



Mass Flow Controller / Meter

AFC 50 / AFM 55

AFC & AFM Series



Features

The traditional analog **Qualiflow Therm AFC 50** and **AFM 55** with elastomeric seals and magnetic valve :

- Unique fast and reliable horizontal magnetic valve.
- Low pressure drop option for TEOS SDC, TiCl₄, etc... Using Large sensor diameter gives very low pressure drop and defeats contamination and clogging.
- Perfect flow splitting through special bypass design, giving optimal linearity and accuracy.
- Good surface finish for ultra clean operation.
- Normally open and normally closed version available with color identification (green for NO, red for NC).
- Gasketed endplates, no threading.
- Purge command with control software.

Calibration

MFCs are calibrated with Nitrogen

Reference Standards..... Temperature □ 273.15K
..... Pressure □ 101325 Pa

Input and Output

Mass Flow Controller..... ± 15 VDC, 200 mA
Mass Flow Meter..... ± 15 VDC, 50 mA
Input and Output Signal..... from 0 to 5 VDC
Electrical Connector..... Sub-D 15 pins Male

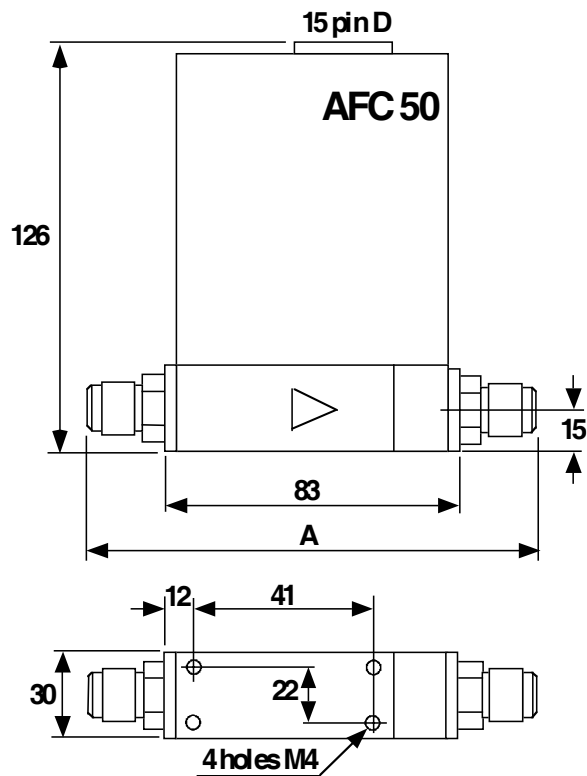
Options

External sensor input
Kalrez seals
Low differential pressure
Card edge adaptor
Compatible with AFC 261

Specifications

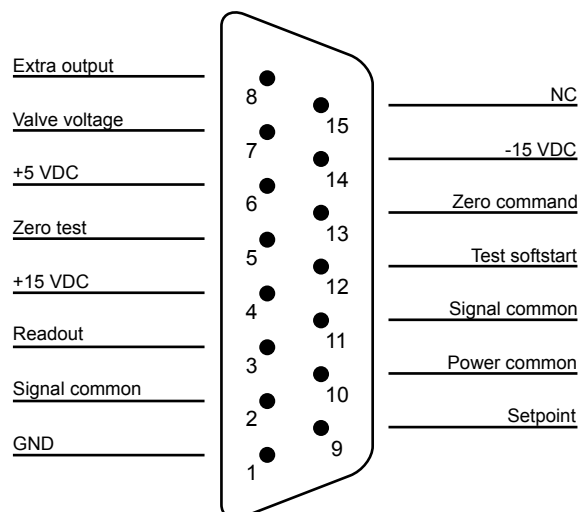
Flow Range (equivalent N₂)..... 10 sccm to 25 slm
Control Range..... 2 – 100% F.S.
Valve Type..... Electromagnetic
Valve Rest Position..... Normally Open or Closed
Accuracy..... ± 1% of F.S.
Linearity..... ± 0.5% of F.S.
Repeatability..... ± 0.2% of F.S.
Sensibility to Mounting Position..... ± 0.1% of F.S.
Step Response Time..... □ 2 sec. typical (SEMI E17-91)
Operating Temperature..... 5□50°C, Non-condensing
Temperature Coefficient..... < 0.5% F.S./°C
Maximum Inlet Pressure..... 1 MPa (10bar, 150psi)
Minimum Differential Pressure..... 50 kPa (0.5bar, 7psi)
..... 3 kPa (30mbar, 0.45psi) mini with low DP option
Maximum Differential Pressure..... 300 kPa (3bar, 43psi)
Pressure Coefficient..... < 0.1% F.S./10⁵ Pa
Wetted Materials..... 316 L Stainless steel
..... Kel-F
..... Seals material
Surface Finish..... 0.4 μm (16 μinch) R_a max
Leak Integrity..... < 2.10⁻⁹ atm.scc/sec (He)
Standard Seals..... Viton, Neoprene
Fittings..... ¼" VCR, Swagelok
Weight..... 0.6Kg

Dimensions



	VCR 1/4" MM	SWAGelok 1/4"	MODULINE VCR 1/4" FM
A (mm)	124	126,6 (inc Nuts)	141,6

Pinout configuration



Connector 15-pin, type "D", male