DATA SHEET

PD-Monitor® Description:

A wall mounted and factory tested differential pressure monitoring unit incorporating controller, 2 off pressure transducers, 240V AC mains cable and enhanced BMS capabilities.

Product Code:

BSS Code: 16923007

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Technical Specification -

Parameters:	Differential Pressure
IP Protection:	IP54
Mounting Position:	Internal Wall - Frost Free
Display:	Dot Matrix (Red)
Electrical Connections:	0.9M Flying Lead (Supplied) connected to isolator (by others)
Power Supply:	230V AC, 50Hz, 13.5mA
Fuse Rating:	3 AMP (Standard)
Dimensions:	200mm x 150mm x 85mm
Weight:	1.3KG
Ambient Operating Temperatures:	>5°C to 45°C, <90% RH
Pressure Sensor Cable:	Packard Plug + Cable (1.8m length)
Pressure Sensor Material:	ANSI 316L
Max Working Pressure (Sensors):	<30Bar
Differential Pressure Increments:	0.1Bar
Range of Pressure Differential:	0.1 to 7Bar
4-20mA Sensor Connections:	¼" BSP
Max Working Temperature (Sensor):	100°C
Min Working Temperature (Sensor):	-40°C
Medium:	Water / Liquids
CE / EMC Compatibility:	IEC 61010-1:2010 + A1:2019 and EN 61010-1:2010 + A1:2019
BMS Signal:	MODBUS RS485 (Address List on Page 4) & 5-Amp Common Alarm Relay Used to contact BMS System (Normally Open)
Max Glycol System Mix:	40%

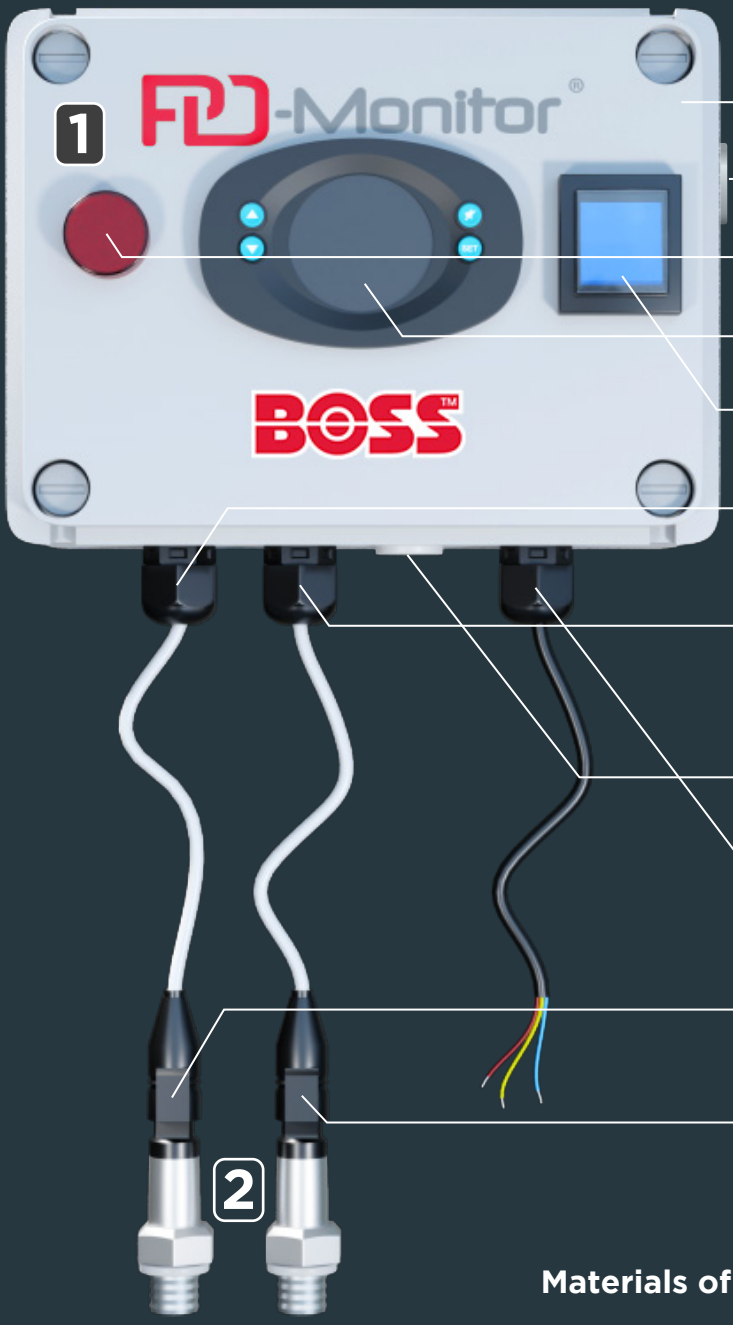
Applications -

The BOSS™ PD-Monitor is a flexible solution and ideally suited for commerical and industrial heating/cooling systems.

Blockages in plant equipment such as filters, strainers, plate heat exchangers and heater coils can have a detrimental effect on the system efficiency and building comfort.

BOSS™ PD-Monitor can be used to detect blockages and will alarm locally with audible buzzer and visual beacon and remotely via a BMS fault signal (relay / Modbus) when connected to a BMS system.

PD-MONITOR ILLUSTRATION



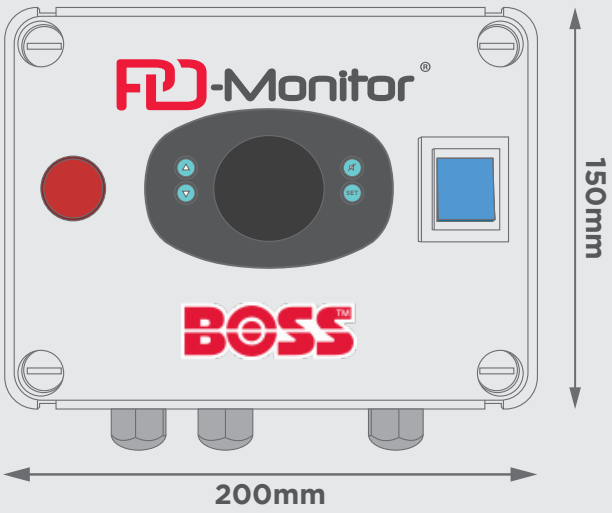
- Housing
- Blanking Cap for Pump Cabling
- Visual Beacon
- Controller
- Mains / On/Off switch
- Upstream Sensor Gland and Cable (1.8m)
- Downstream Sensor Gland and Cable (1.8m)
- BMS MODBUS RS485 (Address List on Page.5) & 5-amp Common Alarm Relay N/O (Gland inside Housing)
- Power Cable
- Upstream Pressure Sensor with Packard Plug
- Downstream Pressure Sensor with Packard Plug

Materials of Construction

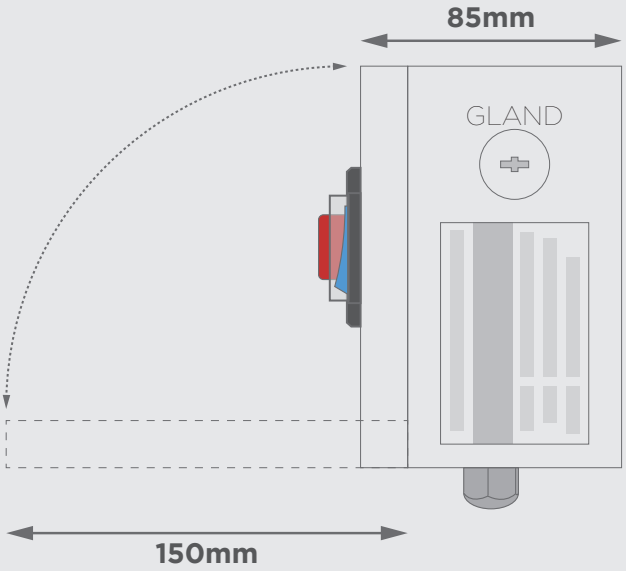
1. Housing: Techno Polymer GWPLAST 75
2. Pressure Sensor: ANSI 316L

Dimensions -

FRONT

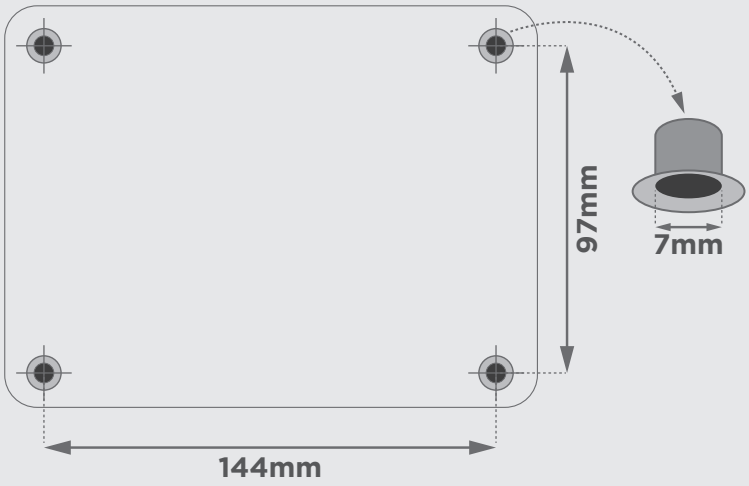


SIDE

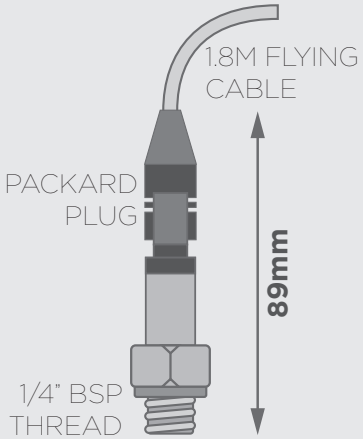


Leave at least 100mm free space in all directions to ensure sufficient access and 200mm from the front of the unit to enable unhindered opening of the front service panel.

BACK (Mounting Holes)



PRESSURE SENSOR



MODBUS Address List -

Preliminary Settings	
Baud Rate	9600
Word Length	8
Parity	NO
Stop Bits	1

Addresses							
X Variable Address	Denomination	Description	Format	Type	Data Conversion	Units	Variable Range
40001	Pressure Sensor 1	Value of Sensor 1	Word	Read		Decimal of Bar/PSI	
40002	Pressure Sensor 2	Value of Sensor 2	Word	Read		Decimal of Bar/PSI	
40003	Current	Value of the actual current through pump	Word	Read		mA	
40006	Pump Relay	Status of Pump Relay	Word	Read	0=OFF 1=ON		
40007	Filter Pump Alarm Relay	Status of Pump Alarm Relay	Word	Read	0=OFF 1=ON		
40008	General Alarm Relay	Status of General Alarm Relay	Word	Read	0=OFF 1=ON		
40009	Buzzer	Status of Buzzer	Word	Read	0=OFF 1=ON		
40013	Filter Blocked Alarm	Status of Filter Blocked Alarm	Word	Read	0=Alarm Not Present 1=Alarm Present		
40014	Pump Failure Alarm	Status of Pump Faulure Alarm	Word	Read	0=Alarm Not Present 1=Alarm Present		
40015	Sensor 1 Alarm	Status of Sensor 1 Alarm	Word	Read	0=Alarm Not Present 1=Alarm Present		
40016	Sensor 2 Alarm	Status of Sensor 2 Alarm	Word	Read	0=Alarm Not Present 1=Alarm Present		
40023	Par-Pressure Differential	Value of the parameter	Word	Read/ Write		Decimal of Bar/PSI	1 -> 70
40024	Par. Alarm Relay Contract	Value of the parameter	Word	Read/ Write	0=Normally Open 1=Normally Closed		0 -> 1
40025	Par. Minimum Pressure	Value of the parameter	Word	Read/ Write		Decimal of Bar/PSI	0 -> Par. Maximum Pressure
40026	Par. Maximum Pressure	Value of the parameter	Word	Read/ Write		Decimal of Bar/PSI	Par. Minimum Pressure -> 30
40027	Par. Current Sense	Value of the parameter	Word	Read/ Write	4=Not Active 5=Active		4 -> 5
40028	Par. Bar/PSI Unit	Value of the parameter	Word	Read/ Write	2=Bar 3=PSI		2 -> 3
40029	Par. Buzzer Enabled	Value of the parameter	Word	Read/ Write	4=Not Active 5=Active		4 -> 5
40030	Par. ID Number	Value of the parameter	Word	Read/ Write			0 -> 99
40031	Par. Pump Hours	Value of the parameter	Word	Read/ Write		Hours	0 -> 9999
40031	Par. Alarm Counter	Value of the parameter	Word	Read/ Write			0 -> 1000