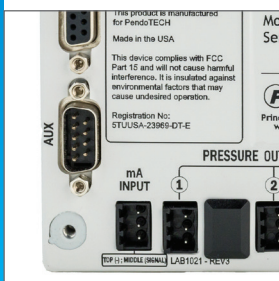


Versatile Biopharmaceutical Process Monitor



Advanced Monitoring System

In addition to pressure, the PMAT Plus integrates with flow meters and other analog devices, providing a comprehensive data monitoring solution.



4-20mA Analog Input

The 4-20mA input function is user configurable and can be used to read and display measurements from an external transmitter.



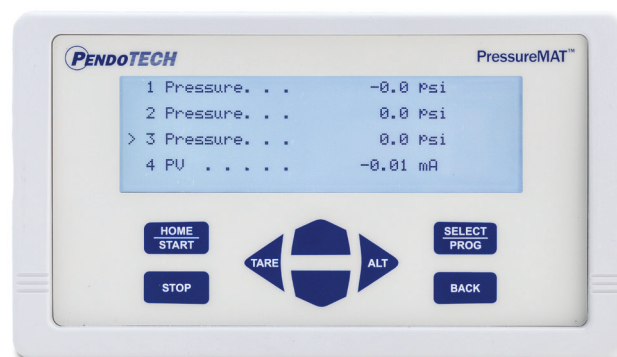
Flow Rate Measurement

Equipped with a digital pulse accumulator, the PressureMAT Plus converts pulses per second from the flow meter into flow rate or total flow volume.



Real-Time Data Transfer and Monitoring

The RS-232 data output allows for data transfer to a PC, facilitating real-time data collection with the PMAT Data Acquisition Software (PMATP-GUI).



Enhance Biopharmaceutical Production With the Advanced Pendotech PressureMAT Plus Sensor Monitor

The METTLER TOLEDO Pendotech PressureMAT (PMAT) Plus Sensor Monitor is a multifunctional device for biopharmaceutical production, suitable for filtration and chromatography. It monitors, alarms, and transmits data from Pendotech Single-Use Pressure Sensors, flow meters, and other analog devices. It features an intuitive display and easy-to-use back panel connectors. Models with flow meter inputs have an accurate digital pulse accumulator that converts flow meter pulses into flow rate using a user-defined pulse constant (pulses/mL) and can also calculate total flow volume. Models equipped with analog inputs can connect to various devices that output 4-20 mA, including those that measure temperature, UV, pH, and turbidity.

The PMAT is equipped with an IP66/NEMA4X front panel, which guarantees a high level of durability and reliability by providing robust protection against dust, water, and other environmental factors.

Moreover, the system is compliant with all necessary industry standards and regulatory requirements. This can streamline the process of integrating the system into various applications, ensuring safety, reliability, and compliance with legal and industry-specific regulations.

Specifications	
Enclosure (WxHxD):	7.86inch x 4.47 inch x 2.25 inch (19.96 x 11.35 x 5.72 cm) Approximate weight: 1.3 lbs (0.65 kg), Material: ABS Plastic IP66 / NEMA 4X front panel; panel and wall mount optional
Keypad	8 button keypad with LEXAN® overlay
Display	8 line LCD backlit blue, pressure displayed as X.X psi/X.XX bar; flow and external transmitter with 2 fixed decimals
Power Inlet	2.5 mm Circular Power Jack (center post positive) or D9 12-24 volts DC, 4 watts (powered by wall supply)
Pressure Sensors Input (s) Models offered with 1-3 inputs	Range of -11.5 to 75.0 psi; (-0.793 bar to 5.171 bar) PMAT2HR & PMAT-SHR -0.7 to 7.5 psi (-0.0483 bar to 0.510 bar) Configured for Pendotech Single Use Pressure Sensors™, Connector: DA15 (includes 12 ft reusable cables)
Flow Sensor Input	5V Pulse/Frequency input with programmable pulse constant, Connector: Screw Terminal
Relay Outputs(s) [Up to 4 outputs available as a combination of Relay and Analog outputs]	Specifications for relay used for the alarm output: <ul style="list-style-type: none"> • Normally CLOSED or OPEN via wiring • 28 Volt AC/DC Maximum • 1 amp closure, 2 amps maximum current • 20 millisec max turn on/off time • Screw terminal connector
Analog Output(s) [4-20 mA] [up to 4 outputs available as a combination of Relay and Analog outputs]	Screw terminal connector 4-20mA Range: -10 to 75 psi (-0.689bar to 5.171 bar); Accuracy: 0.1% of full scale Sourcing with Maximum Load: 400 ohms Load Impedance: Zero Ohm minimum resistance, 22mA maximum output
Analog Inputs	Screw terminal connector 4-20mA range +/- 0.01% of full scale; 100 ohms
RS232 Output	Data output to a PC at a frequency up to approx every 2 seconds Optional Internal Data Logger: Part# PDKTP-DLOG
Regulatory Compliances	CE Mark EN61326-1:2021; EN61010-1:2010/A1:2016/C2019; EN/ISO13849-1:2015; EN60204:2018 FCC Part 15 Class B verified FCC Part 68 5TUUSA-23969-DT-E RoHS and REACH Compliant UL Listed
Accessories for Ingress Ratings	
NEMA4X/IP66 (Front panel only)	Every PMAT model has a NEMA4X/IP66 rated front panel
NEMA4X/IP66 (When panel mounted)	Every PMAT model is NEMA4X/IP66 rated when panel-mounted with panel mounting kit (PMAT-PANEL) and additional silicone sealant (PDKT-SIL-SEAL1)
UL Type 4X	Every PMAT model is rated UL type 4X when mounted with a specific window kit accessory (PMAT-ULT4X-W1)

Monitor - The system's LCD screen displays process values such as pressures, flow rate (or total flow), and analog inputs. Pressure sensors can be zeroed to atmospheric pressure, while the flow meter total can be reset via the flow meter menu. For 4-20 mA inputs, users can input the minimum and maximum values and units of measure from the corresponding external transmitter. These remote transmitter values are shown on the PMAT and can also be logged to a PC along with other system data.

Alarm - Users can input minimum and maximum thresholds using the keypad. If the process value dips below the minimum or surpasses the maximum, the system will activate an alarm state.

Transmitter - The transmitter function outputs a 4-20 milliamp signal that aligns with the process values shown on the display. Additionally, an RS-232 data output is available for transferring data to a PC, enabling data collection using the PMAT Data Acquisition Software (PMATP-GUI).

Ordering Information

Number of Inputs	Number of Outputs	Model Nr.
2 pressure sensor inputs plus 1 flow meter input plus 4-20mA input	4 Analog Outputs	PMAT2P
2 pressure sensor inputs plus 2 4-20mA inputs	4 Analog Outputs	PMAT2A
2 pressure sensor inputs plus 2 flow meter inputs	4 Analog Outputs	PMAT2F
3 pressure sensor inputs plus 1 flow meter input	4 Analog Outputs	PMAT3P
3 pressure sensor inputs plus 1 4-20mA input	4 Analog Outputs	PMAT3A
4 4-20mA Inputs	---	PMAT-DAQ
4 4-20mA Inputs	4 Analog Outputs	PMAT-DAQ-A

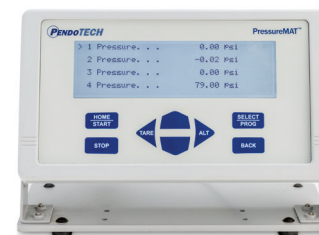
Software	Order Nr.
Data Acquisition and Trending Software for PressureMAT and CMONT with 2 USB/serial cables to connect to a PC	PMATP-GUI
PressureMAT Internal Data Logger (not available with PMAT-S)	PDKTP-DLOG

Stands/Cart	Order Nr.
PressureMAT Benchtop Stand for all models	PMAT-STND
PressureMAT stand to mount on top of Masterflex L/S Pump	PMAT-STND-MFLS
PressureMAT stand to mount on top of Watson Marlow 500 Series (green) Pump	PMAT-STND-WM5
PressureMAT water-tight box (PMAT NOT included) with water-tight cable connections and cart with power strip & filter holder with optional touch-screen PC with Data Acq Software	PMAT-CART4

Water Tight Enclosure	Order Nr.
PressureMAT water-tight wall mount box with water-tight cable connections	PMAT-WALL
PressureMAT water-tight bench top stainless steel box with water-tight cable connections for PMAT on left side	PMAT-BNCH-IP-L
PressureMAT water-tight wall mount box with water-tight cable connections - holds 2 PressureMATs	PMAT-WALL2
PressureMAT-S single channel water-tight wall mount box with water-tight cable connections for PMAT	PMAT-WALL-S
PressureMAT, CMONT with UV Optional water-tight bench top stainless steel box with water-tight cable connections on left side	PMAT-BNCH-COMBO
PressureMAT UL Type 4X Deep-Hinged window kit with a viewing area of 8 inch X 9 inch (UL®)	PMAT-ULT4X-W1
PressureMAT Silicone Sealant cartridge, clear, 10.1oz for panel mount installation	PDKT-SIL-SEAL1

Cables	Order Nr.
RS232 Cable for PressureMAT data output (6 ft / 2 M) for USB input to PC	PDKTP-RS232U
Cable adaptor with D15 for Single Use Pressure Sensor for PMAT (12 ft/4 M)	PMAT-650-298
Cable Adapter with D15 for Single Use Pressure Sensor for PressureMAT (24 ft/7 M)	PMAT-650-298-24F
Pressure Sensor Extension Cable (12 ft/4 M)	PMAT-EXT-12F
RS232 Serial to USB adapter, for PMAT Wall/ Benchtop box, 7 ft	PMAT-WALL-RS232USB
PMAT Enclosure Box replacement power supply, 12VDC w/ global plug blades	PMAT-PWR-WALL-24VDC

Pump Starts/Stop Cables	Order Nr.
Interface cable for Masterflex LS pump- D9 connector to PMAT to start/stop function, 6 ft (2 M)	PMAT-CB-MF9B
Interface cable for Masterflex LS pump- D15 connector to PMAT to start/stop function, 6 ft (2 M)	PMAT-CB-MF15



Ordering Information - continued

Pump Starts/Stop Cables - continued	Order Nr.
Interface cable for Masterflex IP pump- 18 pin connector to PMAT to start/stop function, 6 ft (2 M)	PMAT-CB-MF18
Interface cable for Masterflex LS pump- D25 connector to PMAT to start/stop function, 6 ft (2 M)	PMAT-CB-MF25
Interface cable for Masterflex IP pump- 31 pin connector to PMAT to start/stop function, 6 ft (2 M)	PMAT-CB-MF31
Interface cable for Watson Marlow 120U/DV pump- D15 connector to PMAT to start/stop function, 6 ft (2 M). (Also works on the 101 model)	PMAT-CB-WM15
Interface Cable for Watson Marlow pump D25 connector to PMAT to start/stop function, 6 ft (2 M)	PMAT-CB-WM25
Interface cable for QuattroFlow Q1200HT to PMAT start/stop function, 6 ft (2 M)	PMAT-CB-Q1200HT
Accessories:	Order Nr.
Pressure Checker pressure sensor and monitor verification tool, psi	PDKT-650-950
Pressure Checker pressure sensor and monitor verification tool, millibar	PDKT-650-950B
Test cable assembly for PressureMAT accuracy check	PMAT-TCA
Pressure sensor cable dust cover / zero simulator for PressureMAT	PDKT-650-298CVR
DIN rail mounting kit for PMAT-S	PMAT-S-DIN
Installation qualification/operation qualification protocol documentation	PMAT-IQ/OQ
PMAT Panel mount kit - 2 gaskets, 4 mounting brackets, 2 sensor cables, and input connectors for sensors and power	PMAT-PANEL-2-C
PMAT Panel mount kit - 2 gaskets, 4 mounting brackets, 3 sensor cables, and input connectors for sensors and power	PMAT-PANEL-3-C
PMAT Panel mount kit - 2 gaskets, 4 mounting brackets, 4 sensor cables, and input connectors for sensors and power	PMAT-PANEL-4-C
PMAT2 Panel mount kit UPGRADE - 2 gaskets, 4 mounting brackets, 2 sensor cables (in replacement of standard cable), and input connectors for sensors and power	PMAT-PANEL-2-U
PMAT3 Panel mount kit UPGRADE - 2 gaskets, 4 mounting brackets, 3 sensor cables (in replacement of standard cable), and input connectors for sensors and power	PMAT-PANEL-3-U
PMAT4 Panel mount kit UPGRADE - 2 gaskets, 4 mounting brackets, 4 sensor cables (in replacement of standard cable), and input connectors for sensors and power	PMAT-PANEL-4-U
Replacement Pendotech PressureMAT Power supply with circular barrel connector, 12VDC, 1amp with plugs blades for destination	PMAT-PWR
Pinch Valve Pair- 24VDC supply & relay input for each normally closed valve- Small for 1/8 inch ID	PDKT-PVE2-PMAT-S
Pinch Valve Pair- 24VDC supply & relay input for each normally closed valve - Medium for 1/4 inch ID	PDKT-PVE2-PMAT-M
Pinch Valve- 24VDC supply & relay input for normally closed valve - Small for 1/8 inch ID	PDKT-PVE-PMAT-S
Pinch Valve- 24VDC supply & relay input for normally closed valve - Medium for 1/4 inch ID	PDKT-PVE-PMAT-M