

Model 225T Heavy Duty Pressure Transmitters

Description

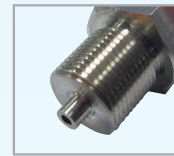
The smart pressure transmitter model 225T is a high-performance, highly reliable gauge/absolute pressure transmitter based on a BCM silicone piezoresistive pressure sensor. The transmitter uses HART protocol so that it can easily communicate with other devices.

The 225T is designed to be used in hazardous locations where explosion proof (Ex d II CT6) is needed, and is able to measure aggressive pressure media by choosing as a pressure diaphragm made from Hastelloy-C.

Two types of wetted parts structure are available for the 225T. One is inner-cavity type which is for gases or dilute fluids measurement, while the other is for measurement of viscous fluids or media containing solids.

Features

- pressure ranges: 0~15 mbar, ..., 0~420 bar, G
- output signal: 4~20 mA with HART protocol
- accuracy: 0.2 %fso, 0.5 %fso (standard)
- media temperature range: -40 ~ +125 °C
- material of pressure diaphragm: 316 SS
option: 316L, Hastelloy-C
- explosive-proof: Exd II CT6
- protection class: IP 65

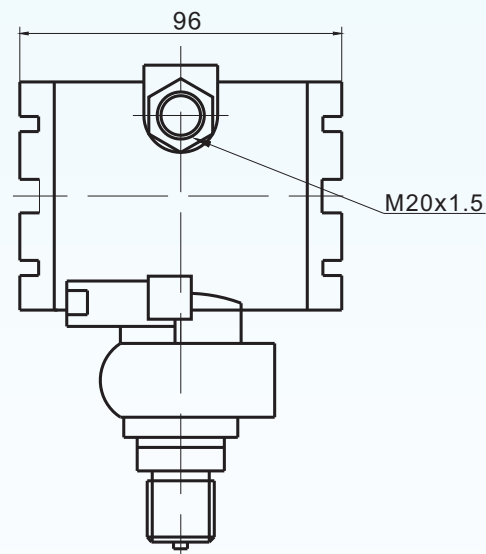
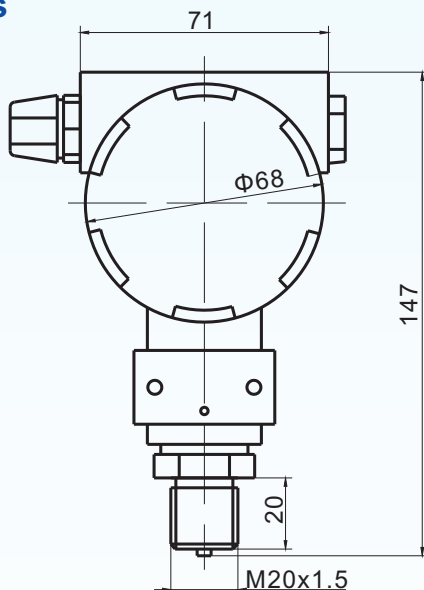


225T (type I): inner cavity



225T (type II): flush diaphragm

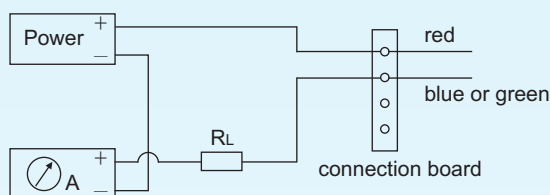
Dimensions



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Electrical connection



Technical Data

Parameter	Units	Specifications
pressure media	type I	gases or dilute liquids (compatible with the wetted parts' materials)
	type II	viscous fluids or fluids with grains (compatible with the wetted parts' materials)
measuring range & type	mbar (G ^{*,**} , A)	0~15, 0~30, 0~50, 0~80, 0~150, 0~250, 0~400, 0~700
	bar (G ^{**} , A)	0~1, 0~2, 0~3.5, 0~7, 0~10, 0~15, 0~25, 0~40, 0~70, 0~100
	barG	0~160, 0~250, 0~350, 0~420
overload pressure	%fs	200 (≥ 150 mbar), 300 (≤ 80 mbar)
output signal	mA	4~20 mA with HART protocol
supply voltage	Vdc	12, ..., 36 (depending on the load resistance)
accuracy	%fs	≤ ±0.2, ≤ ±0.5 (standard)
long-term stability of zero	%fs/year	≤ ±0.15
life time	cycle	10 ⁸
response time	ms	<2
load resistance	Ω	250~1150
storage temperature range	°C	-40~+85
operating temperature range	°C	-20~+80
media temperature range	°C	-40~+125
compensated temperature range	°C	0~70
temperature coefficient of zero	%fso/°C	≤ ±0.01
temperature coefficient of span	%fso/°C	≤ ±0.01
process connection	Type I	M20x1.5 (standard), others are available on request
	Type II	G1/2
electrical connection	Inner thread	M20x1.5 (standard), 1/2 NPT
material of pressure diaphragm		316L SS (standard), Hastelloy-C
housing material		304 SS
environment protection		IP65
explosive-proof	proof rating	Exd II CT6
field display		4 ½ digits LCD display
net weight	kg	~1.2

The listed specifications are subject to change without prior notice.

*: the range of "0~15 mbar, ..., 0~80 mbar" is only suitable for measurement of dry gas media.

** : On request, 225T is available for negative pressure measurement in gauge pressure. The negative pressure range is half of the positive pressure range, but not beyond -1 bar. For example, if the pressure range of the concerned 225T is 0~700 mbarG and this 225T is to be used for negative pressure measurement, then the customer needs to specify the pressure range as (-350/+700)mbarG.

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Ordering Information

position (pos.) 1: model									
225T									
pos. 2: pressure ranges and references									
15mbar	G, A	250mbar	G, A	3.5bar	G, A	40bar	G, A	350bar	G, A
30mbar	G, A	400mbar	G, A	7bar	G, A	70bar	G, A	420bar	G, A
50mbar	G, A	700mbar	G, A	10bar	G, A	100bar	G, A		
80mbar	G, A	1bar	G, A	15bar	G, A	160bar	G, A		G: gauge pressure
150mbar	G, A	2bar	G, A	25bar	G, A	250bar	G, A		A: absolute pressure
pos. 3: output signal									
4/20mA (standard)				4/20mA with HART					
pos. 4: accuracy									
0.2%fs		0.5%fs (standard)							
pos. 5: pressure diaphragm									
316L SS (standard), Hastelloy-C									
pos. 6: mechanical interface									
Type I (M20x1.5) (standard), Type II (G1/2)									
pos. 7: cable connection									
M20x1.5 (standard)				½ NPT					
pos. 8: customized specifications									
“(*)” is necessary only if any customized parameter is required, otherwise it is neglectable.									
pos.1	pos.2	pos.3	pos.4	pos.5	pos.6	pos.7	pos.8		

Examples of Ordering Code

- standard transmitter:

225T-15barG-4/20mA-0.5%fs-316LSS-Type I (M20x1.5)-M20x1.5

- customized transmitter:

225T-(-1/1)barG-4/20mA-0.5%fs-316LSS-Type I (M20x1.5)-M20x1.5-(*).

(*): Customized pressure range = -1~1 barG.

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