

MEASUREMENT OF COMPRESSED AIR CONSUMPTION



SONOAIR MIP
Multifunctional Sensor

SONOAIR MIP

All-in-one Solution for Compressed Air Monitoring

Nowadays the saving of energy is an important theme in all areas in which compressed air is used. The elimination of leaks in compressed air systems alone can save up to 30 % of the energy costs associated with the use of a compressor.

Incorrect compressor settings and general incorrect operation of equipment are other additional reasons for wasted energy. In addition to cost savings, regular inspections of equipment and foresightful preventative maintenance can also increase the operational reliability of equipment.

The various devices in our SONOAIR series detect consumption and losses through leakage of compressed air and non-combustible gases. The flow meters use calorimetric measurement principles, in which the heat generated by the flow of the monitored medium is detected by the sensor and converted to a measurement signal for digital processing.

Applications

- cost control at compressed air plants
- supporting the leak detection
- monitoring of energy consumption

Characteristics

- simultaneous measurement of mass flow, temperature and pressure
- also for mobile measurement
- three-line display with keypad
- built-in data logger for long term monitoring

Advantages

- all-in-one solution for compressed air monitoring
- easy installation and operation
- robust design
- bidirectional measurement at closed circular pipelines possible



Technical Data

Specifications	
Flow range	0.5 ... 150 m/sec [s.s.]
Accuracy	Volume flow rate: < 2 % of reading
	Pressure: $\pm 1,5$ % of the measuring value
	Temperature: $\pm 1^{\circ}\text{C}$ (at $v > 10 \text{ m}^3/\text{sec}$ [s.s.]
Temperature range	0 ... 60 $^{\circ}\text{C}$; optional: -40 ... 150 $^{\circ}\text{C}$
Pressure range	0 ... 16 bar
Humidity range	max. 95 % relative humidity [RH], non-condensing optional: for saturated air [RH 100 %]
Gases	Compressed air, nitrogen, industrial gas (inert and non-combustible gases)
Data logger	500,000 points
Mechanical specifications	
Pipe diameter	$\geq \text{DN } 50$
Process connection	$\frac{1}{2}$ " compression fitting
Degree of protection	IP52
Electrical specifications	
Connection type	5-pole M12 plug-in connector
Power supply	12 ... 24 Volt DC (24 V + 10 %)
Outputs	analog: 4 ... 20 mA active, digital: serial RS485 connection MODBUS – protocol
CE	EN 61326-1, EN 50082-1
Dimensions	
Shank length	400 mm, others available upon request

SONOTEC preserves the right to change technical specifications without further notice. (Rev. 04/20110706)

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