

'FC1H' Flow Controls

Unidirectional flow with Built-In Check Valve; 1/8" to 2"; Carbon Steel body for working pressures to 5,000 PSI



DMIC's updated 'FC1H' is now U.S. made in Buyer's choice of domestic port thread. Dual taper needle design provides fine metering at low flows and rapid response at higher flows. The first three turns provide fine response, while the final three turns provide quick response.

- DMIC's 'ChromaFlow' color-coded design facilitates initial calibration, system documentation, and restoration of correct settings if required
- Designed for **5,000 PSI maximum operating pressure**
- Integral 5 PSI poppet check valve** provides free return flow
- Optional security knob** (append suffix '/LHS') permanently fixes valve flow setting for tamper resistance and "goof-proofing"
- For OEM production quantities, **optional "fine" needle profile** available

Flow Control Part No.	Nominal Size	Port Thread	PERFORMANCE DATA				DIMENSIONS (inches, mm)						
			Flow GPM ¹	Metered Direction		Free Flow		A	B	C	D	E	Lbs. kg
				Orifice (sq.in., mm ²)	Effective C _v	Orifice (sq.in., mm ²)	Effective C _v						
FC1H-0125N	1/8"	1/8" NPTF	3 GPM	0.0102	0.230	0.023	0.53	1.54	0.63	1.28	2.00	0.75	0.3
FC1H-0125B		1/8" BSPP	11 l/m	6.6		14.8		39.1	15.9	32.5	50.8	19.1	0.1
FC1H-0250N	1/4"	1/4" NPTF	5 GPM	0.0194	0.433	0.068	1.56	1.79	0.81	1.66	2.63	0.81	0.5
FC1H-0250B		1/4" BSPP	19 l/m	12.5		43.9		45.5	20.6	42.2	66.7	20.6	0.2
FC1H-0375N	3/8"	3/8" NPTF	8 GPM	0.0344	0.787	0.099	2.27	2.18	1.00	1.75	2.75	1.00	0.7
FC1H-0375B		3/8" BSPP						55.4	25.4	44.5	69.9	25.4	0.3
FC1H-0375S		#6 SAE						1.85	1.00	1.92	3.13	0.81	0.6
FC1H-0375IU		16mm ISO6149						47.0	25.4	48.8	79.4	20.6	0.2
FC1H-0500N	1/2"	1/2" NPTF	15 GPM	0.0427	0.976	0.224	5.11	2.70	1.25	2.24	3.44	1.19	1.5
FC1H-0500B		1/2" BSPP						68.6	31.8	56.9	87.3	30.2	0.7
FC1H-0500S		#8 SAE						2.24	1.13	2.12	3.50	1.00	1.0
FC1H-0500IU		18mm ISO6149						56.9	28.6	53.8	88.9	25.4	0.5
FC1H-0625S	5/8"	#10 SAE	15 GPM	0.0427	0.976	0.224	5.11	2.68	1.25	2.56	4.00	1.19	1.8
FC1H-0625IU		22mm ISO6149	57 l/m	27.6		144.5		68.1	31.8	65.0	101.6	30.2	0.8
FC1H-0750N	3/4"	3/4" NPTF	25 GPM	0.1080	2.470	0.348	7.95	3.38	1.50	2.57	3.88	1.38	2.6
FC1H-0750B		3/4" BSPP						85.9	38.1	65.3	98.4	35.1	1.2
FC1H-0750S		#12 SAE						3.38	1.50	3.01	4.63	1.38	2.6
FC1H-0750IU		27mm ISO6149						85.9	38.1	76.5	117.5	35.1	1.2
FC1H-1000N	1"	1" NPTF	40 GPM	0.2300	5.250	0.453	10.35	4.87	1.75	3.22	5.00	1.88	5.1
FC1H-1000B		1" BSPP		148.4				123.7	44.5	81.8	127.0	47.8	2.3
FC1H-1000S		#16 SAE		0.3070	5.14			2.25	3.50	5.63	1.88	5.1	
FC1H-1000IU		33mm ISO6149		198.1	130.6			57.2	88.9	142.9	47.8	2.3	
FC1H-1250N	1 1/4"	1 1/4" NPTF	70 GPM	0.2300	5.250	0.855	19.52	5.12	2.25	3.88	5.63	1.88	8.1
FC1H-1250B		1 1/4" BSPP		148.4				130.0	57.2	98.6	142.9	47.8	3.7
FC1H-1250S		#20 SAE		0.3710	5.51			2.75	4.25	6.50	1.88	8.1	
			265 l/m	239.5	8.470	551.6		140.0	69.9	108.0	165.1	47.8	3.7
FC1H-1500N	1 1/2"	1 1/2" NPTF	100 GPM	0.2300	5.250	0.955	21.82	5.37	2.75	4.47	5.63	1.88	10.2
FC1H-1500B		1 1/2" BSPP		148.4				136.4	69.9	113.5	142.9	47.8	4.6
FC1H-1500S		#24 SAE		0.3710	5.64			3.00	5.00	7.25	1.88	10.2	
			380 l/m	239.5	8.470	616.1		143.3	76.2	127.0	184.2	47.8	4.6
FC1H-2000N	2"	2" NPTF	150 GPM	0.2300	5.250	1.046	23.90	5.75	3.50	5.31	6.50	1.88	17.4
FC1H-2000B		2" BSPP		148.4				146.1	88.9	134.9	165.1	47.8	7.9
FC1H-2000S		#32 SAE		0.6010	6.44			4.00	6.13	9.00	1.88	17.4	
			568 l/m	387.7	13.410	674.8		163.6	101.6	155.7	228.6	47.8	7.9

NOTES: (1) Typical flows quoted in U.S. GPM, using 100 SUS Petroleum Based Fluid at 100°F



'FC1H' Physical Parameters

VALVE BODY:	Carbon Steel
POPPET:	Stainless Steel, Hard Seat
SEALING:	Buna-N Standard
WORKING PSI (1/8-1/2"):	5,000 PSI (345 Bar)
WORKING PSI (others):	3,000 PSI (140 Bar)
SAFETY FACTOR:	Minimum 3:1
RETURN FLOW CHECK:	Present
CHECK VALVE SETTING:	5 PSI (0,35 Bar)
TEMP RANGE:	-5°F/195°F (-20°C/90°C)

This valve series is factory sealed and disassembly will destroy the valve and void the warranty. Due to our policy of continual product improvement, specifications may change without notice.

Ordering Codes for 'FC1H' Precision Flow Controls

FC1 H - 1500 U /LHS

MODEL:

M: Brass, to 2000 PSI
H: Steel, to 5000 PSI

NOMINAL SIZE:

Expressed in 1/1000ths inch.
Example: 0375 = 3/8", 1 1/2 = 1500

INLET PORT THREAD:

Standard US/Canada:

N: NPTF
S: SAE ORB

Metric Standard:

B: BSPP

Optional Threads (Call DMIC):

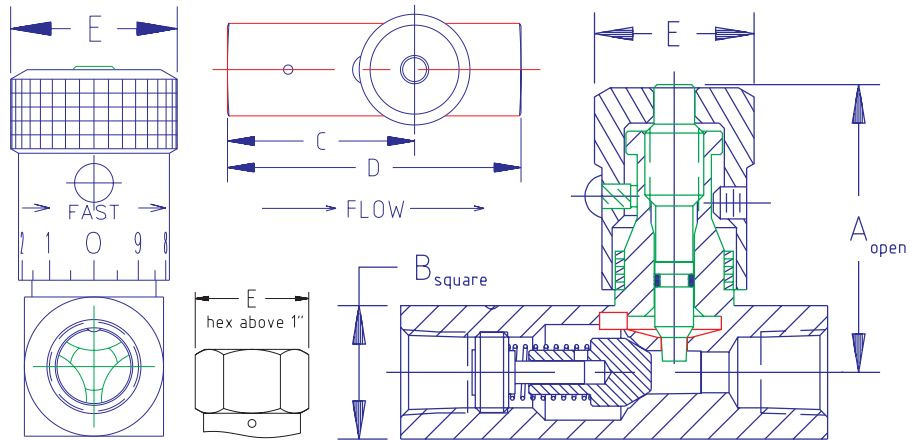
B: BSPP
T: BSPT
IU: ISO6149

EASY ORDER OPTIONS:

/LHS Security (Permanent) Locking Knob
/LH Finger Screw Locking Knob
/FN Fine Metering Needle Option



'FC1H' Dimensions & Flow Curves



FC1H HARD SEAT POPPET

