Explanation of Units of Measure

CDI 5200 and 5400 flowmeters measure mass flow of air or Nitrogen. For convenience, they read out in volumetric units, but these units represent the air, or Nitrogen, at accepted reference conditions.

When the meters indicate flow in cubic feet, they refer to the amount of air that would occupy a cubic foot at a temperature of 20 degrees C and a pressure of one atmosphere. When they indicate flow in cubic meters, they refer to air at one of two conditions. One is zero degrees C and atmospheric pressure, according to DIN standard 1343. The other is 20 degrees C and atmospheric pressure, which corresponds more closely to the volumetric conditions at which compressors are rated.

For displays reading in metric units based on air at 20 degrees C, please specify M3M (cubic meters per minute) or M3H (cubic meters per hour). For displays reading in metric units according to the DIN standard (0 degrees C), add "DIN".

Mass of Air at Atmospheric Pressure

	pounds	kilograms
1 cubic foot at 20 degrees C	0.0752	0.0341
1 cubic meter at 0 degrees C	2.850	1.292
1 cubic meter at 20 degrees C	2.656	1.204

Conversion of Mass Flow Units

scfm	Nm3/min (20º C)	Nm3/min (0º C)	Nm3/hr (20º C)	Nm3/hr (0º C)
1	0.02831	0.02638	1.699	1.583
35.31	1	0.9317	60	55.90
37.90	1.073	1	64.40	60
0.5886	0.01667	0.01553	1	0.9317
0.5484	0.01789	0.01667	1.073	1

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