

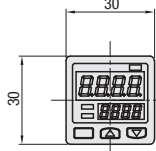
Digital Pressure Sensors / Pressure Switches

Digital Pressure Sensors

MDPSA
(Low Pressure Type)
MDPSB
(High Pressure Type)

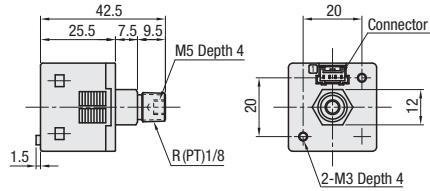
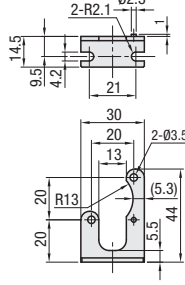


Sensor Body

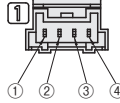


Sensor Bracket (Accessory)

* 2 mounting screws are attached.

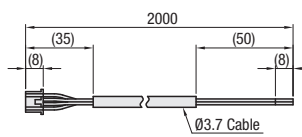


Connector-Terminal Arrangement Diagram



Terminal No.	Name
①	+V
②	Comparative Output 1
③	Comparative Output 2
④	0V

Cable with Connector (Accessory)



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Part Number	Type	Rated Pressure Range	Min. Voltage Resolution	Unit Price
MDPSA	Low Pressure Type	-100.0~+100.0kPa	0.1kPa	
MDPSB	High Pressure Type	-0.100~+1.000MPa	1kPa	

Features

- A compact type sensor with a size of 30x30mm.
- The current value and the threshold value are displayed on the sensor's dual screen panel, which allows to check or set both values smoothly without switching the display mode.
- The color of the main indication is displayed in 3 colors, which excels in operability and visibility.
- Response time can be set at 10 levels between 2.5ms and 5,000ms, which prevents chattering or malfunction due to rapid pressure change etc.

Precautions for Use

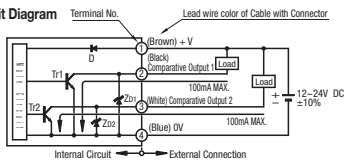


Do not use this product as the detector for the purpose of human body protection.

(For human body protection, please use those products that satisfy laws and standards of human body protection made by each country, such as OSHA, ANSI and IEC.)

- Don't subject the sensor to pressure that exceeds max. allowable pressure. Don't put wire etc. into the pressure port, which may damage diaphragm or result in incorrect operation.
- Avoid using in the transitional situation (0.5s) when the power supply is turned on.
- Avoid use where it is exposed to vapor or dust.
- Avoid direct contact with solvent such as thinner, water, oil or grease.

Input/Output Circuit Diagram



- D : Protection diode for reversed polarity power connection
 ZD1, ZD2 : Zener Diode for Surge Voltage Absorption
 Tr1, Tr2 : NPN Output Transistor

Specifications

Part Number	MDPSA	MDPSB
Type / Application	Low Pressure Type / (Mainly) Negative-pressure	High Pressure Type / (Mainly) Positive-pressure
Pressure Type	Gauge Pressure	
Pressure Resistance	500kPa	1.5MPa
Applicable Fluid	Noncorrosive Gas (not useable for liquid or corrosive gas)	
Power Supply Voltage	12 ~ 24V DC±10% Ripple P-P 10% or less	
Power Consumption	Normal Times: 840mW or less (Supply Voltage: 24V, consumption current: 35mA or less) NPN Transistor / Open Collector • Maximum Inflow Current: 100mA • Applied Voltage: 30V DC or less (Between comparative output and 0V) • Residual Voltage: 2V or less (Inflow current 100mA)	
Comparative Output	Select NO or NC by key operation 1 digit minimum (variable)	
Output Operation	±0.1%F.S (±2 digits or less) ±0.2%F.S (±2 digits or less)	
Repeatability	Select from (2.5, 5, 10, 25, 50, 100, 250, 500, 1,000, 5,000) ms	
Response Time	Provided	
Short Circuit Protection	Not Applicable	
External Input	Not Applicable	
Analog Voltage Output	Not Applicable	
Display	4 digits + 4 digits and 3 colors LCD display (display update cycle: select from 250, 500 and 1,000ms)	
Indicated Pressure Range	-100.0~+100.0kPa	-0.100~+1.000MPa
Indicator Light	Orange LED	
Protection Structure	IP40(IEC)	
Ambient Operating Temperature	-10~+50°C, for storage: -10~+60°C	
Ambient Operating Humidity	35 ~ 85% RH (However, no dewing and no freezing), for storage: 35 ~ 85% RH	
Withstand Voltage	1,000VAC 1 minute Between Charged parts and Case	
Insulation Resistance	50MΩ or more with 500VDC mega Between Recharger and Case	
Vibration Resistance	Endurance 10 ~ 500Hz Double Amplitude of 3mm 2 Hours, in X, Y, Z Directions Each	
Impact Resistance	Endurance 100m/s ² (Approx. 10G) 3 times for XYZ direction each within ±0.5% F.S. within ±1% F.S.	
Temperature Properties	within ±0.5% F.S. within ±1% F.S.	
Pressure Port	M5 Tapped + R (PT) 1/8 Threaded	
Connection Method	Connector	
Wire Length	100m long cable with sectional area of 0.3 square millimeter or more Case: PBT, LCD Display: Acrylic, Switch: Silicon Rubber Pressure Port: SUS303 Screw: Brass (Nickel Plating) Mounting Metal: SPCC (Trivalent Bright Chromate)	
Material		
Body Mass	Approx. 40g	

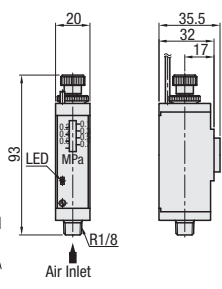
* The ambient operating temperature is +20°C for the measurement conditions without any specification.

Pressure Switch

MPSS

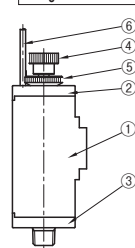


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JIS Symbol

Configuration of Parts



Component List

No.	Name	Quantity	Material
①	Main Body	1	ZDC2
②	Head Cover	1	ZDC2
③	Joint	1	ZDC2
④	Handle	1	A2017
⑤	Lock Nut	1	A2017
⑥	Lead Wire	1m	Vinyl

Part Number	Type	No.	Unit Price
MPSS		6A	

Features

- A contact type pressure switch with a built-in lead switch.
- Operating Pressure can be easily set by handle rotating operation. LED display allows easy checking of ON/OFF operation.



Applicable Fluid	Air
Set Pressure (Mpa)	0.1~0.7
Max. Operating Pressure (Mpa)	0.8
Pressure Resistance (Mpa)	1.0
Operating Temp. Range (°C)	5~60
Pipe Connection Bore Dia.	R1/8
Sensor Switches	Lead Switches (Contact Type) Normally Open / LED Lights when ON Lead Wire Length 1m
Mass	Contact Capacity : 85 ~ 115VAC / 5 ~ 30VDC, 25mA or less 185g

