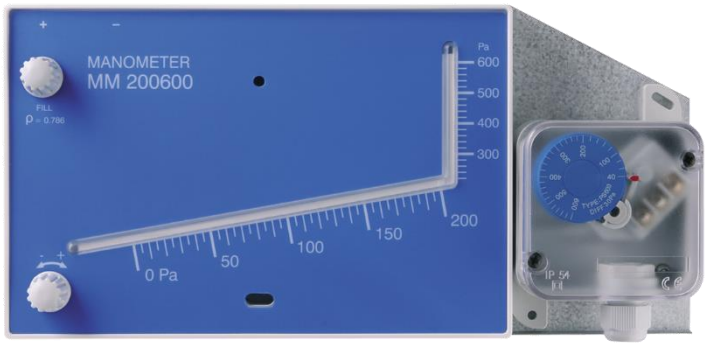
MM PS

Inclined-Tube-Manometer and Pressure Switch Combination

thermokon Sensortechnik GmbH

Datasheet

Subject to technical alteration
Issue date: 21.08.2008



Application

Differential pressure Inclined-Tube-Manometer for monitoring the differential pressure of air and other nonflammable and non-aggressive gases. Besides monitoring, the MM PS has an integrated differential pressure switch.

Possible applications: Monitoring of air filters, fans, industrial cooling air cycles as well as overheating protection, control of air and fire dampers, anti-freeze with heat exchangers.

Types Available

Type	Measuring range	Switch range
MM200600/PS600	0..600 Pa	40..600 Pa
MM5001500/PS1500	0..1500 Pa	100..1500 Pa

Security Advice – Caution

The installation and assembly of electrical equipment must be performed by a skilled electrician.

The modules must not be used in any relation with equipment that threatens, directly or indirectly, human health or life or with applications that can result in danger for people, animals or assets.

Before connecting devices with electrical power supply the installation must be isolated from the power source!

Notes on Disposal

The product is considered electrical and electronic waste and must be disposed accordingly.
Special treatment for specific components may be legally binding or ecologically sensible. The local and current applicable legislation must be followed.

Technical Data

Sub miniature switch:	with silver contacts for PS600/1500/4500 with gold contacts for PS200
Electrical ratings:	max. 3 A resistive (0,1 A for PS200, 5 A for PS4500) max. 2 A inductive; Max. 250 VAC
Switching differential:	PS600 30 Pa PS1500 80 Pa
Service life:	> 1,000,000 switching operations
Maximum pressure:	50 kPa
Admissible media:	Air and non-aggressive gases
Protection standard:	IP54
Electrical connections:	3 screws terminals
Cable entry:	M16
Pressure connections:	∅ 5 mm
Accuracy:	<± 2% F.S (20°C), DPG60 <± 4 % DPG100 <± 3 %
Weight:	870g

Operation temperature:	-20..+60°C max. 85%rH short term condensation
Storage temperature:	-40..+85°C
Gauge fluid:	red, s.g. 0,786 kg/dm³ (15 °C) blue, s.g. 1,870 kg/dm³ (15 °C)
Material (PS)	
Housing:	ABS
Cover:	PC
Membrane:	Silicone
Duct connectors:	ABS
Tubing:	PVC, soft
Material (MM)	
Housing:	ABS
Cover:	PMMA
Screws:	PC
Sealings:	NBR

Mounting Advices

The manometer should be screwed on a vertical surface. The device must be mounted balanced with the self-drilling screws herewith enclosed.

Turn back the zero button to the stop position. Then turn one rotation clockwise, so that the adjustment can be conducted in both directions. Screw-off the filling button and fill with gauge fluid until the fluid is visible close to the zero-point on the scale. Make an exact adjustment with the zero button and screw-on the filling button.

Establish a connection between the connector (-) of the measuring device with the flow-off side of the filter as well as the connector (+) of the measuring device with the flow-on side of the filter. To mark the start (green) and endpressure (red), bond the green and red adhesive label side by side upon the scale. Please note the recommendation of the equipment manufacturer regarding the recommended pressure loss values.

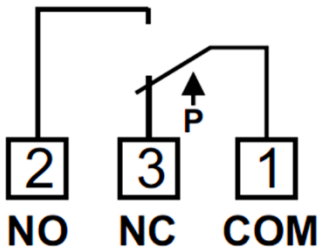
Check the oil level at regular intervals and readjust the zero button if necessary. Before the readjustment please make sure that the device is unpressurized. Therefore the tube must be at first pulled off on the upside of the device. Fill up with oil if necessary.

Commissioning

A prerequisite for the operation is a proper installation of all electrical supply, control and sensing leads as well as the pressurized connection line.

Before installing the device, the leak tightness of the pressurized connection lines has to be inspected.

Terminal Connection Plan

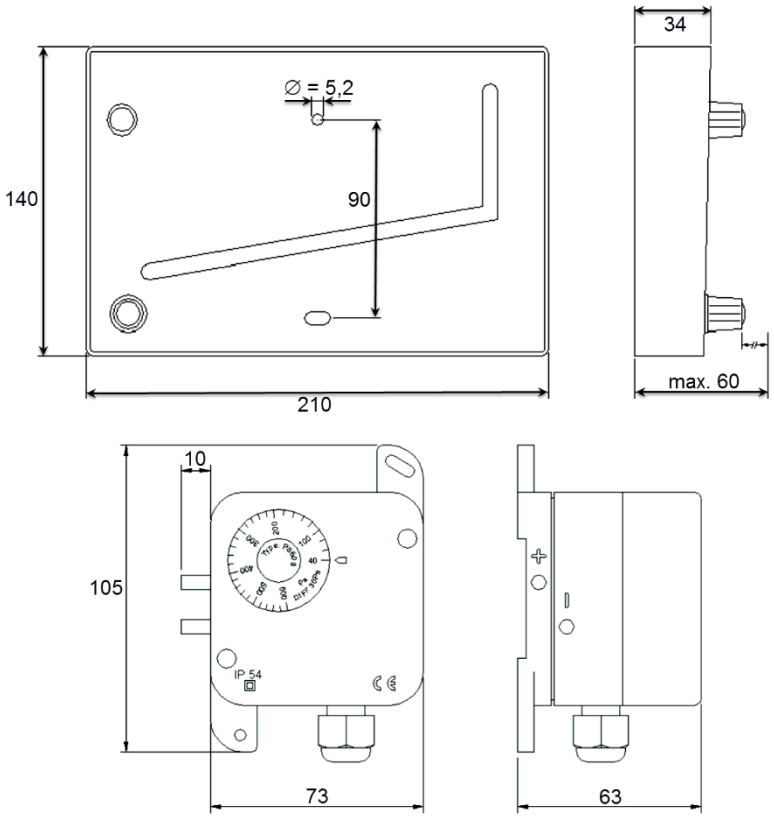


When differential pressure increases:

➔ 1-3 open

➔ 1-2 close

Dimensions (mm)



Standard Accessories

2 fixing screws
2 plastic duct connectors
2 meter PVC-tube soft, ∅ 4/7mm
Gauge fluid
Red / green stickers