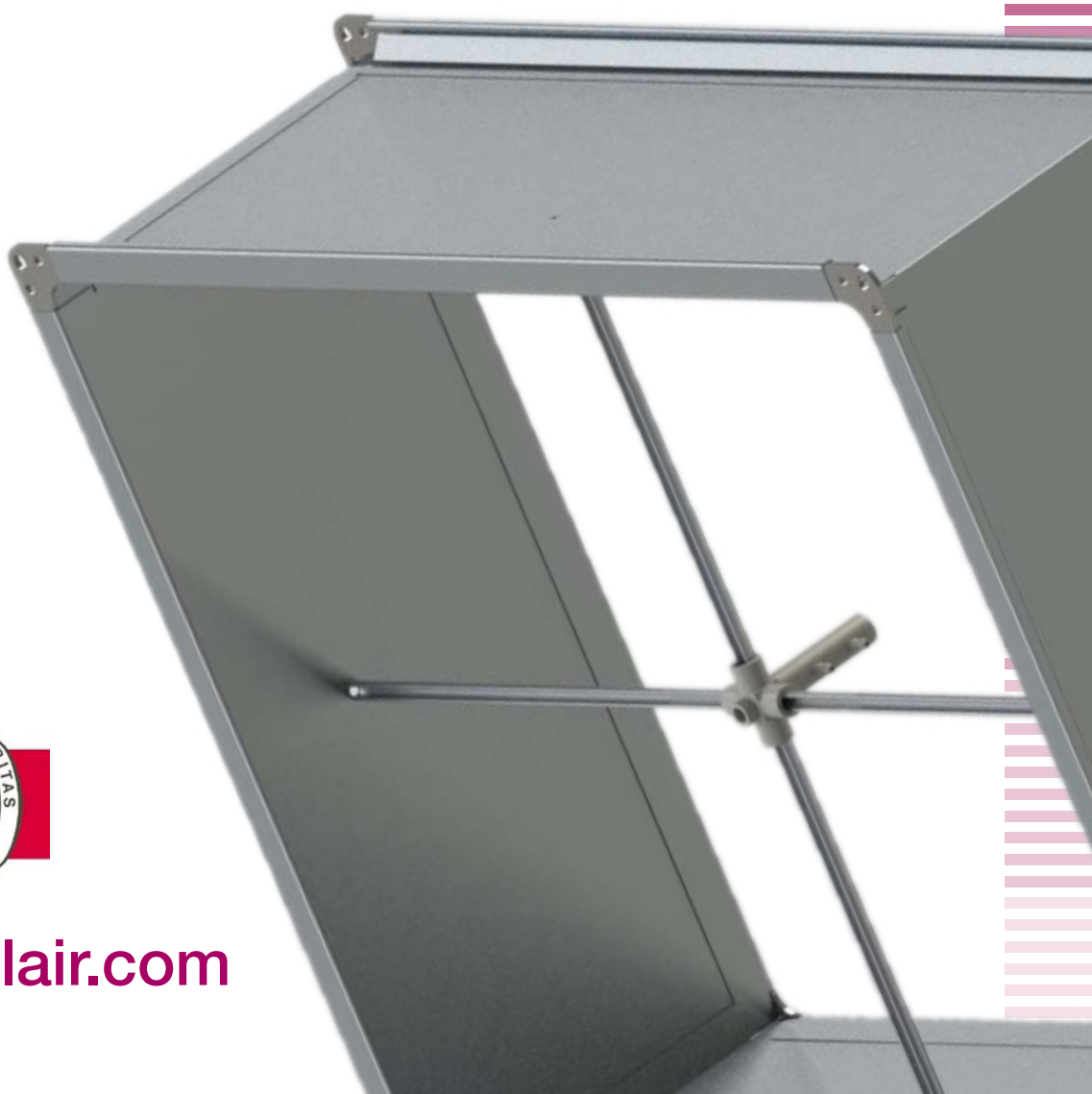
KOOLAIR

series

MEASUREMENT STATIONS



ISO 9001
BUREAU VERITAS
Certification
Sistema de Gestión

www.koolair.com

Measurement stations

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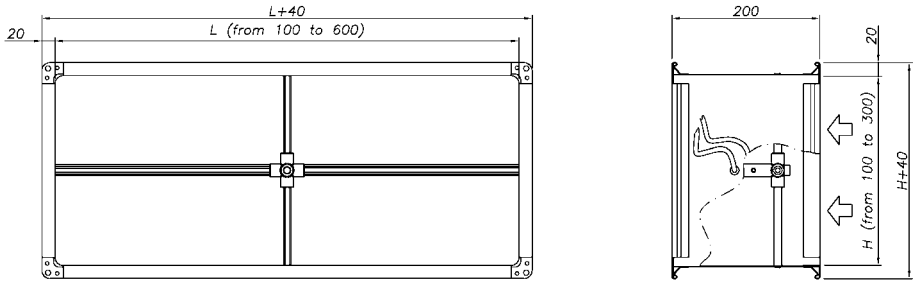
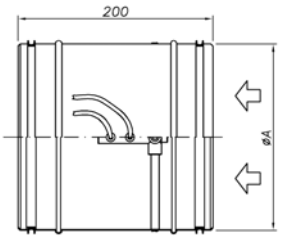
Measurement stations

Description

The Koolair model EM measurement stations are elements designed to measure the air volume which passes through it.
The EMC casing is circular with diameters from 80 to 630 mm, corresponding to the normalised diameters for circular ducts.
The EMQ casing is rectangular with dimensions LxH mm.
In the inlet duct a cross-shaped probe is installed to measure the differential pressure that varies with the air volume entering the unit.
The casing of the regulator is made from galvanized sheet metal and the cross-shaped tubes in aluminum. They can be installed either in a vertical or horizontal position
It conforms to class C classification for casing leakage according to EN 1751.



EMQ



MODEL	Ø A
80	78
100	98
125	123
160	158
200	198
250	248
315	313
355	353
400	398
450	448
500	498
630	628

EMC

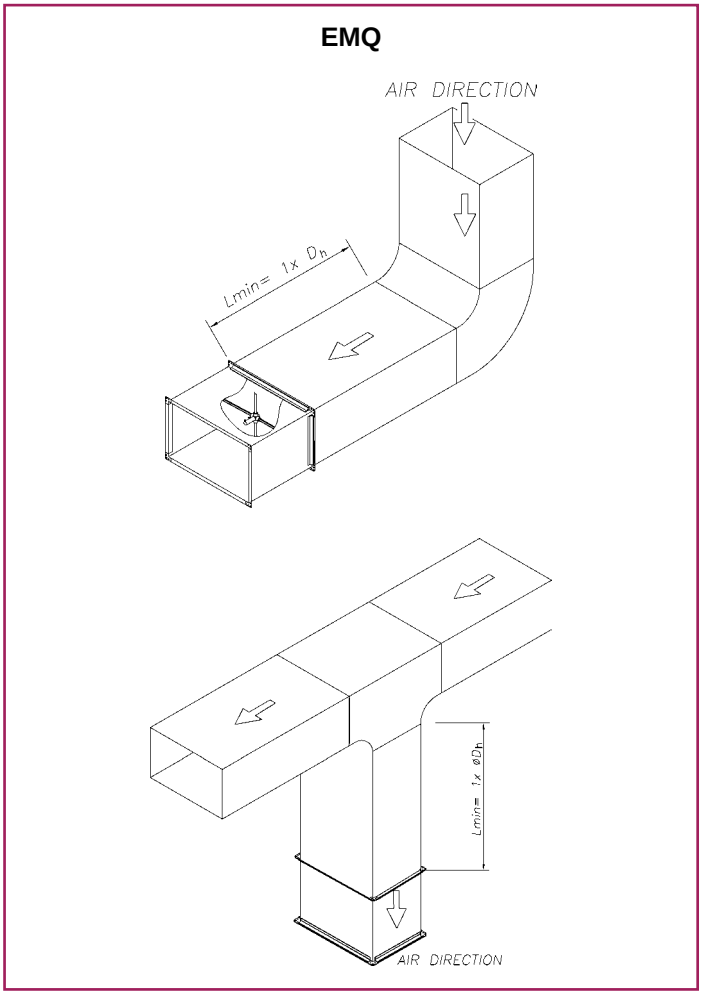
Product code

EMC	circular measurement station
EMQ	rectangular measurement station
LxH	length x height in mm
Ø	diameter in mm

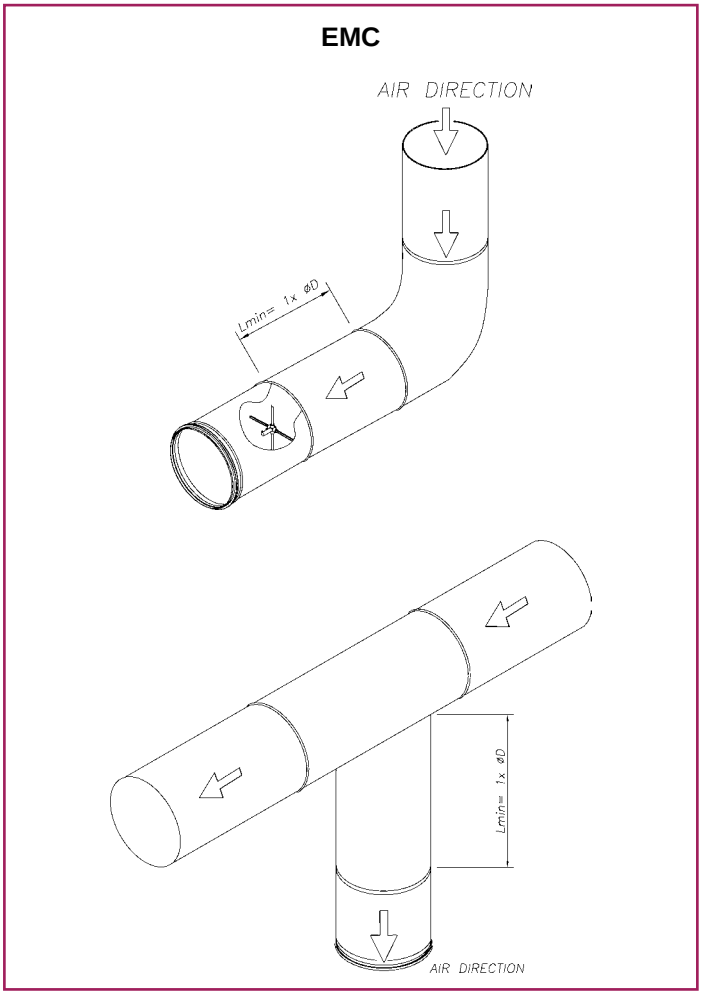
Installation

To ensure an accurate flow measurement must respect the detailed distances in the images below.
Installation is independent of the direction of airflow.
The hydraulic diameter is calculated using the formula $D_h = 2*(LxH) / (L+H)$

EMQ



EMC



Flow measurement

From the value of the measured differential pressure sensor located in the inlet of the station the passing airflow is determined using the expression:

$Q = C \cdot \sqrt{P_d}$

Where:
Q = Air flow in m^3/h
C = Coefficient to convert the differential pressure reading to airflow rate
P_d = Differential pressure sensor in Pa

The accuracy of the measured flow rate is within a tolerance of ± 5%.
On request, available with built-in pressure gauges or with a Belimo VRU-D3-BAC flowmeter suitable for measuring and monitoring air flow by analogue communication, BACnet MS/TP, Modbus RTU or Belimo MP-Bus.

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