CS230 Selection Guide

CS230 [ ] t [ ] ggg [ ] v [ ] rrrr [ ] a [ ] ff [ ] s [ ] m [ ] d

[t] Type Number

[A] Elastomer Type

[ggg] Gas

Please contact Helios Technologies for assistance in choosing the correct code for your particular gas.

[013] N_2
[007] H_2

[v] Valve

[C] Normally Closed
[N] No Valve

[rrrr] Full Scale Flow Range

[020L]	20 slm	[150L]	150 slm
[030L]	30 slm	[200L]	200 slm
[050L]	50 slm	[250C]	200 slm
[100L]	100 slm		

[a] Electronic Connectors

[D] DB15 (15 pin)
[R] DB9 (9 pin)

[ff] Inlet and Outlet Fittings

[CC]	Swagelok® 1/4" (F.S. ≤ 60SLM)	[HH]	Swagelok 3/8"
[DD]	Swagelok 8mm (F.S. ≤ 200SLM)	[EE]	VCR® 1/2" male
[GG]	Swagelok 6mm	[QQ]	VCO® 1/2" male
[PP]	Swagelok 1/2"	[XX]	Customized Fittings (please consult [d] for details)
[JJ]	Swagelok 10mm		

[s] Seal Materials

[V] Viton®
[B] Acrylonitrile Butadiene Rubber

[m] Mounting Position

[H] Horizontal
[E] HESD (Horizontal Edge Side Down)
[U] Vertical Inlet Up
[D] Vertical Inlet Down

[d] Description

[S] Customized Requirements

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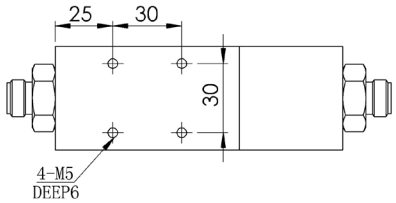
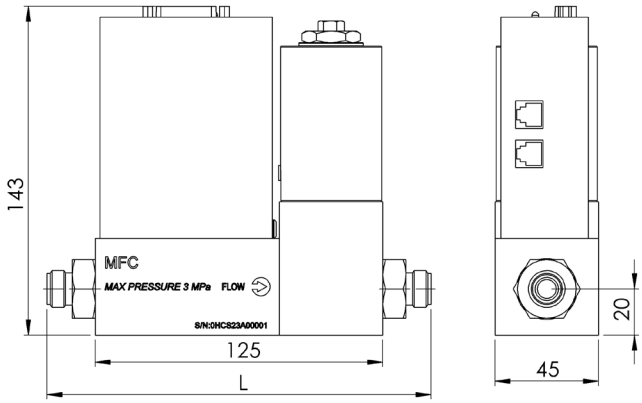
CS230 Digital Mass Flow Controller - High Flow

Model	CS230A MFC	CS230A MFM
Full scale range (N_2)	50, 100, 150, 200, 250, 300 slm	
Accuracy	±1.0% S.P (≥35% F.S.) ±0.35% F.S. (<35% F.S.)	
Linearity	±0.5% F.S.	
Repeatability	± 0.2% F.S.	
Response Time	< 2 sec	
Valve Rest Position	Normally Closed	–
Differential Pressure	0.15~0.35MPa 50 slm ≤Flow (N_2) < 150 slm 0.20~0.35MPa 150 slm ≤Flow (N_2) ≤250 slm 0.25~0.40MPa 250 slm < Flow (N_2) ≤300 slm	<0.02MPa 50 slm ≤Flow (N_2) ≤100 slm <0.05MPa Flow (N_2) >100 slm
Temperature Coefficient	Zero: ≤ ±0.02% F.S./°C Span: ≤ ±0.02% F.S./°C	
Maximum Pressure	3 MPa (435psig)	
Zero Drift	<0.6% F.S. per year without autozero	
Leak Integrity	$<1\times10^{-9}$ atm·cc/ sec He (1×10^{-9} Pa·m3/sec He)	
Wetted Materials	Viton®, Neoprene	
Operation Temperature	(0 ~ 50) °C	
Input Signal	Digital: RS-485/DeviceNet™ Analog: (0 ~ 5)VDC (default)/ (4 ~ 20) mA	–
Output Signal	Digital: RS-485/DeviceNet Analog: (0 ~ 5)VDC (default)/ (4 ~ 20) m	
Power Supply	±8 ~ ±16 VDC or +14 ~ +28 VDC (400 mA)	
Electronic Connector	D sub 9 pins male, D sub 15 pins male, DeviceNet male	
Fittings	Swagelok® 6mm, Swagelok 1/4", Swagelok 8mm, Swagelok 10mm, Swagelok 3/8"', Swagelok 1/2", VCR® 1/2" male, VCO® 1/2" male	
Weight	2.6 kg	1.5 kg



Fitting Type / MFC Length	Swagelok Φ6; Swagelok Φ8 Swagelok Φ10; Swagelok1/4; Swagelok3/8; Swagelok1/2;	VCR1/2 Male
L (mm)	167	182



Helios Technologies offers a full range of options to meet your standard or custom specifications. Contact Helios Technologies to discuss your application and specific requirements.

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