

MPES AutoZero Melt Pressure Sensor
FEATURES


- Several amplified signal output are optional
- Remotely autozero
- Good stability and anti-interference ability
- Internal 80% self-calibration


OVERVIEW

MPES series adopt imported stainless steel materials, core elements and digital mode circuit design. Realizing sensor linear compensation through digital program. Remote autozero via shorting two pins together. Comply with SIL2, CE safety performance standards. High precision, high stability, low temperature drift and other performance characteristics.

MPES series is suitable for high-precision extrusion polymerization process control for sheets, composites, films, pipes, chemical raw materials, etc.

SPECIFICATION

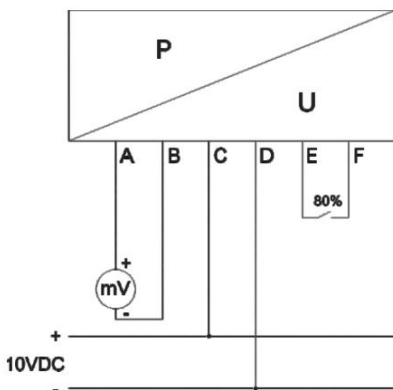
Pressure Range	0~35bar;0~2000bar		0~100bar;0~2000bar
Accuracy	±0.5%、±0.25%		
Over load Pressure	1.5FSO		
Bridge Resistance	350ΩWheatstone bridge		
Power	12 ~ 36Vdc (Standard24Vdc)		10Vdc
Output Signal	4 ~ 20mA	0 ~ 10Vdc 0 ~ 5 Vdc	3.33mV/V
Load Resistance (Ω)	< (U-12) /0.02	> 10K	
Calibration	80%FSO		
Process Connection	M14×1.5、 1/2-20UNF、 M18×1.5		
Insulation Resistance (50Vdc)	1000MΩ		
Diaphragm Material	17-4PH、 inconel718、 C276		
Diaphragm max temp	400C°		
Film Material	TiAlN		
E-connection	6-pin connector(Standard),8-pin connector		
Electrical Environment temp	-20C° ~ 85C°		
Thermocouple	J Type,E Type,K Type,pt100		
Protection degree	IP65		
Installation torque	< 30Nm		
Filling Material	Mercury filling		

ELECTRICAL CONNECTION

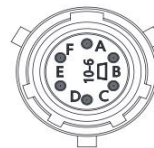
After the pressure sensor has been installed on the pipeline, the electrical connection must be made in accordance with the connection method shown in the wiring diagram below.

The MPES pressure sensor is equipped with an integrated amplifier circuit. The calibration process must be carried out when the pipeline is heated and the pressure is zero. The zero point is adjusted by activating the autozero function, which is started via shorting two pins together. Start by connecting (see wiring), mV signal does not have this function temporarily, it can be reset to zero through the back-end instrument. Then 80% of the output signal is detected (see wiring diagram), and the pressure sensor will provide a standard 80% measured value signal.

3.33mV/V Output (4-wire)

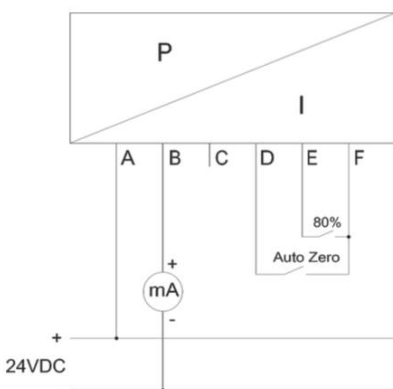


6-pin connector / PT02A-10-6P

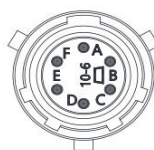


PIN	Function	Wire Color
A	Signal +	Red
B	Signal -	Black
C	Power +	White
D	Power -	Green
E	80% +	Blue
F	80% -	Orange

4...20mA Output (2-wire)

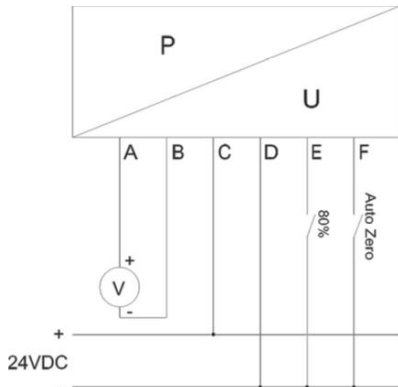


6-pin connector / PT02A-10-6P

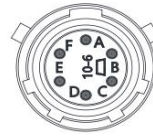


PIN	Function	Wire Color
A	Power +	Red
B	Power -	Black
C		White
D	Shorting D&F to rezero +	Green
E	80% +	Blue
F	Shorting D&F to rezero - /80% -	Orange

0...5V / 0...10V (4-wire)



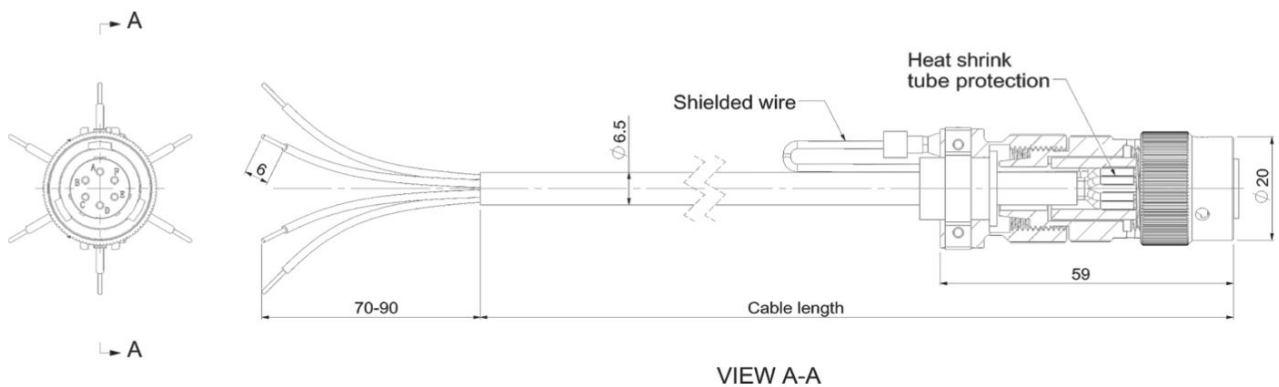
6-pin connector / PT02A-10-6P.



PIN	Function	Wire Color
A	Signal +	Red
B	Signal -	Black
C	Power +	White
D	Power - /80% - /Shorting D&F to rezero -	Green
E	80% +	Blue
F	Shorting D&F to rezero +	Orange

* B and D pins are connected internally

It must be a shielded cable, each core wire is about 0.3mm², the heat-resistant temperature is not less than 105°C, each core wire connection terminal should be insulated and protected by heat shrinkable tube, the shielding wire should be connected with the plug-in metal, and the cable should be specially welded carefully, otherwise it may cause signal transmission errors or damage the product. It is recommended to use a dedicated cable that has been soldered by SenTec. For extra wires in the cable, each wire needs to be individually wrapped with insulating tape.



ORDER CODE

MPES	-	-	-	-	-	-	-	-	Parameters
Range	X M								1M=1000psi=70bar 1.5M=1500psi=100bar 3M=3000psi=200bar 5M=5000psi=350bar 7.5M=7500psi=500bar 10M=10000psi=700bar 15M=15000psi=1000bar 20M=20000psi=1400bar 30M=30000psi=2000bar
Accuracy	M								± 0.5% FSO
	H								± 0.25% FSO
Signal output		1MV							1MV=1.5mV/V
		2MV							2MV=2mV/V
		3MV							3MV=3.33mV/V
		MA							MA=4~20mA
		5V							5V=0~5V
		10V							10V=0~10V
Rigid stem length			3						3"=76mm
			6						6"=152mm
			9						9"=230mm
			12						12"=305mm
Flexible stem length			0						No Flex
			18						18"=460mm
			30						30"=762mm
Process connection				1/2					1/2-20UNF
				M14					M14*1.5
				M18					M18*1.5
Electrical connection					6				6 PIN
					8				8PIN
Temperature sensor						TC			E, J, K thermocouple with 3" Flex
						RTD			Pt100 with 3" Flex

SPARE PARTS



Rupture disk



Drilling kits



Cleaning kits



Mini deadweight tester