

# CS200 Selection Guide

CS200 [ ] t [ ] ggg [ ] v [ ] rrrr [ ] a [ ] ff [ ] s [ ] m [ ] d

## [t] Type Number

[A] Elastomer type  
 [C] Metal type, stainless steel VV, 10Ra  
 [D] Metal type

## [ggg] Gas

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

[0013] N<sub>2</sub>  
 [007] H<sub>2</sub>  
 [000] Mixture Gases (please consult [d] for details)

## [v] Valve

[O] Normally Open  
 [C] Normally Closed  
 [N] No Valve

## [rrrr] Full Scale Flow Range

[002C] 2 sccm (available for type C,D only)	[100C] 100 sccm	[005L] 5 slm
[003C] 3 sccm (available for type C,D only)	[200C] 200 sccm	[010L] 10 slm
[005C] 5 sccm	[300C] 300 sccm	[020L] 20 slm
[010C] 10 sccm	[500C] 500 sccm	[030L] 30 slm
[020C] 20 sccm	[001L] 1 slm	[050L] 50 slm
[030C] 30 sccm	[002L] 2 slm	[000C] Customized Full Scale, (please consult [d] for details)
[050C] 50 sccm	[003L] 3 slm	

## [a] Electronic Connector

[R] DB9 (9 pin)	[D] DB15 (15 pin)
[X] DeviceNet®	[Y] DeviceNet + Analog

## [ff] Inlet and Outlet Fittings

[AA] Swagelok® 3mm	[SC] IGS C seal (available for type C,D only)
[BB] Swagelok 1/8" (available for type A only)	[MM] VCR® 1/4"
[GG] Swagelok 6mm	[SW] IGS W seal (available for type C,D only)
[JJ] Swagelok 10mm (available for type A only)	[XX] Customized Fittings
[CC] Swagelok 1/4"	(please consult [d] for details)

## [s] Seal Materials

[V] Viton® (available for type A only)  
 [N] Neoprene (available for type A, especially for NH<sub>3</sub> only)  
 [M] Metal (available for type C,D only)

## [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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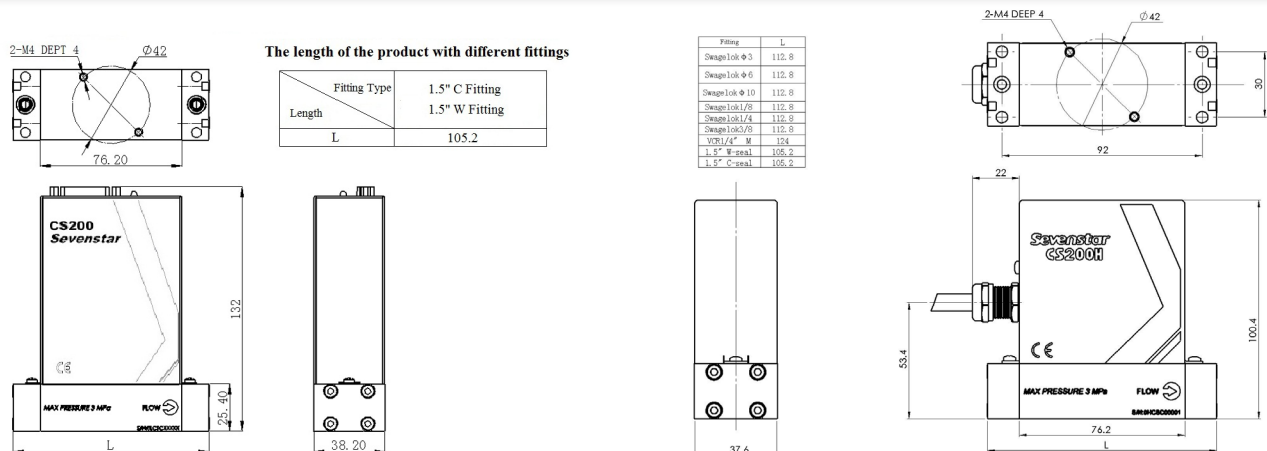
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# CS200 Digital Mass Flow Controller

## CS200H Digital Mass Flow Controller - High Temperature

Model	CS200			
	Type	A	C	D
Full scale range (N <sub>2</sub> )	1 sccm - 50 slm	1 sccm - 30 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		≤1 sec.		
Valve Rest Position		Normally Closed or Normally Open		
Differential Pressure		(0.05~0.35) MPa 7.5 slm (0.1~ 0.275) MPa(<30 slm)	(0.07-0.35) MPa (≤ 15 slm) (0.17~0.275) MPa (<50 slm)	
Temperature Coefficient	Zero: ≤ ±0.05% F.S./°C Span: ≤ ±0.1% F.S./°C (≤30 slm) Span: ≤ ±0.2% F.S./°C (>30 slm)	Zero: ≤ ±0.02% F.S./°C Span: ≤ ±0.05% F.S./°C		
Maximum Pressure	3MPa (435 psig)			
Zero Drift	<0.6% F.S. per year without autozero			
Leak Integrity	1x10 <sup>-9</sup> atm-cc/ sec He 1·10 <sup>-10</sup> Pa·m <sup>3</sup> / sec He	1x10 <sup>-10</sup> atm-cc/ sec He 1·10 <sup>-11</sup> Pa·m <sup>3</sup> / sec He		
Seal Materials	Viton®/Neoprene	Metal		
Surface Chemistry (EP only)	-	CrO thickness >20 Angstroms	-	Cr/Fe ratio > 2.0; CrO thickness >20 Angstroms
Surface Finish (Ra)	25Ra	10Ra	25Ra	10Ra
Operation Temperature	(0~50)°C			MFC/MFM: (90-120)° C; electronic box: (0-50)° C
Input Signal	Digital: RS485(default) / DeviceNet™ Analog: (0~5)VDC(default) / (4-20)mA			
Output Signal	Digital: RS485/DeviceNet™ Analog: (0 ~ 5)VDC or (4 ~ 20) mA			
Power Supply	±11 ~ ±16 VDC or +11 ~ +28 VDC (400mA)			
Electronic Connector	D sub 9 pins male, D sub 15 pins male, DeviceNet™ male			
Fittings	VCR® 1/4" male, Swagelok® 3mm, Swagelok 6mm, Swagelok 10mm, Swagelok 1/8", Swagelok 1/4"	VCR 1/4" male, Swagelok 6mm, Swagelok 1/4", W-Seal; C-Seal		
Weight	1 kg	0.8 kg	1.2 kg with valve, 1 kg without valve	



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