

Mass Flow Meters

◆ Features

This series is a basic series of compact digital Mass Flow Meters.

1. Surface finish of the gas wetted area is electropolishing
(except rubber seal models).

2. Clog free sensor

The sensor tube of large ID achieved both the minimized pressure drop and high sensitivity.

3. Operating temperature 150°C, baking temperature 200°C for high temperature models. (FMT1680F Series)

4. Very low flow models

Mass flow meter with full scale of 1 SCCM is also available.



◆ Product specifications ^{※1}

Item		Specifications						
Model		Low flow model	Conventional models		High temperature models			
		FMT1460F	FMT1480F	FMT1481F	FMT1482F	FMT1590F FMT1680F	FMT1581F FMT1681F	FMT1582F FMT1682F
Standard full scale flow rate (N ₂ equivalent)		1/2/3/5/ 10 SCCM	10/20/30/50/ 100/200/300 500 SCCM 1/2/3/5 SLM	10 SLM	20/30 SLM	10/20/30/50/ 100/200/300 500 SCCM 1/2/3/5 SLM	10 SLM	20/30 SLM
Flow detection range		2—100% of full scale						
Accuracy		±0.5% of full scale						
Proof pressure		1.0MPa (Gauge)						
Temperature	Operation	5—50°C				5—80°C (FMT15xxF) 5—150°C (FMT16xxF)		
	Accuracy guaranteed	15—35°C				Temperature range of ±10 deg in operation temperature		
	Baking	80°C				Less than 150°C (FMT15xxF) Less than 200°C (FMT16xxF)		
Leak integrity	Metal seal	Less than 1x10 ⁻⁷ Pa · m ³ /s(He)						
	Rubber seal	Less than 1x10 ⁻⁷ Pa · m ³ /s(He)				—		
Principle materials	Sensor		SUS316L, Ni-brazing ^{※2}					
	Seal	Metal	Metal O-ring (SUS316L/Ni-plated) ^{※2}					
		Rubber	PTFE, Viton O-ring				—	
Flow signal output		0—5VDC (max:+15VDC, min:—15VDC)						
Power supply		+15VDC (±4%) 100mA (max120mA)						
		—15VDC (±4%) 100mA (max120mA)						
Finish of gas wetted area		Special electropolishing ^{※3}						
Connection		D-Subminiature (9 pin)						
Fittings		1/4" HMJ (UJR) male ^{※4}						
Dimensions		The same as SFC1480F series				The same as SFC1590F/1680F series		

^{※1} These specifications can be guaranteed in Hitachi Metals' standard measurement condition. They may not be guaranteed in other measurement condition.

^{※2} Ni free models are also available. (except FMT14□2F, FMT15□2F, and FMT16□2F)

^{※3} Standard surface finishing for rubber seal models is machine-finish.

^{※4} Contact us for other fittings.



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