

CS200 / CS200H

CS200 Digital Mass Flow Controller CS200H Digital Mass Flow Controller - High Temperature



FEATURES

- **High accuracy** accurate to $\pm 1.0\%$ S.P ($\geq 35\%$ F.S.), $\pm 0.35\%$ F.S. ($< 35\%$ F.S.)
- **Fast Response** less than ≤ 1 sec
- **Excellent sensor stability** zero drift is less than 0.6% F.S./year
- **Low Temperature Coefficient**
Zero: $\leq \pm 0.02\%$ F.S./ $^{\circ}\text{C}$
Span: $\leq \pm 0.05\%$ F.S./ $^{\circ}\text{C}$
- **High Purity** assembled in a Class 100 ultra clean room, in accordance with SEMI and ISO 9001 standards
- **Multiple communication interfaces** RS485, Profibus[®] and DeviceNet[™] communication
- **Multi gas and Multi range** User can change gas convert factor, full scale of digital interface, and can rerange from 30% to 100% F.S.
- **High Temperature Tolerance (CS200H)** rated for temperatures up to 120°C

CS200 digital mass flow controllers incorporate the latest thermal technology for high accuracy, fast response time and low zero drift. Multi-gas and multi-range, auto-zero, alarm, soft start and delay functions are available. The CS200 MFC offers reliable performance and long-term application flexibility.

Ideal for high temperature environments, CS200H digital mass flow controllers offer the accuracy and reliability of the CS200, and are rated for temperatures up to 120°C .

CS200 and CS200H mass flow controllers are engineered, sold, serviced and supported in the U.S.

by Helios Technologies, Inc., and manufactured

by Sevenstar.



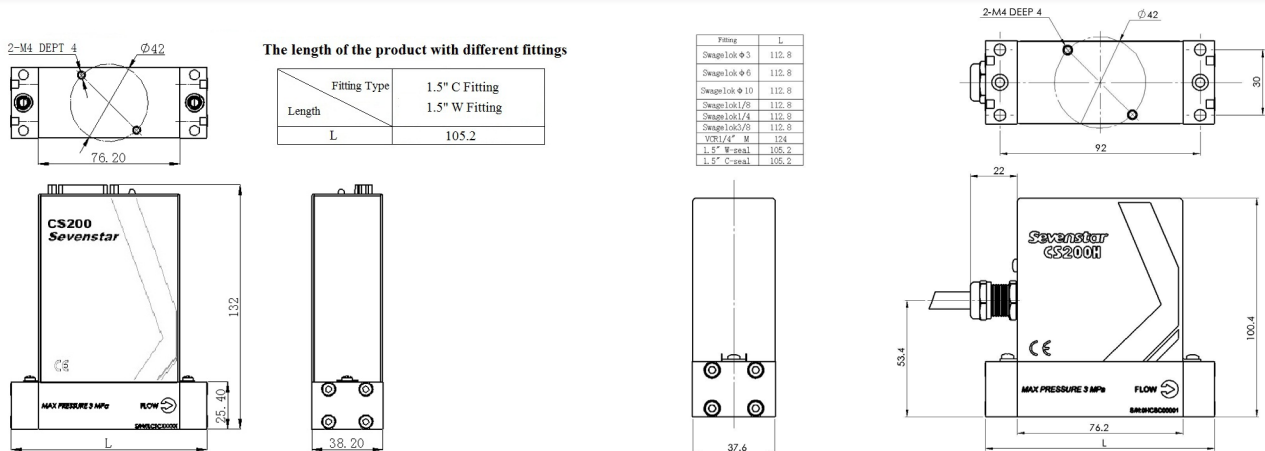
HELIOS TECHNOLOGIES, INC.

15032 Red Hill Ave, Suite C
Tustin, CA 92780 (714) 258-1777
heliostechinc.com • sales@heliostechinc.com

CS200 Digital Mass Flow Controller

CS200H Digital Mass Flow Controller - High Temperature

Model	CS200			
Type	A	C	D	H
Full scale range (N ₂)	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 ⁻⁹ atm-cc/ sec He 1·10 ⁻¹⁰ Pa·m ³ / sec He		1x10 ⁻¹⁰ atm-cc/ sec He 1·10 ⁻¹¹ Pa·m ³ / 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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 Profibus® is a registered trademark of Profibus International. VCR® and Swagelok® are registered trademarks of Swagelok® Company.



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