

Custom systems

Model 9424 special Application controller

09/2023

Applications

- R&D testing
- High speed pressure calibration
- Optimized for speed in medium to large volume applications
- Aerospace sensor testing

Special features

- Utilized for pressures up to 1,500 psi
- Programmable output

Description

The Mensor Model 9424 special application pressure controller is a single channel pneumatic pressure monitor/controller/calibrator. The range of the instrument is preset by the customer and can be up to 1500 psi gauge or absolute pressure. The unit is optimized for high speed pressure tests into volumes from near zero to 11 liters or more. This controller is unique because it allows users to modify the control algorithm parameters to optimize performance for each application.

Functionality

The 9424 has a maximum supply pressure rating of 165 psi gauge for low pressure instruments and 1500 psi gauge for high pressure instruments and a recommended supply input of 110 % of the maximum installed transducer range. On the rear panel, four programmable outputs are available to drive external loads/devices. Each of the outputs are capable of driving 1 Amp loads at 12 volt DC. Wiring is done through a removable terminal block labeled from left to right as OUT1, OUT2, OUT3, and OUT4. Front panel touchscreen buttons and remote commands allow user control of these drive lines. Communications between the Model 9424 Special Application Pressure Controller and the user's computer are on an RS-232 9-pin D-Sub connector at 19,200 Baud, 8 data bits, 1 stop bit, and no parity.



Model 9424 - Special application controller

Unit setup

The Model 9424 should be installed on a level surface with adequate airflow. The supply pressure should be connected to the rear panel lower left port labeled as SUPPLY. The pressure should be approximately 110 % of the range. For sub-atmospheric pressure control, a vacuum pump is required and should be connected to the pressure port labeled EXHAUST. If only pressures above barometric pressure are required, no vacuum pump is needed and the EXHAUST port should be left open.

Maintenance

The instrument utilizes the Mensor Series CPT6100/6180 Digital Pressure Transducer for measurements. The standard Series CPT6180 transducers have an accuracy of 0.010 % of span and a precision of 0.003 % of span with a 180 day recommended calibration interval. The Series 6180 can be offered in certain ranges with higher accuracy and 365 day recommended calibration interval. Either the entire unit can be shipped to Mensor for calibration or the transducers can be removed from the unit and shipped by themselves to Mensor.

* Each new unit has a 1 year warranty from the date of delivery.

Specifications Model 9424

Basic instrument- Model 9424	
Pressure range	Up to a max of 1500 PSI
Pneumatic interface	7/16"-20 female SAE, 1/4" tube, or 6mm tube
Transducers	Series 6100 or series 6180 (certain ranges only)
Case configuration	Desktop or 19' rack mountable

Basic instrument- Model 9424	
Power	120-240 VAC, 47-63 Hz
Ambient operating temperature:	15 to 45 C
Storage temperature:	70 to -20C (Humidity < dew point)
Weight	≈ 24 lbs (10.89kg)
Languages	English
Communications	RS-232(Computer communication)
General dimensions	Width: 14.02" (35.61cm)
	Height: 7.55" (19.2 cm)
	Depth: 12.42" (35.61 cm)
Air supply recommendations	Quality class of 1.2.1 (ISO standard 8573.1)

Front panel features



Rear panel features



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