Dry All®

Full Range of HVAC&R Line Products

WIKA

PRESSURE SWITCHES

Introduction

WIKA India (WIKA Instruments India Pvt. Ltd) is a wholly-owned subsidiary of WIKA Global (WIKA Alexander Wiegand SE & Co. KG, Germany) and is a specialist in Pressure, Temperature, Level, Flow, & Force for critical industrial applications. WIKA Global has been in measurement technology for 75 years, and in India, WIKA has been present for the last 25 years.

WIKA India has in total four production units which are located in Pune, Chennai, Ghaziabad and Faridabad and has 4 accredited calibration labs associated with each plants that helps in the process of efficient measurements leading to good health of machines.

WIKA, with its focus on efficient instrumentation and measurement technology, aims to provide a platform to check the accuracy of products to any factories and organizations that may want to utilize it. Additionally right balance and measurements add to the safety of the instruments.

Dry All, manufacturer of 'Full Range of HVAC&R Line Products' has partnered with WIKA a global market leader in pressure, temperature and level measurement technology to introduce Pressure Switch under the brand name Dry All - WIKA under their POWER CONTROLS for HVAC&R Systems .

WIKA will provide their complete range of high quality switches exclusively for India market and Dry All will provide all the technical support and local inventory to their OEM customers and their wholesalers across India.

Dry All
Full Range of HVAC&R Line Products
x
WIKA

Product & Applications

HVAC&R APPLICATIONS		District Heating and Boiler Applications
		
Single Pressure Port - PSM-690	Dual Pressure Port - PSM-690	PSM-520

Applications:

- Refrigeration Compressors
- Chillers
- Driers
- HVAC
- Cold Room
- Heat Pump
- Deep Freezers
- Ripening Chambers
- Air Conditioning System
- Environmental test chamber
- Air Dryers
- District Heating
- Boiler Applications

Note: PSM-690 Series is specially used for aforementioned applications
PSM-520 Series is specially use for District Heating and Boiler Applications

Special Features:

- Robust mechanism
- Auto or manual reset
- Designed for use in refrigeration systems
- No tools required to adjust the set-point
- Fail safe double ply bellow element for high pressure

Specification

MODELS AVAILABLE : HVAC&R APPLICATIONS

Sr No.	Model No.	Setting Range (Bar)		Permissible Switch Point on Rising Pressure (Bar)		Differential (Bar)		Max Working Pressure	Port	Reset	Bellows
		Lp	Hp	Lp	Hp	Lp	Hp				
1	PSM-690-L2-1-A	-0.4 to 7	-	0.2 to 7	-	0.6 to 6	-	16	Single	Automatic	Phosphor Bronze
2	PSM-690-L2-1-M	-0.4 to 7	-	0.2 to 7	-	0.6 to 6	-	16	Single	Manual	
3	PSM-690-H3-1-A	6 to 30	-	9 to 30	-	3 to 8	-	32	Single	Automatic	
4	PSM-690-H3-1-M	6 to 30	-	9 to 30	-	3	-	32	Single	Manual	
5	PSM-690-L2H5-1-A	-0.4 to 7	8 to 30	0.2 to 6	12 to 30	0.6 to 6	4	16/32	Dual	Automatic	
6	PSM-690-L2H5-1-M	-0.4 to 7	8 to 70	0.2 to 6	12 to 30	0.6 to 6	4	16/32	Dual	Manual	

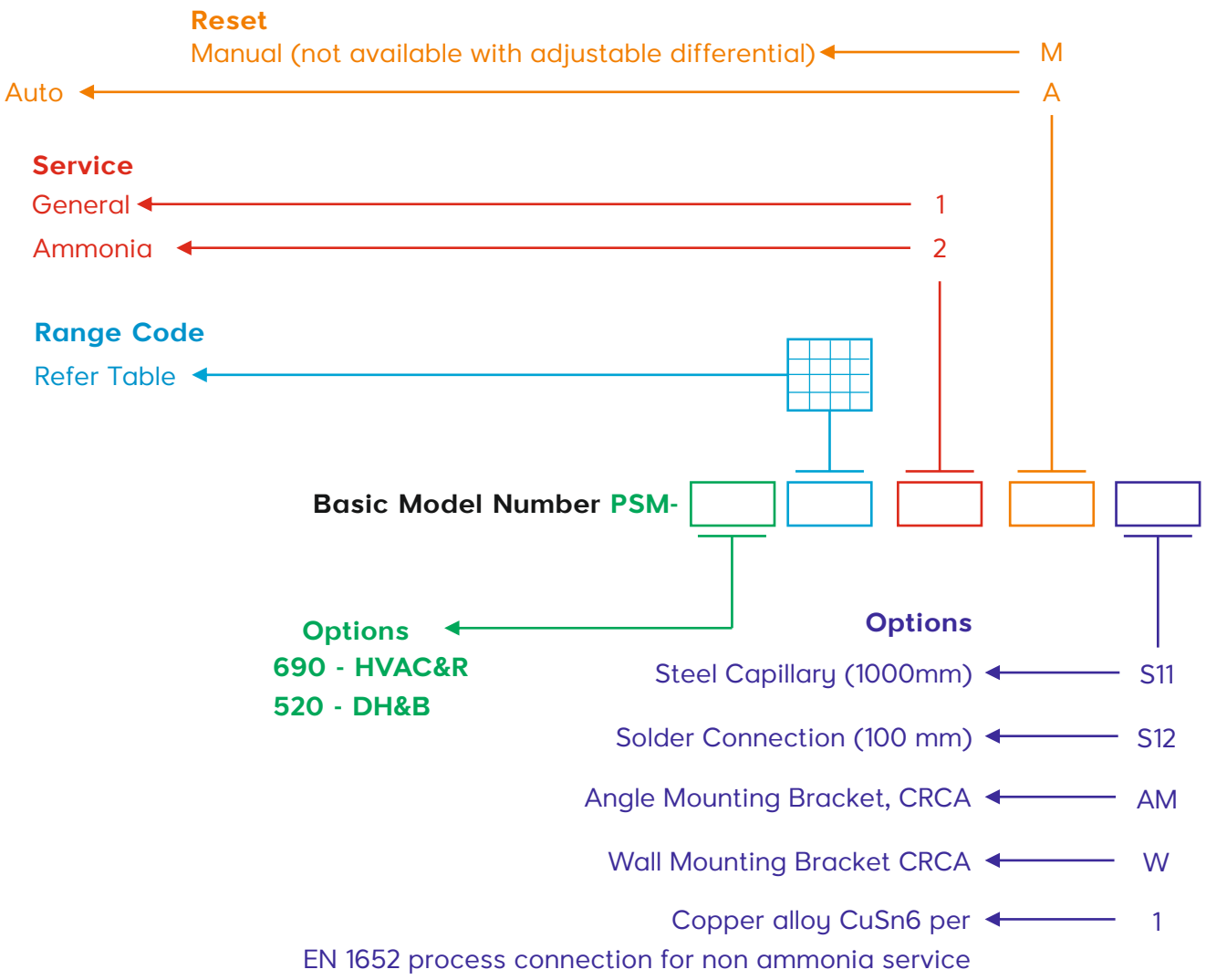
PRESSURE FACTORY PRESET

Sr No.	Item name	Factory Set Point (LP)		Factory Set Point (HP)		UOM
		Cut Off	Cut In	Cut Off	Cut In	
1	PSM-690-H3-1-A	-	-	18	15	Bar
2	PSM-690-H3-1-M	-	-	18	15	Bar
3	PSM-690-L2-1-A	3	2	-	-	Bar
4	PSM-690-L2H5-1-A	3	2	18	14	Bar
5	PSM-690-L2H5-1-M	3	2	18	14	Bar

MODELS AVAILABLE : DISTRICT HEATING AND BOILER APPLICATIONS

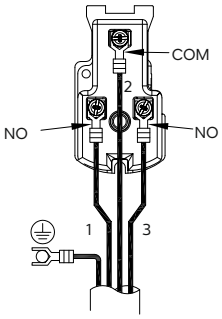
Sr No.	Model No.	Setting range (Bar)	Permissible switch point on rising pressure (Bar)	Adjustable switch differential (Bar)	Max. working pressure (Bar)
1	PSM-520-101	0 ... 7	0.6 ... 7	0.6 ... 6	16

Model Codification



Terminal Assignment

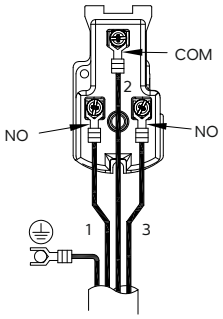
Ranges : L1, L2



1 NC	Normally Closed
2 COM	Common Contact
3 NO	Normally Open
GND	Ground Connection

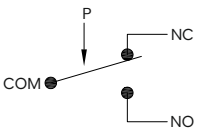
Falling Pressure

Ranges : H1, H2, H3

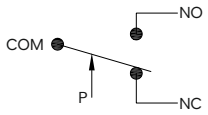


Rising Pressure

Ranges : L1, L2, L2H4[3] and L2H5[3]



Ranges : H1, H2, H3



NC	Normally Closed
COM	Common Contact
NO	Normally Open
P	Pressure

Falling Pressure **Rising Pressure**

1. Manual reset option is available only in the high pressure port
2. Single pole double throw
3. Low post, falling pressure and high port, rising pressure

Reset
- Auto
- Manual

Differential Single Pressure Port
- Fixed for manual reset
- Adjustable for auto reset

Dual Pressure Port
- Adjustable for low range
- Fixed for high range

Process Connection
- 1/4" flare with nut for general refrigerant
- M10×0.75 for ammonia

Non-repeatability of the Switch Point
≤ 2 % of span

Switch Contact
1 x change-over contact / SPDT 2)

Electrical Connection
Rubber grommet for cables Ø6 ... 14 mm (Ø0.24...0.55 in)

Ingress Protection per IEC/EN 60529
Ip30
The ingress protection is only valid if all mounting holes on the rear of the instrument are covered, or for panel mounting on flat surfaces.

Suitable for Refrigerants
R22, R134A, R404A, R407A, R407C, R407F, R422D, R438A, R507A.
For Corrosive Refrigerants such as R717 the bellow has to change from phosphorus bronze to 304SS

Specification

Electrical rating

Current Consumption[4)]	Voltage	Current
Resistive load AC-1	AC 230 V	10 A
Inductive load AC-15	Ac 230 V	6 A

Permissible Temperature Ranges

Ambient: -40°C to 70 °C (-40°F to 158 °F)
Medium: -20°C to 70 °C (-4°F to 158 °F)
Storage: -20°C to 80 °C (-4°F to 176 °F)

Reference Conditions

Relative Humidity per BS 6134

< 50 % r. h. at 40 °C (104 °F)
< 90 % r. h. at 20 °C (68 °F)

Process Connections

Current Consumption[4)]	Thread Size
IOS 228-1	1/4" flare with nut
	M10 x 0.75

Materials

Wetted parts :
Bellows: Copper alloy CuSn6 per EN 1652
Stainless steel, 1.4301 for ammonia service

Process Connection :

Free cutting steel EN1A per EN 10277-3, tin plated

Options :

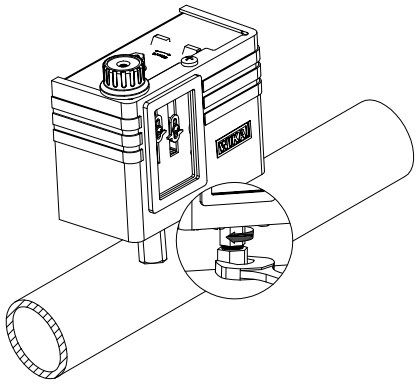
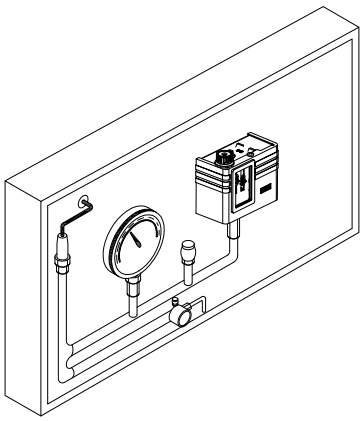
Steel capillary for ammonia service
Solder connection
Angle mounting bracket
Wall mounting bracket
Process connection copper alloy CuSn6 per EN 1652 non ammonia service

Certifications & Mounting

CERTIFICATIONS

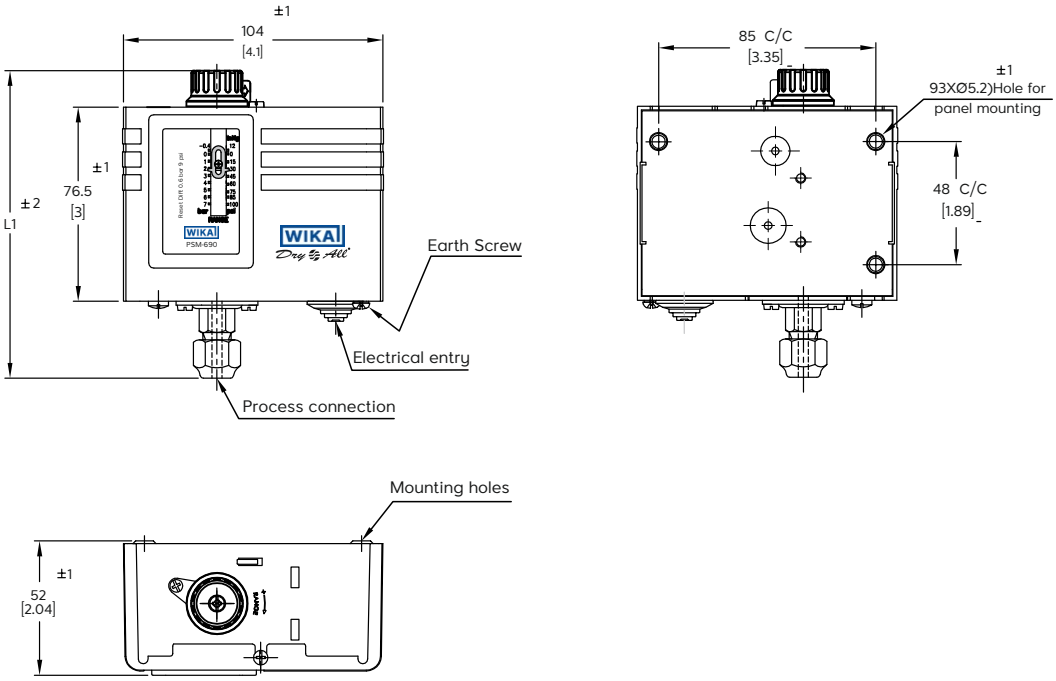
Logo	Description	Country
CE	**EU Declaration of conformity** •Low voltage directive •RoHS directive	European Union

MOUNTING

	
Direct Mounting	**Panel Mounting**

Dimensional Data

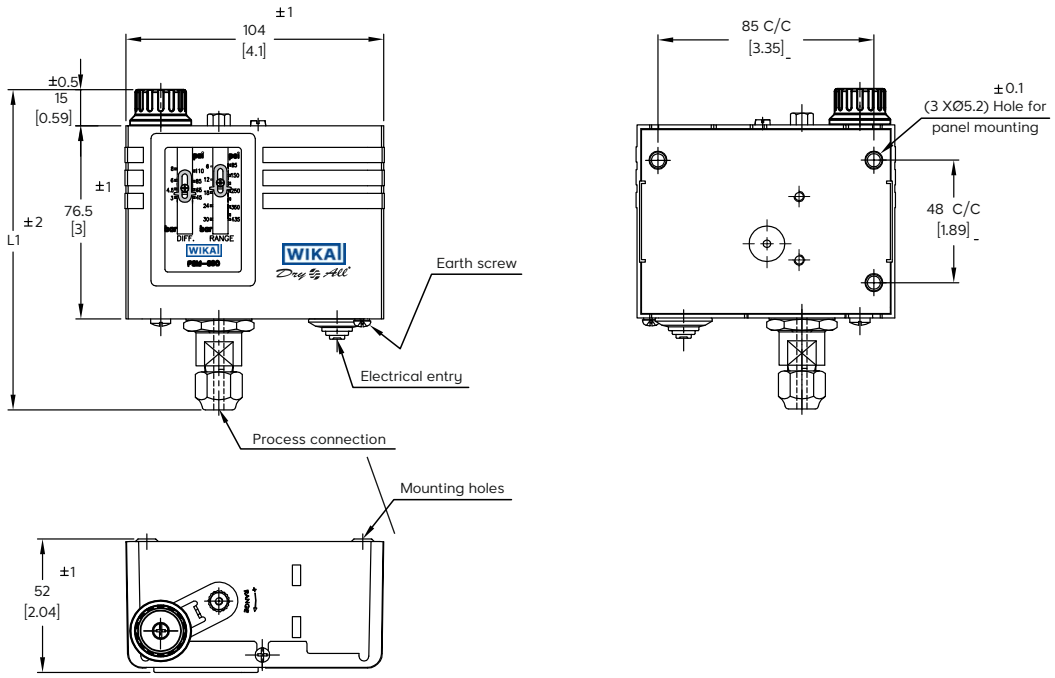
LOW PRESSURE WITH MANUAL RESET



Range			Dimensions in mm "L1"	Service	Reset
Range Code	in bar	in psi			
L1	-0.15 to 5	4 inHg to 72	119	General	Auto
	-0.15 to 5	4 inHg to 72	117	Ammonia	Auto
	-0.15 to 5	4 inHg to 72	119	General	Manual
	-0.15 to 5	4 inHg to 72	117	Ammonia	Manual
L2	-0.4 to 7	12 inHg to 100	119	General	Auto
	-0.4 to 7	12 inHg to 100	117	Ammonia	Auto
	-0.4 to 7	12 inHg to 100	119	General	Manual
	-0.4 to 7	12 inHg to 100	117	Ammonia	Manual

Dimensional Data

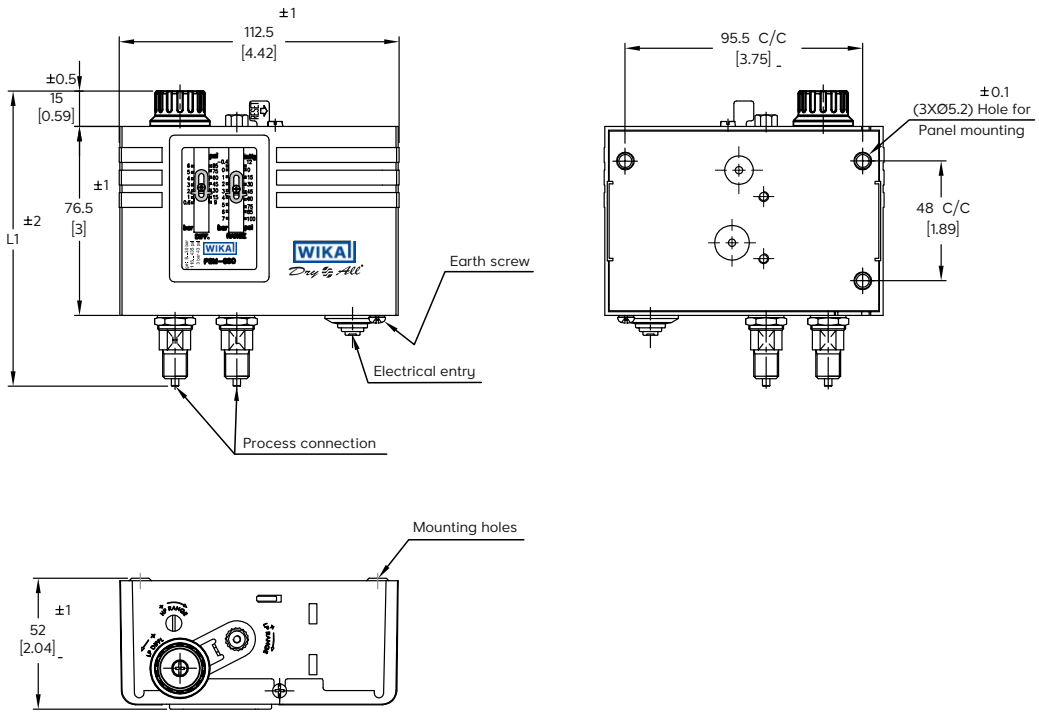
HIGH PRESSURE WITH AUTO RESET



Range			Dimensions in mm "L1"	Service	Reset
Range Code	in bar	in psi			
H1	6 to 15	87 to 217	125	General	Auto
H1	6 to 15	87 to 217	127	General	Manual
H2	6 to 22	87 to 319	121	Ammonia	Auto
H2	6 to 22	87 to 319	123	Ammonia	Manual
H3	6 to 30	87 to 435	125	General	Auto
H3	6 to 30	87 to 435	127	General	Manual

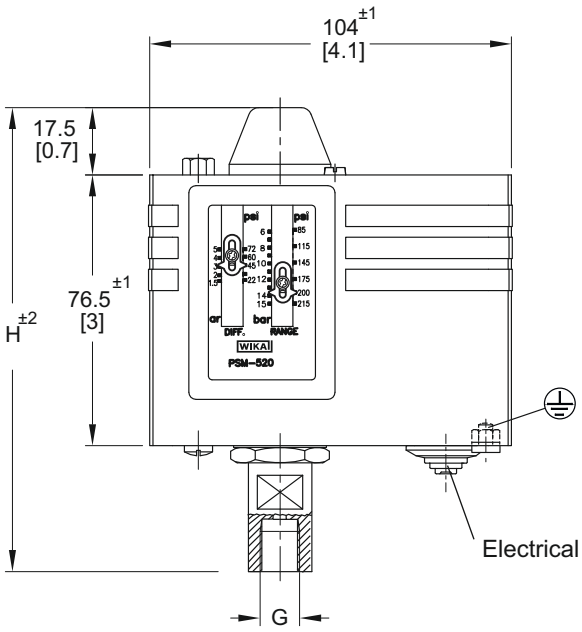
Dimensional Data

DUAL PRESSURE PORT WITH MANUAL RESET

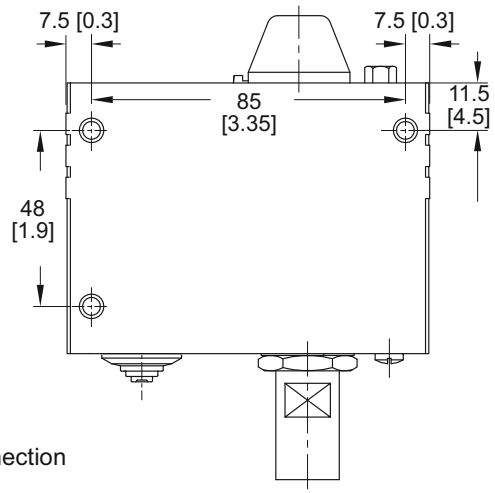


Range 1			Range 2		Dimensions in mm "L1"	Service	Reset
Range Code	in bar	in psi	in bar	in psi			
L2H4	-0.4 to 7	12 inHg to 100	8 to 22	116 to 319	118	Ammonia	Auto
L2H4	-0.4 to 7	12 inHg to 100	8 to 22	116 to 319	118	Ammonia	Manual
L2H5	-0.4 to 7	12 inHg to 100	8 to 30	116 to 435	122	General	Auto
L2H5	-0.4 to 7	12 inHg to 100	8 to 30	116 to 435	122	General	Manual

PSM-520 Series for District Heating and Boiler Applications

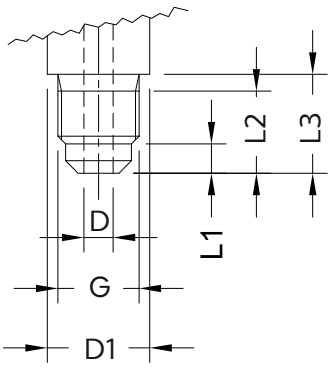
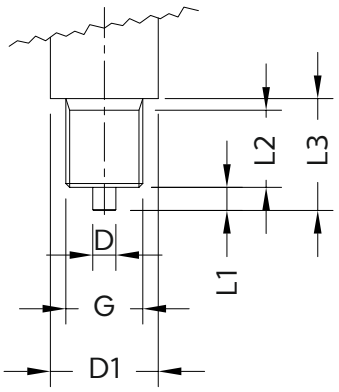


3 mounting holes ∅5.2 mm [0.2 in] on the rear of the instrument



Weight: approx. 530 g [18.7 oz]

Process Connections

1/4" flare per ISO 228-1	M10 x 0.75 with steel capillary tube (Optional)
	

Low Range (bar)	High Range (bar)	Dimensions in mm (in)					
		G	D	D1	L1	L2	L3
-0.15 to 5	–	1/4" flare	Ø 4	A/F 12	4.0	11.2	14 [4]
-0.4 to +7	–			AF/ 12			
–	6 to 15			A/F 14			
–	6 to 30			A/F 14			
-0.4 to +7	8 to 30			A/F 12 A/F 11			

Low Range (bar)	High Range (bar)	Dimensions in mm (in)					
		G	D	D1	L1	L2	L3
-0.15 to 5	—	M10 x 0.75	Ø3	AF/ 11	3	10	14.5
-0.4 to +7	—	M10 x 0.75	Ø3	A/F 11	3	10	14.5
–	6 to 22			A/F 14			
-0.4 to +7	8 to 22			A/F 12 A/F 11			

Ordering information
PSM-690 / Range code / Service / Reset

Check Hologram for Genuine Product

Marketed by:

Dry All
Full Range of HVAC&R Line Products

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