

Electronic Duct Hygrostats



Energy &
Atmosphere



Indoor
Environmental
Quality



QFM81.21 Electronic Duct Hygrostat
with Internal Setpoint.



QFM81.2 Electronic Duct Hygrostat
with External Setpoint.

Description

On/off hygrostat with microswitch, and temperature-compensated humidity sensor for temperature-independent humidity measurements.

Features

- Stabilized sensing strip
(good linearity, very stable even at high humidity,
insensitive to dust and contaminated air)
- Can be mounted in ventilating ducts or rooms

Applications

For controlling humidification and dehumidification equipment.

E-31

Sensors

QFM81 Electronic Duct Hygrostats Specifications

Setpoint Range 30 to 90% rh
Control Mode On/off
Type of Switch Potential-free Microswitch (SPDT)
Contact Rating
 Maximum 5 (3) A, 24 Vac/Vdc
 Minimum 100 mA, 24 Vac/Vdc
Temperature Influence Compensated
Long-term Stability Approximately -1.5% rh/a
Balancing At 55% rh, 73°F (23°C)
Time Constant ($v = 0.2$ m/s)..... Approx. 3 minutes
Permissible Air Velocity 10 m/s
Permissible Ambient Temperature
 Operation 32°F to 158°F (0°C to 70°C)
 Storage/transport -22°F to 158°F (-30 to 70°C)
Degree of Housing Protection
 FM81.2 IP 30 to EN 60 529
 QFM81.21 IP 55 to EN 60 529

Safety Class II to EN 60 730
Electrical Connection
 Screw Terminals 20 AWG Minimum
 2 x 16 AWG Maximum
Materials and Colors
 Sensing Element Polymer
 Casing with Stem PPS, Fortron 1140L6, Fiberglass Reinforced
 Cover PC Lexan 940
 Transparent Cover (QFM81.21) PC Makrolon 2014R
Agency Approvals UL listed for UL873
 cUL Canadian Standard C22.2 No. 24-93
Weight Approx. 12 ounces (0.34 kg)

QFM81 Electronic Duct Hygrostats Product Ordering

Description	Control Range	Type of Control	Part No.
Duct	15 to 95% RH	Humidity Switch with External Setpoint	QFM81.2
Duct	15 to 95% RH	Humidity Switch with Internal Setpoint	QFM81.21

NOTE: Includes a mounting flange (for duct or wall mounting) and a sealing ring (for duct mounting).

Accessories & Service Kits

E-51

E-32

Sensors