



Digital Flowmeter with wireless capability



Digital Flowmeter™ with wireless capability

Monitor compressed air usage and waste!

What is the Digital Flowmeter with wireless capability?

EXAIR's Digital Flowmeter with wireless capability is available as a built in option for EXAIR digital flowmeters. The easy way to monitor compressed air consumption and waste can now be done wirelessly over a ZigBee® mesh network! A radio module within each meter transmits data to an Ethernet connected gateway. Using the ZigBee mesh network protocol, data can be passed from meter to meter to extend the distance over which the wireless system can operate. Each meter has a range of 100' (30 meters). Setup is simple and consists of installing a meter, installing EXAIR's wireless-to-Ethernet gateway and running the graphing software available from our website. Many companies install the Digital Flowmeter on each major leg of their air distribution system to constantly monitor and benchmark compressed air usage.

Why the Digital Flowmeter with wireless capability?

The Digital Flowmeter with wireless capability includes a wireless output flowmeter and a wireless-to-Ethernet gateway for new installations. They are also available without a gateway if adding a meter to a gateway already existing in your plant. EXAIR simplifies the process by configuring each gateway to communicate with the flowmeter(s) to provide the necessary communication for monitoring your system. Models from 1/2" to 4" iron pipe are in stock. Each Digital Flowmeter is calibrated for the pipe size to which it is mounted. The large digital display shows air use in either SCFM or Cubic Meters per hour.

The Digital Flowmeter with wireless capability is designed for permanent or temporary mounting to the pipe. It requires the user to drill two small holes through the pipe using the included drill bit and locating fixture. The two flow sensing probes of the flowmeter are inserted in these holes. The unit seals to the pipe once the clamps are tightened. No cutting, welding, adjustments or calibration are ever required. If the unit needs to be removed, blocking rings are available. NEMA Type 4 (IP66) meters available. Consult the factory.



A Digital Flowmeter with wireless capability and Gateway includes a 24 VDC power supply with adapters, 3/16" drill bit, ethernet cable and hole locating fixture.

Advantages

- Provides wireless monitoring of EXAIR flowmeters throughout a plant
- Configured to prevent unwanted joining upon the network
- Monitoring software provided at no charge
- Utilizes mesh networking protocol to relay data from remote meters
- Transmits current air usage and cumulative air usage data
- 128 bit encryption for wireless transmissions
- Identify areas with high compressed air use
- Models from 1/2" to 4" Schedule 40 iron pipe in stock
- Models are also available for 5" and 6" in iron pipe
- Models are available for sizes 3/4" to 4" in copper pipe
- Easy to install

Digital Flowmeter with Wireless Capability and Gateway

Model #	Pipe Size	Range*	Drill Guide Kit
9090ZG	1/2" (Schedule 40 iron)	1-90 SCFM (2-153 m3/hr)	Yes
9090ZG-DG	1/2" (Schedule 40 iron)	1-90 SCFM (2-153 m3/hr)	No
9091ZG	3/4" (Schedule 40 iron)	1-120 SCFM (2-204 m3/hr)	Yes
9091ZG-DG	3/4" (Schedule 40 iron)	1-120 SCFM (2-204 m3/hr)	No
9092ZG	1" (Schedule 40 iron)	1-160 SCFM (2-272 m3/hr)	Yes
9092ZG-DG	1" (Schedule 40 iron)	1-160 SCFM (2-272 m3/hr)	No
9094ZG	1-1/2" (Schedule 40 iron)	2-200 SCFM (3-340 m3/hr)	Yes
9094ZG-DG	1-1/2" (Schedule 40 iron)	2-200 SCFM (3-340 m3/hr)	No
9095ZG	2" (Schedule 40 iron)	4-400 SCFM (7-680 m3/hr)	Yes
9095ZG-DG	2" (Schedule 40 iron)	4-400 SCFM (7-680 m3/hr)	No
9096ZG	2-1/2" (Schedule 40 iron)	5-500 SCFM (8-850 m3/hr)	Yes
9096ZG-DG	2-1/2" (Schedule 40 iron)	5-500 SCFM (8-850 m3/hr)	No
9097ZG	3" (Schedule 40 iron)	12-1200 SCFM (20-2039 m3/hr)	Yes
9097ZG-DG	3" (Schedule 40 iron)	12-1200 SCFM (20-2039 m3/hr)	No
9098ZG	4" (Schedule 40 iron)	20-2000 SCFM (34-3398 m3/hr)	Yes
9098ZG-DG	4" (Schedule 40 iron)	20-2000 SCFM (34-3398 m3/hr)	No

Digital Flowmeter with Wireless Capability (Gateway not included)

Model #	Pipe Size	Range*	Drill Guide Kit
9090Z	1/2" (Schedule 40 iron)	1-90 SCFM (2-153 m3/hr)	Yes
9090Z-DG	1/2" (Schedule 40 iron)	1-90 SCFM (2-153 m3/hr)	No
9091Z	3/4" (Schedule 40 iron)	1-120 SCFM (2-204 m3/hr)	Yes
9091Z-DG	3/4" (Schedule 40 iron)	1-120 SCFM (2-204 m3/hr)	No
9092Z	1" (Schedule 40 iron)	1-160 SCFM (2-272 m3/hr)	Yes
9092Z-DG	1" (Schedule 40 iron)	1-160 SCFM (2-272 m3/hr)	No
9094Z	1-1/2" (Schedule 40 iron)	2-200 SCFM (3-340 m3/hr)	Yes
9094Z-DG	1-1/2" (Schedule 40 iron)	2-200 SCFM (3-340 m3/hr)	No
9095Z	2" (Schedule 40 iron)	4-400 SCFM (7-680 m3/hr)	Yes
9095Z-DG	2" (Schedule 40 iron)	4-400 SCFM (7-680 m3/hr)	No
9096Z	2-1/2" (Schedule 40 iron)	5-500 SCFM (8-850 m3/hr)	Yes
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9097Z	3" (Schedule 40 iron)	12-1200 SCFM (20-2039 m3/hr)	Yes
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9098Z	4" (Schedule 40 iron)	20-2000 SCFM (34-3398 m3/hr)	Yes
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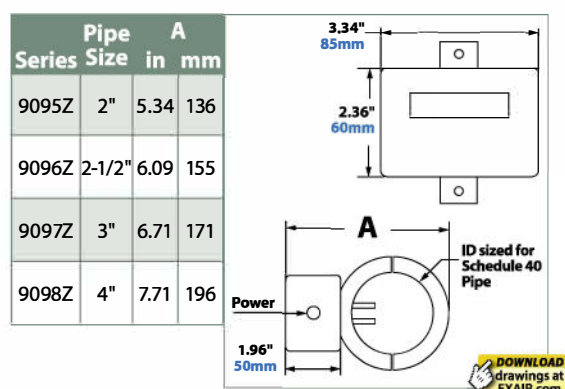
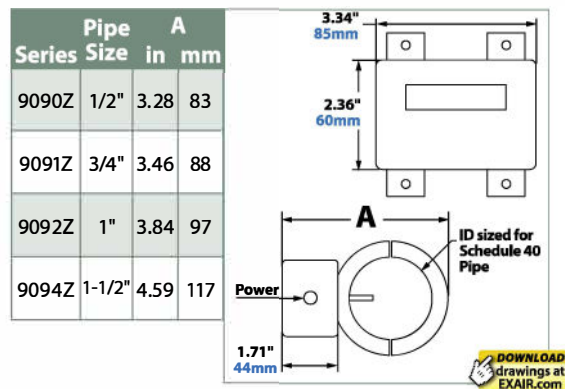
* Calibrated range. Usable range higher. Please consult factory.

Specifications for Digital Flowmeter with wireless capability

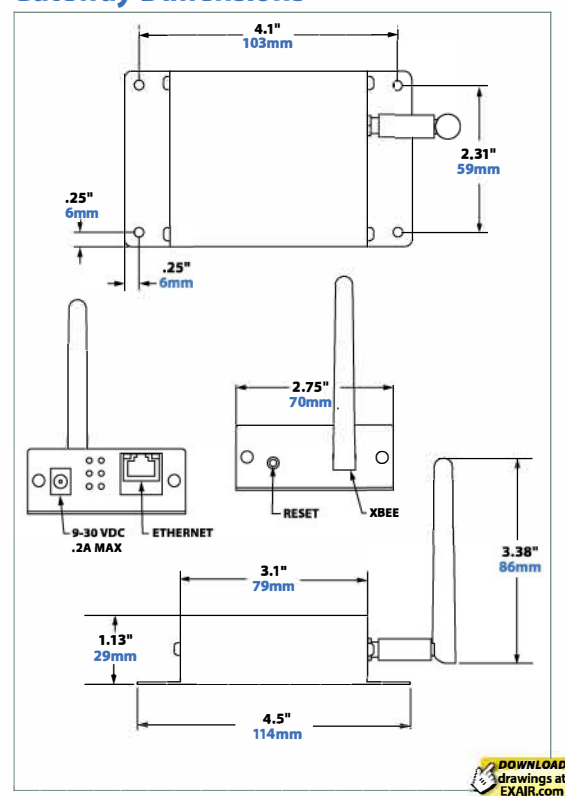
Accuracy	5% of reading, plus 1% of full scale for air temperatures between 40° to 120°F (4° to 49°C)
Operating Pressure	30 to 140 PSIG for best accuracy - 200 PSIG max.
Input Power	250 mA at 24 VDC / Power Adapter included 100-240VAC
Wetted Materials	Stainless steel, gold, thermal epoxy and Viton (seal)
Ring Material	Aluminum
Display	Four-digit LED display
Compliance	CE and RoHS

Note: For use with compressed air and nitrogen only.

Flowmeter Dimensions**



Gateway Dimensions



** If dimensions are critical for mounting, please consult the factory.



Digital Flowmeter



Digital Flowmeter™

Monitor compressed air usage and waste!

What Is The Digital Flowmeter?

EXAIR's Digital Flowmeter is the easy way to monitor compressed air consumption and waste! The digital display shows the exact amount of compressed air being used, making it easy to identify costly leaks or inefficient air products. Many companies install the Digital Flowmeter on each major leg of their air distribution system to constantly monitor and benchmark compressed air usage.

Why The Digital Flowmeter?

The Digital Flowmeter has an LED display that directly indicates the SCFM or m³/hr volume of airflow through that pipe. Models from 1/2" to 4" iron pipe are in stock. Each Digital Flowmeter is calibrated for the pipe size to which it is mounted.

The Digital Flowmeter is designed for permanent or temporary mounting to the pipe. It requires the user to drill two small holes through the pipe using the included drill bit and locating fixture. The two flow sensing probes of the flowmeter are inserted in these holes. The unit seals to the pipe once the clamps are tightened. No cutting, welding, adjustments or calibration are ever required. If the unit needs to be removed, blocking rings are available. NEMA Type 4 (IP66) meters available. Consult the factory.



Advantages

- Easy to install - No moving parts
- Summing Remote Display and Data Logger available
- Optional RS-485 output serial communication board available
- Sensitive at low flows
- No calibration or setup required
- Includes all components for installation
- Models from 1/2" to 4" Schedule 40 iron pipe in stock
- Models are available for sizes 1/2" to 6" in iron pipe
- Models are available for sizes 3/4" to 4" in copper pipe



EXAIR's Digital Flowmeter family is available in many sizes from stock.



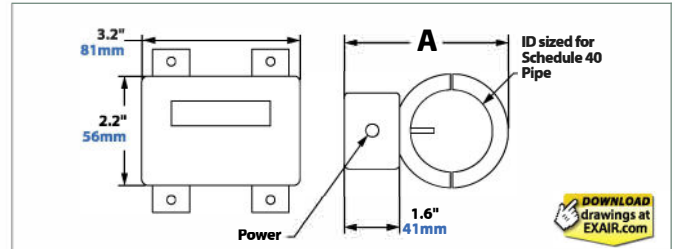
Digital Flowmeter

Model #	Pipe Size	Range*
9090	1/2" (Schedule 40 iron)	1-90 SCFM
9090-M3	1/2" (Schedule 40 iron)	2-153 m ³ /hr
9090-DAT	1/2" (Schedule 40 iron)	1-90 SCFM
9090-M3-DAT	1/2" (Schedule 40 iron)	2-153 m ³ /hr
9091	3/4" (Schedule 40 iron)	1-120 SCFM
9091-M3	3/4" (Schedule 40 iron)	2-204 m ³ /hr
9091-DAT	3/4" (Schedule 40 iron)	1-120 SCFM
9091-M3-DAT	3/4" (Schedule 40 iron)	2-204 m ³ /hr
9092	1" (Schedule 40 iron)	1-160 SCFM
9092-M3	1" (Schedule 40 iron)	2-272 m ³ /hr
9092-DAT	1" (Schedule 40 iron)	1-160 SCFM
9092-M3-DAT	1" (Schedule 40 iron)	2-272 m ³ /hr
9094	1-1/2" (Schedule 40 iron)	2-200 SCFM
9094-M3	1-1/2" (Schedule 40 iron)	3-340 m ³ /hr
9094-DAT	1-1/2" (Schedule 40 iron)	2-200 SCFM
9094-M3-DAT	1-1/2" (Schedule 40 iron)	3-340 m ³ /hr
9095	2" (Schedule 40 iron)	4-400 SCFM
9095-M3	2" (Schedule 40 iron)	7-680 m ³ /hr
9095-DAT	2" (Schedule 40 iron)	4-400 SCFM
9095-M3-DAT	2" (Schedule 40 iron)	7-680 m ³ /hr
9096	2-1/2" (Schedule 40 iron)	5-500 SCFM
9096-M3	2-1/2" (Schedule 40 iron)	8-850 m ³ /hr
9096-DAT	2-1/2" (Schedule 40 iron)	5-500 SCFM
9096-M3-DAT	2-1/2" (Schedule 40 iron)	8-850 m ³ /hr
9097	3" (Schedule 40 iron)	12-1200 SCFM
9097-M3	3" (Schedule 40 iron)	20-2039 m ³ /hr
9097-DAT	3" (Schedule 40 iron)	12-1200 SCFM
9097-M3-DAT	3" (Schedule 40 iron)	20-2039 m ³ /hr
9098	4" (Schedule 40 iron)	20-2000 SCFM
9098-M3	4" (Schedule 40 iron)	34-3398 m ³ /hr
9098-DAT	4" (Schedule 40 iron)	20-2000 SCFM
9098-M3-DAT	4" (Schedule 40 iron)	34-3398 m ³ /hr

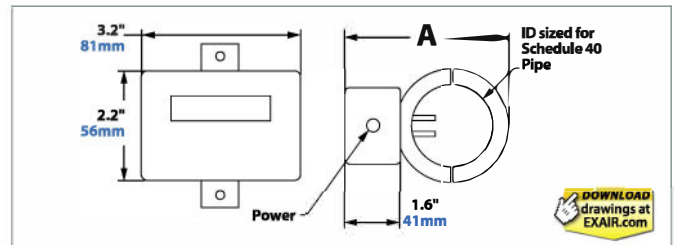
Note: DAT models have the Data Logger installed.

*Calibrated range. Usable range higher. Please consult factory.

Dimensions*



Series	Pipe Size	A	
		in	mm
9090	1/2"	3.00	76
9091	3/4"	3.25	83
9092	1"	3.63	92
9094	1-1/2"	4.38	111
9095	2"	4.88	124



Series	Pipe Size	A	
		in	mm
9096	2-1/2"	5.75	146
9097	3"	6.38	162
9098	4"	7.38	187

*If dimensions are critical for mounting, please consult the factory.



Each Digital Flowmeter includes an 24 VDC power supply with plug adapters, 3/16" drill bit and hole locating fixture.

Specifications for Digital Flowmeter	
Accuracy	5% of reading, plus 1% of full scale for air temperatures between 40° to 120°F (4° to 49°C)
Operating Pressure	30 to 140 PSIG for best accuracy - 200 PSIG max.
Input Power	250 mA at 24VDC/ Power Adapter included 100-240VAC
Wetted Materials	Stainless steel, gold, thermal epoxy and Viton (seal)
Ring Material	Aluminum
Display	Four-digit LED display
Compliance	CE and RoHS

Note: For use with compressed air and nitrogen only.



Digital Flowmeter Accessories



What is the Summing Remote Display?

EXAIR's Summing Remote Display for the Digital Flowmeter makes it easy to monitor compressed air consumption from a convenient location. With the push of a button, the display cycles to show the current air consumption, usage for the previous 24 hours, and total cumulative usage. Regular monitoring of the air usage of a machine, process or department makes it possible to save thousands of dollars per year in compressed air waste by identifying the costly leaks or inefficient air products.

The Digital Flowmeter (sold separately) has a four digit LED display that directly indicates the SCFM (standard cubic feet per minute) or m³/hr (cubic meters per hour) of airflow through the pipe it is mounted upon. The Summing Remote Display shows that flow measurement, the daily and cumulative usage and is frequently used when the Digital Flowmeter is in an obscure, hard to read location. The accuracy of the displayed measurement is within 5% of the reading when the air temperature is 40-120°F (4-49°C) and air pressure is between 30-140 PSIG (2-10 BAR). No adjustments or calibration are ever required. The Summing Remote Display is CE and RoHS compliant.

It is prewired with 50' (15.2m) of cable and is powered by the Digital Flowmeter.

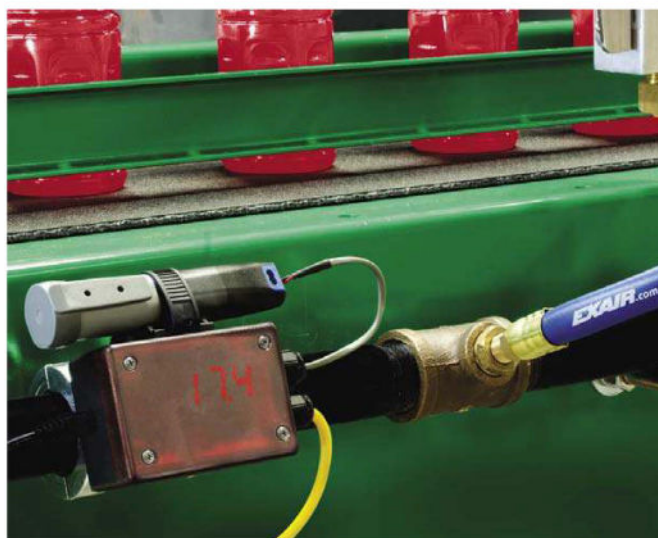
What is the USB Data Logger?

EXAIR's award-winning Model 9147 USB Data Logger connects directly to your Digital Flowmeter and is simple to use. Download the software to configure the Data Logger to record your flow rate from once a second (about nine hours of data) up to once every 12 hours (over two years!).

When the Data Logger is removed from the Digital Flowmeter and plugged into a computer, the data can be viewed in the software or exported directly into Microsoft Excel®. The Data Logger is available pre-installed on the Digital Flowmeter.



EXAIR's Summing Remote Display for the Digital Flowmeter.



Summing Remote Display

Model #	Description
9150	LED Readout displays SCFM
9150-M3	LED Readout displays m ³ /hr

Block-Off Rings

Model #	Pipe Size
901327	Block-Off Rings for 9090, 9090-M3 or 9090Z
901328	Block-Off Rings for 9091, 9091-M3 or 9091Z
901329	Block-Off Rings for 9092, 9092-M3 or 9092Z
901331	Block-Off Rings for 9094, 9094-M3 or 9094Z
901332	Block-Off Rings for 9095, 9095-M3 or 9095Z
901333	Block-Off Rings for 9096, 9096-M3 or 9096Z
901334	Block-Off Rings for 9097, 9097-M3 or 9097Z
901335	Block-Off Rings for 9098, 9097-M3 or 9097Z



USB Data Logger

Model #	Description
9147	USB Data Logger for Digital Flowmeter