20°C) (linearity, hysteresis, repeatability)	±0.25%FS typ, ±0.50%FS max
. Compensated temperature range	-20°C to 70°C
. Thermal drift of zero	±0.050%FS/°C max
. Thermal drift of span	±0.040%FS/°C max
. Process temperature	-20°C to 70°C
. Material	body and connection : 304 stainless steel, diaphragm : 316L stainless steel
. Process connection	G1/2 flush diaphragm, 304 stainless steel, Viton o-ring
. Electrical connection	DIN 43650/A base, plug supplied
. Protection	IP65
. Weight	180g

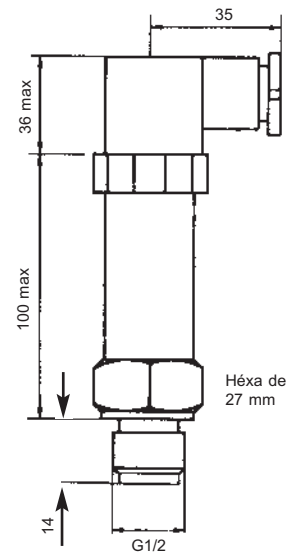


## Order codes, 4-20mA output

Measuring range	Order code (gauge pressure)
-1 0 bar	<b>800 802</b>
-1 1.5 bar	<b>800 804</b>
0 1 bar	<b>800 834</b>
0 1.6 bar	<b>800 836</b>
0 2.5 bar	<b>800 840</b>
0 4 bar	<b>800 842</b>
0 6 bar	<b>800 844</b>
0 10 bar	<b>800 846</b>
0 16 bar	<b>800 848</b>
0 25 bar	<b>800 852</b>
0 40 bar	<b>800 854</b>
0 60 bar	<b>800 858</b>
0 100 bar	<b>800 860</b>
0 160 bar	<b>800 862</b>
0 250 bar	<b>800 866</b>
0 400 bar	<b>800 868</b>

### Options

- . Other measuring ranges
- . 0-5V output signal
- . Accuracy 0.25% max :  
add **P** at the end of order code
- . High temperature 150°C max :  
add **T** at the end of order code
- . Increased performance for overpressure resistance
- . With shocks absorber
- . EEx ib IIC T6 version :  
add **A** at the end of order code
- . Cable connection (IP67)
- . M12 connection
- . Digital display
- . Hygienic version with Clamp



## Order codes, 0-10V output, gauge pressure

Replace 800 xxx by **801 xxx**

## Order codes, absolute pressure

4-20mA output : replace 800 xxx by **803 xxx**

0-10V output : replace 800 xxx by **804 xxx**

## Electrical connection

4-20mA	0-10V
1 : +V	1 : +V
2 : Output	2 : -V, Output-
	3 : Output+

**Note** : Prevent any pressure shock with protection

# RTD probes, head type Pt100

## 2000 - 2050 Series

Head type RTD probes, CITEC 2000 and 2050 Series, are designed for all industrial applications

Threated or plain stem. Aluminium, plastic or miniature head

Options : dual Pt 100, ATEX

-50°C to 450°C

### Product specifications

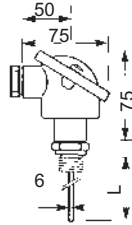
. Temperature range	-50°C to 220°C or -50°C to 450°C
. Measuring element	Pt100 platinum RTD according to EN 60751 3 wires connections
. Tolerance	class B
. Connection head	aluminium IP54 or IP67 ; plastic (Itamid) IP54
. Stem	316 stainless steel, Ø 6 mm, L 50 to 300mm
. Connection	G1/2 threaded or plain stem with possible G1/2 or G1/4 sliding connection



### 2000 Series - Pt100 with standard connection head (Aluminium IP54, PG16)

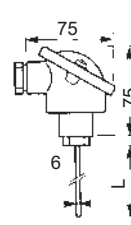
#### With G1/2 thread

L mm	Order code	
	-50 +220°C	-50 +450°C
50	220 402	220 412
100	220 404	220 414
150	220 400	220 410
200	220 403	220 413
250	220 407	220 417
300	220 405	220 415



#### Plain stem (without thread)

L mm	Order code	
	-50 +220°C	-50 +450°C
50	220 002	220 012
100	220 004	220 014
150	220 000	220 010
200	220 003	220 013
300	220 005	220 015



NPT : add **N** at the end of the order code

### 2000E Series - G1/2 threaded stem with extension

Add **Exxx** at the end of order code. (xxx : length extension in mm)

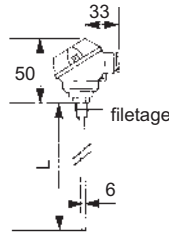
Example : 220 404 with 100mm extension becomes 220 404E100



### 2050 Series - Pt 100 with miniature connection head (Aluminium IP54, PG9)

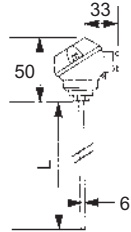
#### With G1/2 thread

L mm	Order code	
	-50 +220°C	-50 +450°C
50	220 800	220 805
100	220 810	220 815
150	220 830	220 835
200	220 840	220 845
300	220 850	220 855



#### Plain stem (without thread)

L mm	Order code	
	-50 +220°C	-50 +450°C
50	220 600	220 605
100	220 610	220 615
150	220 630	220 635
200	220 640	220 645
300	220 650	220 655



NPT : add **N** at the end of order code

### Other heads

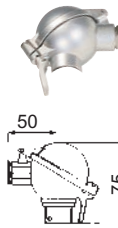
Aluminium IP67, PG 11



#### Order code

replace 220 by **222** from 2000 or 2100 Series

With clip, aluminium IP54, PG 16



#### Order code

replace 220 by **223** from 2000 or 2100 Series

Plastic (Itamid), IP54, PG 16



#### Order code

replace 220 by **221** from 2000 or 2100 Series

### Options

- . Class A tolerance, add **P** at the end of order code
- . Other Ø : 3, 8, 10, add **Dx** (x in mm) at the end of order code
- . Other lengths, 30mm to 1500mm, add **Lx** (x in mm) at the end of order code
- . Other connections : 1/8, 1/4, 3/4, NPT, metric, clamp
- . Dual Pt100
- . ATEX

### Sliding connection, thermowell

See page 60

Head type Pt100 probes with 4-20mA converter, CITEC 2100 Series, are designed for all industrial applications  
HART® protocole option

-50°C to 450°C, Pt100 with 4-20mA output

# Head type probe Pt100 with 4-20mA converter 2100 Series

## Product specifications

. Temperature range	-40°C to 220°C or -50°C to 450°C
. Measuring element	platinum RTD Pt100, according to EN 60751 3 wires mounting
. Output signal	4-20mA 2 wires
. Tolerance	Pt100 : class B Converter : 0.15%FS (linearity)
. Power supply	9-36Vdc
. Operating temperature	-10°C to 70°C
. Connection head	aluminium IP54 or IP67 ; plastic IP54
. Stem	316 stainless steel, Ø 6mm, length 50 to 400mm
. Connection	G1/2 threaded or plain stem with a possible G1/2 or G1/4 sliding connection



## Order codes with preset converter

### To order

Converter settings according to measuring range to be indicated at the end of order code. Default setting : 0°C +120°C.

### Example :

220 034/0°C 100°C, will be adjusted with 4mA for 0°C and 20mA for 100°C

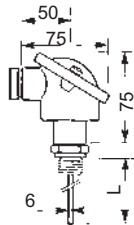
## Standard head

Aluminium IP54, PG16

Default measuring range setting for 4-20mA : 0°C to 120°C

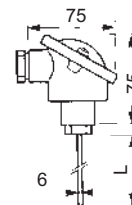
## With G1/2 thread

L mm	Order code	
	-50 +220°C	-50 +450°C
50	220 432/...	220 442/...
100	220 434/...	220 444/...
150	220 430/...	220 435/...
200	220 433/...	220 443/...
300	220 440/...	220 445/...



## Plain stem (without thread)

L mm	Order code	
	-50 +220°C	-50 +450°C
50	220 032/...	220 042/...
100	220 034/...	220 044/...
150	220 030/...	220 035/...
200	220 033/...	220 043/...
300	220 040/...	220 045/...



NPT : add **N** at the end of the order code

## Sliding connection, thermowell

See page 60

## Converter order code

For preset converter, setting to be indicated at the end of order code

**Order code 220 280/...**

Programmable converter with software

<b>Converter</b>	<b>220 281</b>
<b>Software with cable</b>	<b>220 281K</b>



## Options

- . Tolerance class A, add **P** at the end of the order code
- . Other stem Ø : 3, 8, 10, add **Dx** (x in mm) at the end of order code
- . Other lengths, 30mm to 1500mm, add **Lx** (x in mm) at the end of order code
- . Other connections : 1/8, 1/4, 3/4, NPT, metric, clamp
- . ATEX
- . HART® protocole

# RTD probes

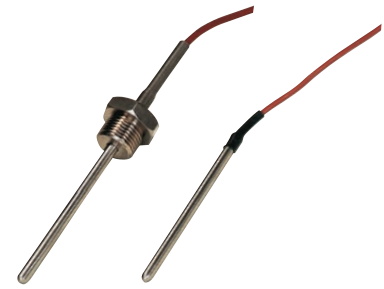
## Pt100 with cable connection

### 2500 Series

Pt100 probes with cable connection, CITEC 2500 Series, are designed for general industrial applications, immersion or air/gas types

-50°C to 220°C, Pt100

. Temperature range	-50°C to 220°C
. Measuring element	platinum RTD Pt100 according to EN 60751, 3 wires connection
. Tolerance	class B
. Stem	316L stainless steel, Ø 6mm, length 50 to 200mm
. Cable	silicon over Teflon sheath (220°C max)
. Stem/cable junction	crimped + stainless steel spring
. Connection	G1/2 threaded or plain stem with a possible G1/2 or G1/4 sliding connection



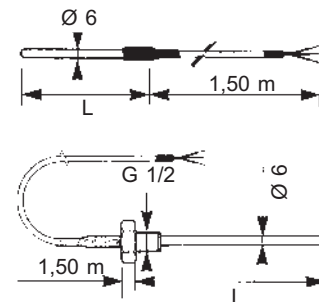
#### Immersion type, no thread

L mm	Order code -50 +220°C
50	220 500
100	220 510
150	220 515
200	220 520

#### Immersion type, with G1/2 thread

L mm	Order code -50 +220°C
50	220 700
100	220 710
150	220 730
200	220 750

NPT : add N at the end of order code



#### Air and gas type

Replace 220 XXX by 221 XXX

#### Sliding connection

See hereunder

#### Options :

- . Other connections : 1/8, 1/4, 3/4, NPT, metric
- . Other Ø 3, 8, 10, add Dx (x in mm) at the end of order code
- . Other stem lengths, 5mm to 1500mm, add Lx (x in mm) at the end of order code
- . Other cable lengths, add Cx (x in meter) at the end of order code
- . Waterproof junction
- . Tolerance class A, add P at the end of order code

## Accessories for temperature probes

#### Sliding connection

316L stainless steel

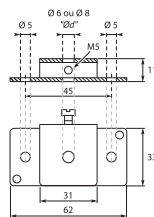
Stem Ø	Thread	Order code
3 mm	G1/8	220 202
6 mm	G1/4	220 200
6 mm	G1/2	220 205
8 mm	G1/2	218 305

NPT : add N at the end of the order code



#### Stainless steel flange

Stem Ø	Order code
6 mm	229 950
8 mm	229 960

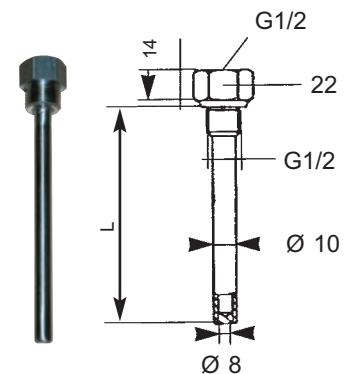


#### Thermowell for Ø 6mm stem

Welded, 316L stainless steel, G1/2

L mm	Order code
50	220 215
63	220 218
100	220 220
150	220 225
200	220 226
250	220 229
300	220 230
400	220 235

NPT : add N at the end of the order code



#### Clamp thermowell for Ø 6mm stem

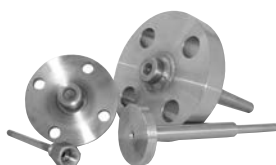
Welded, 316L stainless steel, G1/2

L mm	DN38 (1,5")	DN51 (2")
50	220 215C38	220 215C51
100	220 220C38	220 220C51
150	220 225C38	220 225C51
flange Ø	50.5mm	64mm



#### Thermowells

See page 48



Thermocouple probes, CITEC 2010 and 2510 Series, are designed for all industrial applications  
-50°C to 400°C, TcJ, TcK

# Thermocouple probes 2010-2510 Series

## Product specifications

. Temperature range	-50°C to 400°C
. Measuring element	TcJ, TcK
. Tolerance class	2
. Stem	316L stainless steel Ø 6mm, length 50 to 300mm
. Connection	G1/2 fixed connection or plain stem with possible G1/4 or G1/2 sliding connection
. Protection	IP54



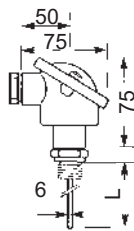
## Order codes

### Thermocouples with connection head - 2010 Series

Standard head. Aluminium IP54, PG16

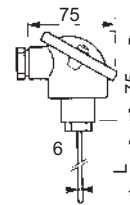
#### With thread G1/2

L mm	Order code	
	TcJ	TcK
50	226 402	227 402
100	226 404	227 404
150	226 400	227 400
200	226 403	227 403
300	226 405	227 405



#### Plain stem (without thread)

L mm	Order code	
	TcJ	TcK
50	226 002	227 002
100	226 004	227 004
150	226 000	227 000
200	226 003	227 003
300	226 005	227 005



NPT : add **N** at the end of the order code

#### With 4-20mA converter - 2110 Series

22x x0x becomes **22x x3x** + requested measuring range required.

### Thermocouples with cable connection - 2510 Series

#### Cable

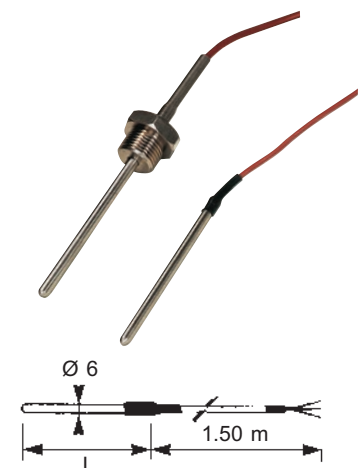
Glass silk cable. Stem/cable junction : hexagonal crimping cable with standing max 400°C.

#### Immersion type, no thread

L mm	Order code	
	TcJ	TcK
50	226 500	227 500
100	226 510	227 510
150	226 515	227 515
200	226 520	227 520

#### Immersion type, with G1/2 thread

L mm	Order code	
	TcJ	TcK
50	226 700	227 700
100	226 710	227 710
150	226 730	227 730
200	226 750	227 750



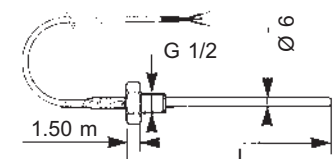
NPT : add **N** at the end of the order code

#### Sliding connection

. See page 60

#### Options

- . Other stem Ø : 3, 8, 10mm, add **Dx** (x en mm) at the end of order code
- . Other stem lengths up to 1500mm, add **Lx** (x en mm) at the end of order code
- . Other cable lengths, add **Cx** (x in meters) at the end of order code
- . Other connections : 1/8, 1/4, 3/4, metric
- . Tolerance class 1, add **P** at the end of order code





High performances portable chart recorders, CITEC RX-RPP Series, are designed for measuring and recording pressure or temperature (water, air, gas, oil...)  
 RPP Model : high-resistant polyethylene, IP67 protection for harsh environments

1 or 2 inputs, 24h or 7 days recording, -200°C to 800°C, -1 to 60 bar

## Portable chart recorders pressure / temperature RX - RPP Series

### Product specifications

. Measuring range	temperature : -200°C to 800°C, min FS : 80°C pressure : -1 to 60 bar, min FS : 1.6 bar
. Accuracy	±1%FS
. Measuring element	temperature : filled pressure : 316 stainless steel bourdon tube
. Movement	nickel plated brass mechanical clockwork (quartz in option)
. Recording period	24h or 7 days rotation speed
. Power supply	mechanical spring wound, 7 days life quartz Model in option with battery, 1 year life
. Chart	RX : Ø 223mm paper RPP : Ø 223 or Ø 300mm paper supplied with 100 charts and 2 pens
. Pressure connection	G1/2, 316L stainless steel, others in option
. Temperature stem / capillary / connection	Ø 8x100mm plain stem, 2m capillary, 316L stainless steel G1/2 sliding connection, 316L stainless steel
. Thermowell (in option)	Ø 12x100mm G1/2, 316L stainless steel
. Operating temperature	RX : 80°C max, RPP : -23°C to 95°C
. Dimensions	see order codes table
. Inclosure	RX : 316L stainless steel RPP : unbreakable polyethylene with hand grip
. Window	plexiglass
. Protection	RX : IP65, RPP : IP67
. Mounting	portable, option : RX wall mounting
. Weight	RX : 6.5kg, RPP 500 : 10.6kg



**RPP Model**  
 very high resistance



**RX Model**

### Order code, 24h rotation speed, mechanical spring wound

Model	Inclosure	Chart	Order code
RX	280x280	Ø223	<b>SRX D280 x*</b>
RPP	400x300	Ø223	<b>SRP D400 x*</b>
	500x400	Ø300	<b>SRP D500 x*</b>

\* Replace x by requested measuring range code according to adjacent table

Example : RPP recorder 300mm chart, pressure 0-6 bar : SRP D500 P44

In case of 2 pressure/temperature inputs version, add the second input code at the end of the order code

### Order code, 7 days rotation speed

Replace D by W in the order code (example : SRP W500 P44)

### Sliding connection, 316 stainless steel thermowell

Thermowell (Ø 12x100mm, G1/2)	<b>218 365</b>
G1/2 sliding connection	<b>218 305</b>

### Supplies

Charts (set of 100)	add <b>E</b> at the end of the recorder order code
Pens (set of 5)	<b>220 757N</b> (black), <b>220 757R</b> (red)

### Options

- . Other measuring ranges
- . Other stem Ø or lengths
- . ATEX for RX Model, EXII2Gc or II2Dc
- . Quartz clockwork with battery, add **Q** at the end of the order code
- . Pressure Model with capillary and diaphragm seal

### Measuring range codification

Pressure	Code	Temperature	Code
0 1.6 bar	<b>P36</b>	-200°C +50°C	<b>T01</b>
0 2.5 bar	<b>P40</b>	-100°C +50°C	<b>T03</b>
0 4 bar	<b>P42</b>	-50°C +50°C	<b>T10</b>
0 6 bar	<b>P44</b>	-40°C +40°C	<b>T13</b>
0 10 bar	<b>P46</b>	-30°C +70°C	<b>T20</b>
0 16 bar	<b>P48</b>	-20°C +60°C	<b>T24</b>
0 25 bar	<b>P52</b>	0°C +80°C	<b>T36</b>
0 40 bar	<b>P54</b>	0°C +120°C	<b>T38</b>
0 60 bar	<b>P58</b>	0°C +200°C	<b>T40</b>
		0°C +250°C	<b>T41</b>
		0°C +400°C	<b>T43</b>
		0°C +600°C	<b>T45</b>

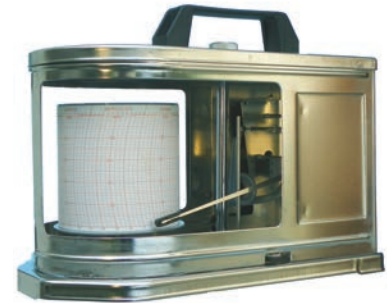
# Portable drum chart recorders temperature - humidity pressure 4900 Series

Portable drum chart recorders, CITEC 4900 Series, are designed for measuring and recording temperature, humidity and pressure

1 or 2 inputs, 24h or 7 days rotation speed  
-35°C to 200°C, 0-100%RH, 40 mbar to 400 bar

## Product specifications

. <b>Measuring range</b>	. temperature : . ambient version : -35°C to 45°C . stem version : -20°C to 200°C . humidity : 0 to 100%RH . atmospheric pressure : 700 to 800 mmHg . gauge pressure : 40 mbar to 400 bar
. <b>Accuracy</b>	. temperature : ±1%FS . humidity : ±3%HR . pressure : ±1.6%FS
. <b>Measuring element</b>	. temperature : bimetal or filled . humidity : hair . atmospheric pressure : capsule . pressure : capsule or bourdon tube
. <b>Movement</b>	quartz clockwork, option : mechanical
. <b>Recording period</b>	24h or 7 days rotation speed, selectable
. <b>Power supply</b>	battery 1.5V AA-LR6 supplied, 1 year life duration
. <b>Chart</b>	preprinted paper supplied with 100 charts and 1 pen
. <b>Pressure connection</b>	0 to 400 bar : G1/2, 316 stainless steel 0 to 600 mbar : G1/2, brass
. <b>Temperature stem with capillary (external stem)</b>	∅ 11x100mm plain stem, 1m capillary, 304 SS G1/2 sliding connection on capillary, 304 SS
. <b>Thermowell (in option)</b>	∅ 14x100mm, G1/2, 304 SS
. <b>Housing, dimensions</b>	AISI 304 SS, 280x150x180mm
. <b>Protection, weight</b>	IP20, 2.7kg



## Order codes, 24h/7 days rotation speed, with battery

Model	Measuring range	Référence
Barograph	700-800 mmHg	203 720
Ambient thermograph	see codification table	203 730x*
Hygrograph	0 to 100%RH	203 760
Ambient thermo-hygrograph	temperature : see codification humidity : 0 to 100%RH	203 780x*
Thermograph, external stem	see codification table	203 740x*
Pressure recorder	see codification table	203 750x*

\* Replace x by the requested measuring range code according to adjacent table

Example : recorder, pressure 0-10 bar : 203 750 P46

(2 inputs version, add the second input code at the end of order code)

### Supplies

Charts (set of 100)	add <b>E</b> at the end of the recorder order code
Pens (set of 2)	<b>203 754</b>

### Thermowell

∅ 14x100mm, G1/2, 304 stainless steel

Order code **220 223**

### Options

- . Mechanical clockwork, add **M** at the end of order code
- . Thermo-hygro-barograph Model
- . Pressure/temperature Model
- . 2 temperatures Model
- . 2 pressures Model
- . Other ranges

## Measuring range codification

Pressure	Code	Temperature	Code
0 40 mbar	<b>P18</b>	-20°C to 60°C	<b>T24</b>
0 60 mbar	<b>P20</b>	-15°C to 45°C	<b>T30A(1)</b>
0 100 mbar	<b>P22</b>	-10°C to 50°C	<b>T30</b>
0 160 mbar	<b>P24</b>	-35°C to 45°C	<b>T19A(1)</b>
0 250 mbar	<b>P28</b>	-30°C to 30°C	<b>T18</b>
0 400 mbar	<b>P30</b>	0°C to 40°C	<b>T34(1)</b>
0 600 mbar	<b>P32</b>	0°C to 60°C	<b>T35</b>
0 1 bar	<b>P34</b>	0°C to 100°C	<b>T37</b>
0 1.6 bar	<b>P36</b>	0°C to 200°C	<b>T40</b>
0 2.5 bar	<b>P40</b>		
0 4 bar	<b>P42</b>		
0 6 bar	<b>P44</b>		
0 10 bar	<b>P46</b>		
0 16 bar	<b>P48</b>		
0 25 bar	<b>P52</b>		
0 40 bar	<b>P54</b>		
0 60 bar	<b>P58</b>		
0 100 bar	<b>P60</b>		
0 160 bar	<b>P62</b>		
0 250 bar	<b>P66</b>		
0 400 bar	<b>P68</b>		

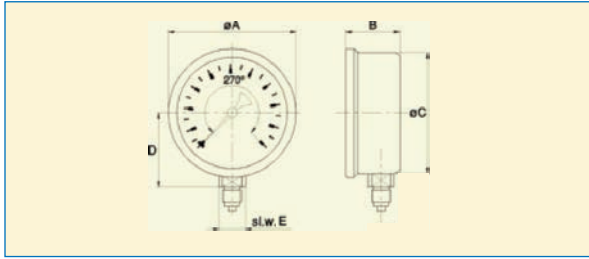
  

Temperature / humidity	Code
-15°C to 45°C/ 0-100%	<b>TH23A</b>
-15°C to 65°C/ 0-100%	<b>TH24A</b>
0°C to 40°C/ 0-100%	<b>TH34</b>

(1) Available ranges for ambient thermograph

# PRESSURE GAUGES DIMENSIONS

## ■ 6000 - 2100 - 2100H Series



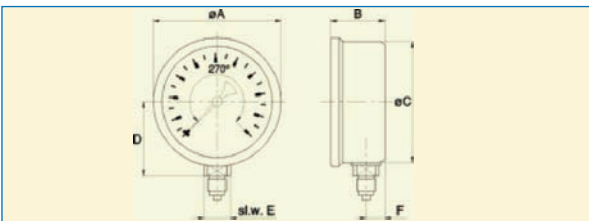
### 6000 Series

Ø	A	B	C	D	E	Weight (kg)
40	44	26.5	40	27.0	14	0.070
50	53	27.0	50	31.5	14	0.095
63	67	28.5	63	38.5	14	0.125
80	84	29.5	80	47.0	14	0.180
100	104	29.5	99	57.0	14	0.250

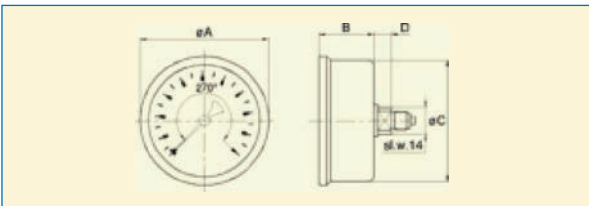
### 2100 - 2100H Series

Ø	A	B	C	D	E	Weight (kg)
50	57	27	52	41	14	0.15
63	68	30	62	45	14	0.20
100	107	33	100	72	22	0.60

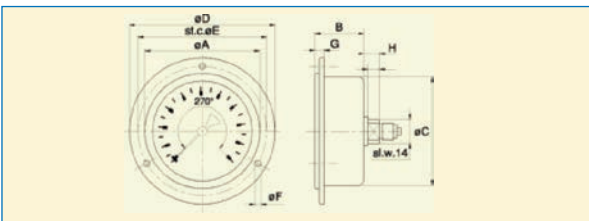
## ■ 7110 - 7210 Series



Ø	A	B	C	D	E	F	Dry (kg)	Filled (kg)
40	44	26,5	40	27.0	14	10	0.070	0.090
63	67	28,5	63	38.5	14	10	0.125	0.195
100	105	46,5	99	63.0	22	17	0.520	0.820

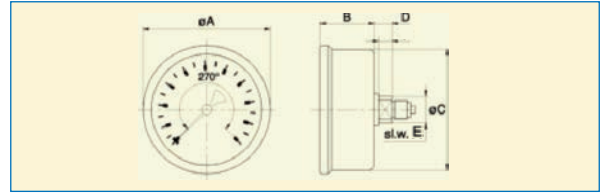


Ø	A	B	C	D	Dry (kg)	Filled (kg)
40	44	27,0	40	7.0	0.07	0.090
63	67	28,0	63	9.5	0.11	0.185



Ø	A	B	C	D	E	F	G	H	Dry (kg)	Filled (kg)
40	44	27.0	40	61	51	3.6	7.0	7.0	0.08	0.110
63	67	28.0	63	85	75	3.6	9.0	9.5	0.15	0.205

## ■ 6000 - 2100 - 2100H Series

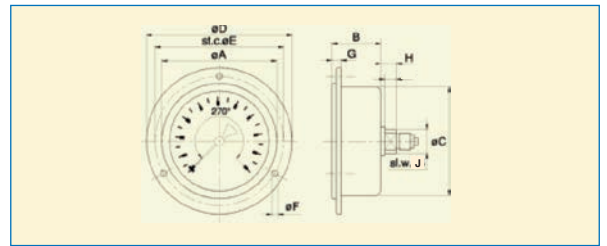


### 6000 Series

Ø	A	B	C	D	E	Weight (kg)
40	44	27	40	7.0	14	0.070
50	53	27	50	7.0	14	0.085
63	67	28	63	9.5	14	0.110
80	84	30	80	10.5	14	0.150
100	104	30	99	10.5	14	0.245

### 2100 - 2100H Series

Ø	A	B	C	E	Weight (kg)
50	53	27	50	14	0.15
63	68	30	62	14	0.22
100	107	33	100	22	0.55



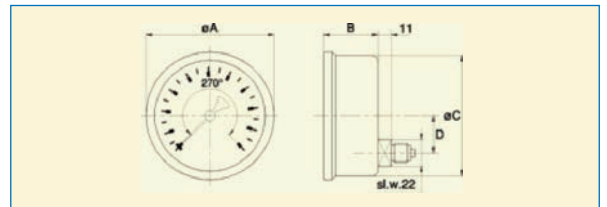
### 6000 Series

Ø	A	B	C	D	E	F	G	H	J	Weight (kg)
40	44	27.0	40	61	51	3.6	7.0	7.0	14	0.080
50	53	27.5	50	71	60	3.6	7.0	7.0	14	0.105
63	67	28.0	63	85	75	3.6	9.0	9.5	14	0.135
80	84	30.0	80	110	95	4.8	9.5	10.5	14	0.195
100	104	30.0	99	132	116	4.8	9.5	10.5	14	0.290

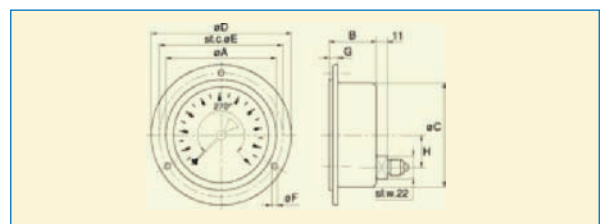
### 2100 - 2100H Series

Ø	A	B	C	D	E	F	G	J	Weight (kg)
50	57	27	52	70	60	3.6	5.5	14	0.18
63	68	30	62	88	75	3.6	7	14	0.26
100	107	33	100	134	116	6	8.5	22	0.61

## ■ 7110 - 7210 Series



Ø	A	B	C	D	Dry (kg)	Filled (kg)
100	105	46.5	99	33.4	0.56	0.875



Ø	A	B	C	D	E	F	G	H	Dry (kg)	Filled (kg)
100	105	46.5	99	132	116	4.8	7.5	33.4	0.63	0.940



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