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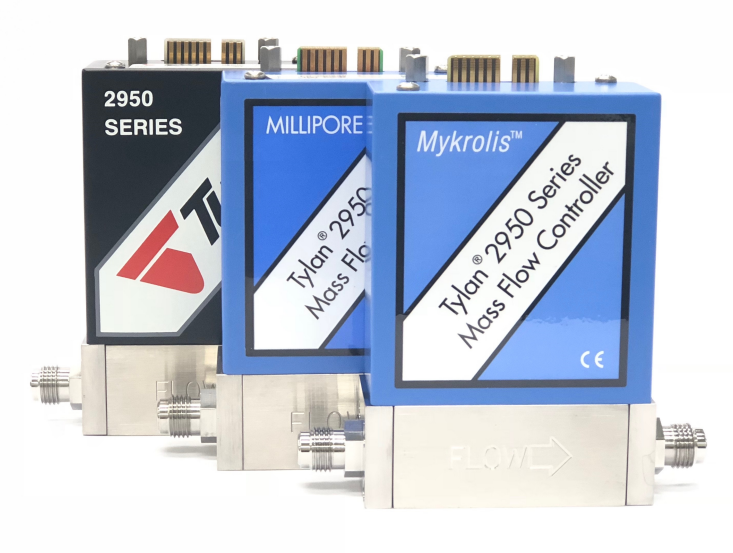
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Find the *Millipore / Tylan FC-2950MEP5* at our website: ***Click HERE***

TYLAN/MILLIPORE/MYKROLIS/CELERITY/BROOKS MASS FLOW CONTROLLER/FLOWMETERS FC-2950MEP5 SERIES



Model
FC-2950MEP5/2951MEP5/2952MEP5
FM-3950MEP5/3951MEP5/3952MEP5

Features
Super Clean Design
Elastomer Free, All Metal Flow Path
Fast and slow response
High Purge Capability
Autozero circuitry
Normally open and closed valve
Corrosion resistant materials

Designed specifically to meet the exacting ultra clean requirements of today's semiconductor and industrial processes, the FC-2950M series of mass flow controllers and FM-3950M series of mass flowmeters represents the latest advance in clean technology from Tylan General. Beginning with our initial product concepts, the FC-2950M is designed and manufactured for ultra clean applications. The FC-2950M uses an annular bypass, simple flow paths, a diaphragm sealed solenoid valve and 0.13 mm (5 minch)Ra.max surface finishes to maximize cleanliness. Dead spaces and trapped volumes are minimized, virtually eliminating contamination contributed by the MFC and providing for short pump down times.

The unique valve design of the FC-2950M allows for high purge rates even on low flow MFCs, significantly decreasing clean up times. Additionally, the FC-2950M, as a member of the 2900 family of flow products, incorporates the 2900 electronics for enhanced process stability.

Elastomer Free, All Metal Flow Path
The FC-2950M base, bypass and fittings are made from 316L VIM/VAR to ensure a pure starting material and improve the final surface finish of the product. The valve uses a sapphire seat, removing all elastomers from the gas-wetted path and greatly reducing a major source of outgassing and particulate contaminants.

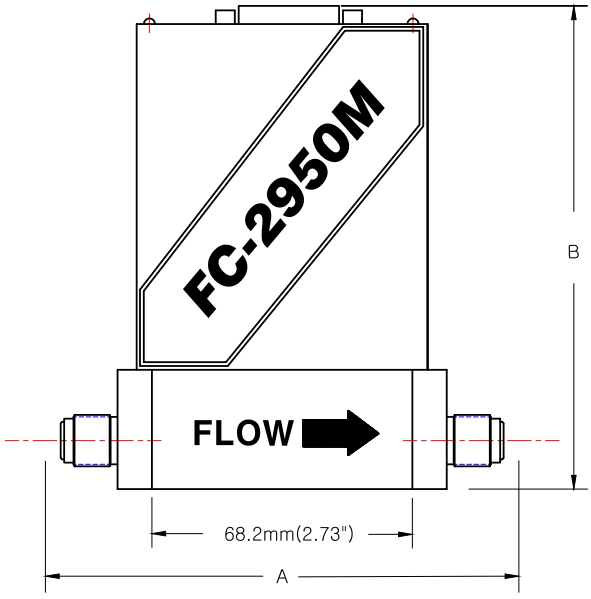
Super Clean Design
Starting with an aerodynamic, annular bypass that is welded into the base and a diaphragm sealed solenoid valve, the dead spaces and trapped volumes have been minimized. The flow paths were designed for manufacturability in the machining and electropolishing processes which leads to lower costs and higher performance. The standard surface finish throughout the gas wetted paths is 0.13 mm (5 minch) Ra.max.

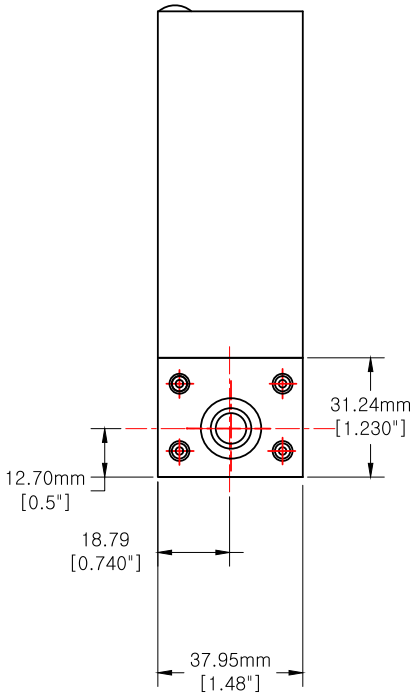
High Purge Capability
When the full scale range of an MFC is less than a few hundred seem, the full scale flow is often too low to rapidly purge contaminants from the MFC during installation and removal. The unique design of the FC-2950M valve allows purge flows of 2X to 10X full scale, greatly reducing clean up and installation times.

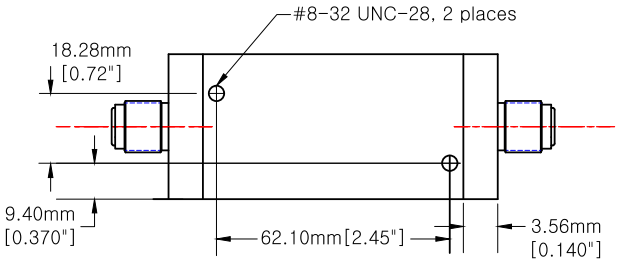
High Performance 2900 Electronics
The FC-2950M, as a member of the 2900 family of flow products, incorporates the 2900 electronics for enhanced process stability. The 2900 electronics provides a balanced power load to minimize common mode rejection problems and greatly reduced flow sensitivity to cable lengths and power supply variations. The 2900 electronics also offers selectable autozero and reduced ambient temperature coefficients for increased flow stability. The FC-2950M has a 20 pin card edge connector and the FC-2951 M uses a 15-pin subminiature "D" connector. The FM-3950M and the FM-3951M are flowmeters which provide the same accuracy and performance as their corresponding flow controllers.

TYLAN/MILLIPORE/MYKROLIS/CELERITY/BROOKS MASS FLOW CONTROLLER/FLOWMETERS FC-2950MEP5 SERIES

Dimensions







CODE	FITTING & SIZE	"A" DIM
4V	¼ inch VCR	4.88 inch 124 mm

CODE	"B" DIM
CARD	5.15 inch 131 mm
9 PIN 15 PIN	5.44 inch 138 mm

TYLAN/MILLIPORE/MYKROLIS/CELERITY/BROOKS MASS FLOW CONTROLLER/FLOWMETERS FC-2950MEP5 SERIES

SPECIFICATIONS	
Flow Rate(N2)	10 sccm to 30 slm
Shutdown	<2%full scale
Response Time	1 sec
Accuracy	± 1%full scale
Linearity	± 0.5%full scale
Repeatability	± 0.2%full scale
AttitudeSensitivity	<0.25%@ 90degrees
Temperature Coefficient	± 0.05%/ deg C zero and span
Pressure Coefficient	± 0.007%/psi full scale
Input / Output Signal	0-5 VDC / 4-20mA(15 pin connector)
Supply Voltage	-15V VDC ± 4 %, 110 m A ; + 15 VDC ± 4 %, 110m A
Power Consumption	3.3 watts@±15VDC
Minimum Load Impedance	2000 ohms
Materials	316L ss, 446 ss, Nickel
Surface Finish	EP5 = 0.13um Ra
Leak Integrity	5x 10-11 atrn cc He/sec
Operating Temperature	0-50 ·c (ambient and gas)
Humidity	0-95% RH, non-condensing
Maximum Operating Pressure	150 psig
Proof Pressure	500 psig
Differential Pressure	10-40 psid to 5 slm, 15-40 psid to 50 slm
	(Contact Technical Support for low pressure drop or high inlet pressure applications)

Note: In accordance with SEMI Standanl El2-91, Standanl Temperature is o•c and Standanl Pressure is 76o mm Hg (14.7 psia).
All specifications subject to change without notice
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Order Information

F	FLOW										
	C	CONTROLLER									
	M	METERS									
		29	MASS FLOW CONTROLLER								
		39	MASS FLOW METER								
			50	Card Edge Connector							
			51	15 pin Connector							
			52	9 pin Connector							
				MEP5	Metal SEAL. Surface Finish EP5						
					No	Normally Closed Valve					
					O	Normally Open Valve					
						4	1/4 inch				
							V	VCR			
								O2	GAS NAME		
									0000	MAX FLOW RANGE	
										SCCM	Standard Cubic Centimeter Per Minute
										SLPM	Standard Liters Per Minute
											00 Operate Pressure
											PSIG
F	C	29	50	MEP5		4	V	O2	200	SCCM	30 PSIG
FC-2950MEP5-4V-O2-200SCCM-30PSIG											

Electrical Connection

Connector	CASE GND	COMMON	0-5V OUT	+15VDC	0-5V IN	COMMON	COMMON	4-20mA IN	4-20mA OUT	-15VDC
Card Edge	1	2	3	4	A	B	C			F
15 pin	14	1	2	5	8	9	10	7	4	6
9 pin	9	7	2	3	6	8	4			5

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