

Mechanical Pressure Switch

MPSE

CERTIFICATIONS



DESCRIPTION

The economical mechanical pressure switch MPSE uses a diaphragm or piston sensing element, depending on pressure adjustment range. Diaphragm sensing element is used in low-pressure adjustment range up to 100 bar, while piston sensing element is used in high-pressure adjustment range up to 400 bar. 1 SPDT (1 NC + 1NO), 1 NC or 1 NO switching outputs are selectable.

Set points can be easily adjusted with an adjustable screw. Factory preset set of switching points is optionally available.

The MPSE switch is suitable for non-aggressive liquids, compressed air or self-lubricating fluids. Material selection for the housing and the process connection: brass, nickel-plated steel, stainless steel 304 and stainless steel 316L. The switch can be installed in any desired mounting position.

The MPSE is used to monitor and control pressure of media in diverse applications. The integrated micro switch allows switching performance up to 5 A. Contacts are silver plated, and gold-plated contacts are available on request.

The compact design with flat connectors is designed for use in limited space. The pressure switch MPSE complies with electromagnetic compatibility requirements (EMC) as per EN 61326.



ADJUSTMENT RANGES

- Diaphragm:
 - 0.2...2.5 bar
 - 1...12 bar
 - 5...50 bar
 - 10...100 bar
- Piston:
 - 1...12 bar
 - 5...50 bar
 - 10...100 bar
 - 20...300 bar
 - 50...400 bar

FEATURES

- Compact design
- Economical product
- Easy and flexible installation
- CE, RoHS confirm

APPLICATIONS

- Mechanical engineering
- Hydraulics and Pneumatics
- Industrial and Automotive
- Customized Automation

SPECIFICATIONS

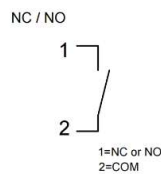
Model	MPSE	
Pressure Type	Gauge Pressure	
Measuring principle	Spring loaded diaphragm	Spring loaded piston
Adjustment Range / Overpressure Limit	Diaphragm: 0.2...2.5 bar / 25 bar 1...12 bar / 150 bar 5...50 bar / 150 bar 10...100 bar / 150 bar	Piston: 1...12 bar / 300 bar 5...50 bar / 300 bar 10...100 bar / 400 bar 20...300 bar / 400 bar 50...400 bar / 600 bar
Hysteresis	Diaphragm: Approx. 10% of FS	Piston: Approx. 15% of FS
Materials	Diaphragm	Piston
Measuring element:		
Standard	NBR	Nickel-plated steel
Option	EPDM, FKM, HNBR, FVMQ	Others on request
Thread:		
Standard	Nickel-plated steel	
Option	Brass, Stainless steel 304, Stainless steel 316L, Others on request	
Housing		
Standard	Nickel-plated steel	
Option	Brass, Stainless steel 304, Stainless steel 316L, Others on request	
Pressure Connection		
Standard	G 1/4, G 1/8, NPT 1/4, NPT 1/8, NPT 3/8, R 1/4, R 1/8, R 3/8	
Option	Others on request	
Electrical Connection		
Standard	Flat connector 2/3 x 6.3 x 0.8 (IP 00), Cable outlet (IP 67), Screw Connector (IP00)	
Option	M12x1 Connector (IP67), Deutsch Connector (IP65)	
Switching outputs		
Number	1	
Switching Function	SPDT (1 NC + 1 NO), NC, NO	
Contacts 2 x 6.3 x 0.8		
Standard	Silver Plated Contacts	
Option	Gold Plated Contacts	
Adjustment		
Standard	On-site, with Adjustable Screw	
Option	Factory pre-set	
Switching Accuracy	5% of FS	
Power Rating		
DC up to 42V	Max. 4 A	
AC up to 250 V	Max. 4 A	
Load Cycles	≤ 90 cycles/min	
Life Cycles	1 Million Cycles	

FS = Full Scale

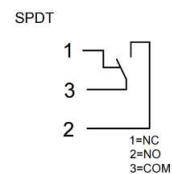
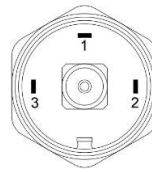
Permissible Temperatures Standard Option	Low Temperature NBR: EPDM: FKM: FVMQ: HNBR:	-40...+100 °C -50...+150 °C -26...+200 °C -60...+200 °C -40...+150 °C
Storage Temperature	-20...80° C	
Conformity Pressure Equipment Directive EMC Directive Shock Resistance Vibration Resistance	CE, RoHS 97/23/EC 2004/108/EEC, EN 61326 Emission (Group 1, Class B) 30 g acc. DIN EN 60068-2-2 10 g acc. DIN EN 60068-2-8	
Weight	Approx. 0.10kg	

ELECTRICAL CONNECTION

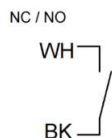
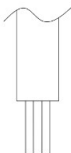
Flat Connector 2x 6.3 x 0.8mm
Screw Connector



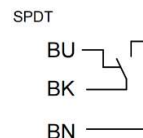
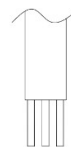
Flat Connector 3x 6.3 x 0.8mm
Screw Connector



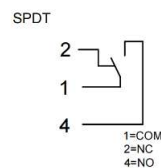
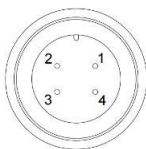
Cable Outlet 2-wire



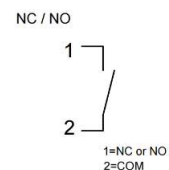
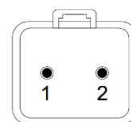
Cable Outlet 3-wire



M12x1 Connector
DIN EN 61076-2-101-A



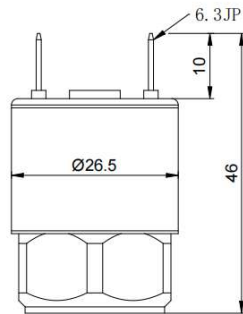
Deutsch Connector
TE04-2P



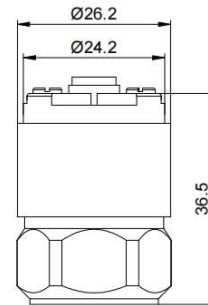
DIMENSIONS (mm)

CASE

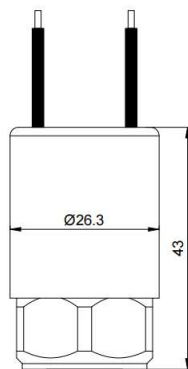
Flat Connector 2x / 3x 6.3x0.8



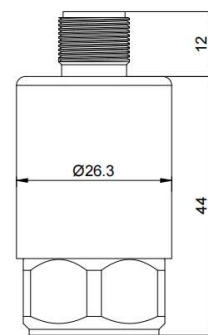
Screw Connector



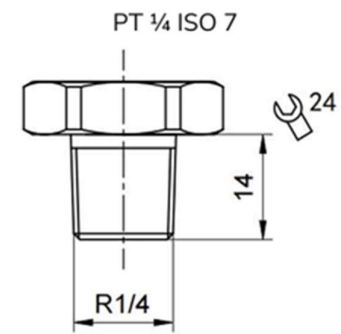
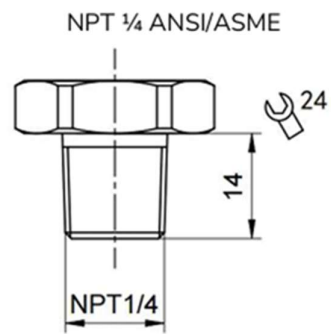
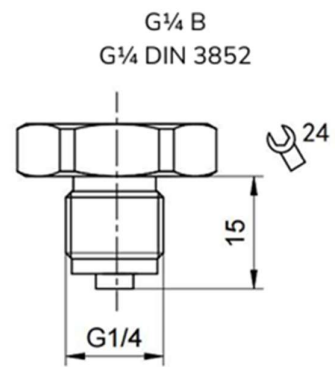
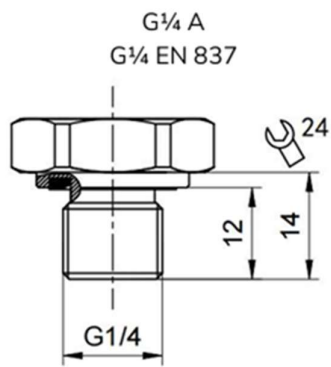
Cable outlet 2-wire / 3-wire



M12x1 Connector



PRESSURE CONNECTIONS



ORDERING CODE MPSE

MPSE-A-BBBBB-C-D-EEE-FF-G-HHH

A	Output	
	1	SPDT (1 NC + 1 NO)
	2	NO (Normally Open)
	3	NC (Normally Closed)

BBBBB	Adjustment Range (bar)			
	B2P5D	0.2...2.5 (Diaphragm)	B050P	5...50 (Piston)
	B012D	1...12 (Diaphragm)	B100P	10...100 (Piston)
	B050D	5...50 (Diaphragm)	B300P	20...300 (Piston)
	B100D	10...100 (Diaphragm)	B400P	50...400 (Piston)
	B012P	1...12 (Piston)	Others on request	

C	Contact	
	1	Silver plated (기본형)
	2	Gold plated

D	Housing & Thread Material	
	1	Nickel-plated steel
	2	Brass
	3	Stainless steel 304
	4	Stainless steel 316L
Others on request		

EEE	Pressure Connection			
	G4A	G1/4A	G8A	G1/8A
	G4B	G1/4B	G8B	G1/8B
	NP4	NPT1/4	NP8	NPT1/8
	PT4	PT1/4	PT8	PT1/8
	Others on request			

FF	Electrical Outlet	
	F2	2 Flat connectors (기본형)
	F3	3 Flat connectors
	M1	M12x1, 4-pin
	C2	Cable version 2-wire
	C3	Cable version 3-wire
	DE	Deutsch connector
	Others on request	

G	Seal	
	1	NBR (기본형)
	2	EPDM
	3	FKM
	4	HNBR
	5	FVMQ
Others on request		

HHH	Customized	
	111	Standard version
	XXX	Customer specific

Modifications reserved

6.2026