

# Accessories – BDT49 overpressure protector

## Description

Adjustable overpressure protectors are used to protect pressure gauges against the effects of pressure exceeding their maximum rating. The BDT49 is spring loaded piston system. Under normal conditions the valve is opened, but when the maximum pressure is exceeded the piston in the valve closes. The valve will remain closed until the system pressure drops approximately 30% below the closing pressure, where upon the force of the spring will open the valve.

## Material of construction

The BDT49 is standard manufactured from AISI 316(L) material and optionally could be manufactured with Alloy 400 wetted parts. The piston, and for lower pressure ranges the bellow, are also a wetted part and thus made from AISI316(L) or Alloy 400. The O-ring mounted to the piston is FKM material.

	BDT49	BDT49-M (Alloy 400)
Body	AISI 316	Alloy 400
Piston		
Bellow*		
Closing cap		
Set screw	AISI316	
Piston gaskets	FKM	

\*Only ranges <6 bar

## Pressure

The BDT49 has different ranges available to ensure accurate closing in case of over pressure. The maximum working pressure depends on the design. The low set point ranges are limited to 400 bar maximum working pressure. The maximum working pressure of the other versions is 1000 bar. The BDT49 is vacuum safe up to -1 bar.

Setpoints (bar)			Design Pressure	MAWP	Temperature range
Lower	Upper	Factory			
0.4	2.5	0.4	400 bar	600 bar	-25..80°C
2	6	2			
4	16	4	600 bar	1000 bar	
10	40	10			
30	80	30			
60	160	60			
100	400	100			



## Accessory setting

As a factory standard the BDT49 overpressure protector is set at the minimum value. When the BDT49 is part of an assembly with a pressure gauge, the BDT49 valve is set at 1.1x the full scale value. The setting of the BDT49 valve can be done on site as well. The installation and operating manual of the BDT49 shows how this could be done.

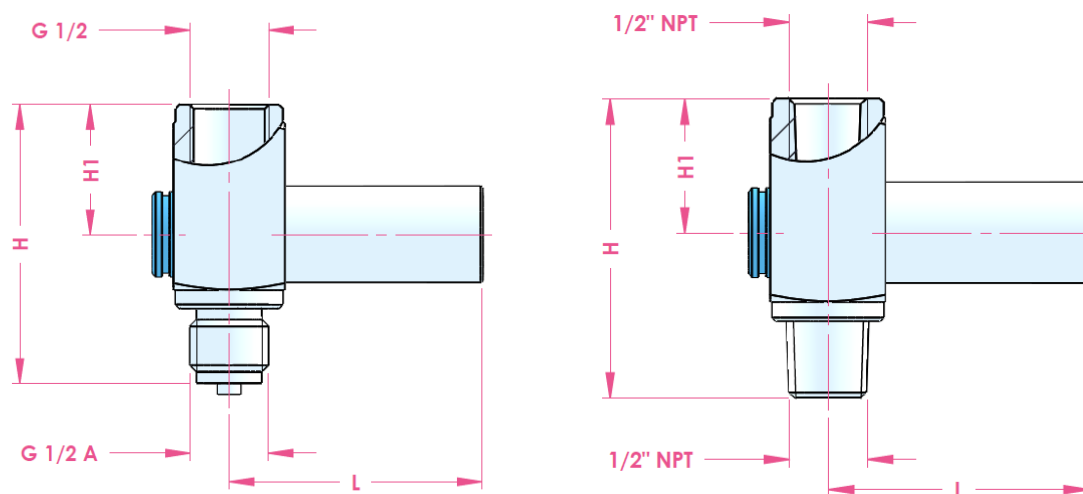
## Marking

The BDT49 is marked with relevant information such as the flow direction, the heat number, pressure range, and material of construction.

## Special service

The overpressure protector is standard lubricated with silicone grease on the O-ring. For special service this lubrication can be done with Krytox® grease and will be tested on in a controlled environment to prevent contamination with oil and grease.

## Dimension table: BDT49



Process	Instrument	H	H1	L
G 1/2 A	G 1/2	78.0	35.0	68.0
M20 x 1.5 - m	M20 x 1.5 - f			
1/2" NPT-m	1/2" NPT-f			

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