

# Safety Pressure Gauges

## “Solid-Front”

E-06.13

# RUEGER

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## PBXSF100, PBXSF150



These Solid-Front instruments are built in accordance with safety specifications of EN 837.1 and ANSI B40.1. The safety construction consists of a solid separating wall in stainless steel, placed between the scale and the elastic element and a blow out back which is released from the case whenever an internal pressure, due to leaks, is created or the elastic element is broken. These instruments are designed for use in food, beverage, pharmaceutical, cryogenics, chemical and petrochemical processing industries, and in conventional and nuclear power plants. They are built to resist the most severe operating conditions created by the ambient environment and the process medium.

### Functional and constructive characteristics

#### PBXSF100X..., PBXSF150X...

**Accuracy class** : 1 as per EN 837.1.  
**Ambient temperature** : -25...+65°C.  
**Process fluid temperature** : -40...+150°C.  
**Overpressure limit** : 30% of full scale value.  
**Socket material** : AISI 316L st.st.  
**Elastic element** : AISI 316L st.st.  
**Case** : stainless steel.  
**Ring** : st.st., bayonet lock.  
**Blow out disk** : stainless steel  
**Window** : safety glass.  
**Movement** : stainless steel.  
**Dial** : aluminium, white with black marking.  
**Special dial** : ranges different from standard, available on request.  
**Pointer** : aluminium alloy.  
**Gasket, blow out vent and filling plug** : EPDM.

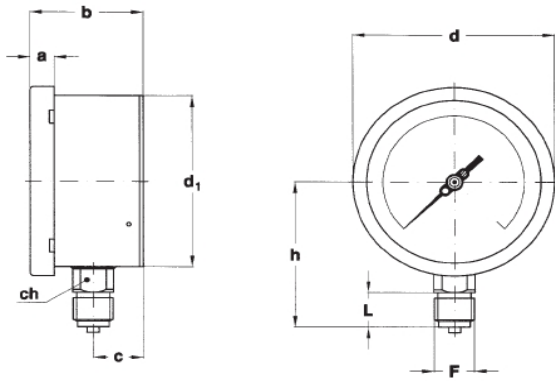
#### PBXSF100L..., PBXSF150L... Liquid filled

**Ambient temperature** : depending of liquid filling.  
**Process fluid temperature** : +65°C.  
**Damping liquids** : glycerine 98% or silicon oil.  
**Other characteristics** : as Standard Model.

**Options** : on request

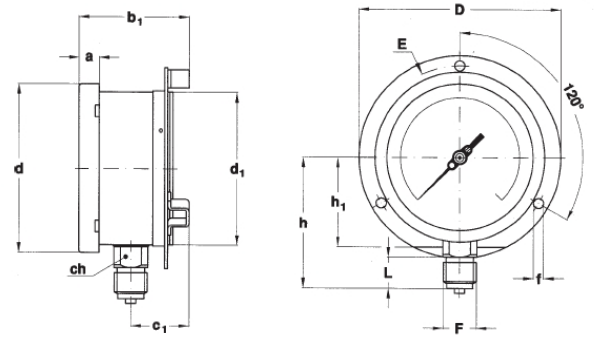
# PBXS F100, PBXS F150

## TYPE AND DIMENSIONS



### TYPE A

Stem mounting; lower connection



### TYPE B

Surface mounting, back flange; lower connection

DS	Type	a	b	b <sub>1</sub>	c	c <sub>1</sub>	d	d <sub>1</sub>	f	h <sub>1</sub>	D	E	ch
100	A-B	13	62.5	74	29.5	41	110.6	101	6	-	132	118	22
150	A-B	15	64	75.5	30	41.5	161	149.6	6	85	190	175	22

(dimensions in mm.)

## PROCESS CONNECTIONS

F	DS 100			DS 150		
	L	h	p	L	h	p
1/4" BSP M	13	79	93.5	13	110	94
1/4" NPT M	15	81	95.5	15	112	96
3/8" BSP M	16	86	95.5	16	117	96
3/8" NPT	16	86	95.5	16	117	96
1/2" BSP M	20	86	95.5	20	117	96
1/2" BSP M tapered M	20	86	95.5	20	117	96
1/2" NPT	20	86	95.5	20	117	96
M20 x 1.5	20	86	95.5	20	117	96

(dimensions in mm)

# PBXSF100, PBXSF150

**RANGES** - «E» = Available ranges for PBXSF100; «G» = available ranges for PBXSF150.

## PRESSURE

TAB. 1

RANGE	bar	kPa	MPa	bar ext.	bar ext.	bar ext.
				psi int.	kPa int.	MPa int.
0...0.6 (1)	EG			EG	EG	
0...1	EG			EG	EG	
0...1.6	EG		EG	EG	EG	
0...2.5	EG		EG	EG	EG	
0...4	EG		EG	EG	EG	
0...6	EG		EG	EG	EG	
0...10	EG		EG	EG		EG
0...16	EG		EG	EG		EG
0...25	EG		EG	EG		EG
0...40	EG		EG	EG		EG
0...60	EG	EG	EG	EG		EG
0...100	EG	EG	EG	EG		EG
0...160	EG	EG	EG	EG		EG
0...250	EG	EG		EG		EG
0...300	E					
0...400	EG	EG		EG		EG
0...600	EG	EG		EG		EG
0...1000	EG	EG		EG		EG
0...1600	EG	EG		EG		EG
0...2500		EG				

(1) not available for PBXSF100-150L\_ (filled)

TAB. 2

RANGE	psi	psi int.	psi ext.	psi ext.
		kPa ext.	bar int.	Kg/cm <sup>2</sup> int.
0...15	EG	EG	EG	EG
0...30	EG	EG	EG	EG
0...60	EG	EG	EG	EG
0...100	EG	EG	EG	EG
0...160	EG	EG	EG	EG
0...200	EG	EG	EG	EG
0...300	EG	EG	EG	EG
0...400	EG	EG	EG	EG
0...600	EG	EG	EG	EG
0...1000	EG	EG	EG	EG
0...1500	EG	EG	EG	EG
0...2000	EG	EG	EG	EG
0...3000	EG	EG	EG	EG
0...4000	EG	EG	EG	EG
0...5000	EG	EG	EG	EG
0...6000	EG	EG	EG	EG
0...10000	EG	EG	EG	EG
0...15000	EG	EG	EG	EG
0...20000	EG	EG	EG	EG
0...30000 (1)	E	E	E	E

(1) Working pressure: max 75% of the full scale value  
over pressure limit: 10% of the full scale value

## VACUUM & COMPOUND

TAB. 4

RANGE	bar	kPa	bar ext.	bar ext.
			psi int.*	kPa int.
-1...0	EG		EG	EG
-1...0.6	EG		EG	EG
-1...1.5	EG		EG	EG
-1...3	EG		EG	EG
-1...5	EG		EG	EG
-1...9	EG		EG	EG
-1...15	EG		EG	EG
-1...24	EG		EG	EG
-100...0		EG		
-100...150		EG		
-100...300		EG		
-100...500		EG		
-100...900		EG		
-100...1500		EG		
-100...2400		E		

\* vacuum unit of measurement: "inHg"

TAB. 3 – Receiver

External	Internal	Internal
	0÷100 linear	0÷100 quadratic
0.2...1 bar	EG	EG
0.2...1 Kg/cm <sup>2</sup>	EG	EG
3...15 psi	EG	EG
20...100 kPa	EG	EG

TAB. 5

RANGE	psi*	psi int.*	psi ext.*	psi ext.*
		psi int.*	bar int.	Kg/cm <sup>2</sup> int.
-30...0	EG	EG	EG	EG
-30...15	EG	EG	EG	EG
-30...30	EG	EG	EG	EG
-30...150	EG	—	EG	—

\* vacuum unit of measurement: "inHg"

TAB. 6 – NH<sub>3</sub>

bar external	NH <sub>3</sub> internal	
-1...5	-70...+9°C	E
-1...9	-70...+25°C	E
-1...15	-70...+40°C	E
-1...24	-70...+56°C	E

# PBXSF100, PBXSF150

## ACCESSORIES

### Diaphragm seals :

A complete range of diaphragm seals are available with a choice of materials of construction. Specifically for corrosive and difficult process fluids applications.

### Adjustable overload protector :

This is useful for installations which may generate high overpressures; the pressure gauge is automatically excluded at the pre-set pressure and cut in again automatically when the operating pressure returns to normal.

### Valves :

On request.

### Pigtail and siphons :

Recommended with temperatures of 65°C (150°F) or over.

### Pressure snubbers :

On request.

Modifications reserved




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