

CMS0200

Gas Mass Flow Meter



The CMS0200 is a high-reliability gas mass flow meter using a newly developed Yamatake micro-flow sensor, which is a thermal-type speed sensor unit.

The combination of an ultra-miniature, precision sensor and high-flow circuit design technology has enabled high-accuracy and wide rangeability, at a low cost.

SENSORS

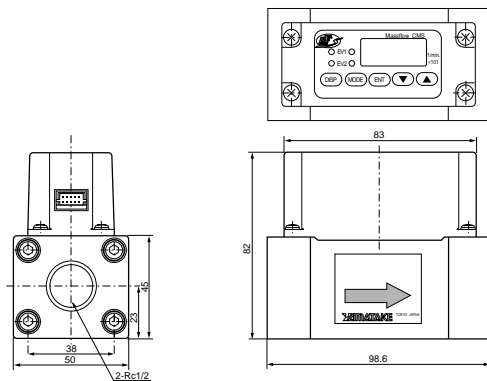
Specifications

Applicable gas	Air / Nitrogen, Argon, CO ₂ , Oxygen, City gas 13A (LNG), Methane 100%, Propane 100%, and Butane 100%.	Please note that corrosive components such as chlorine, acid and sulfuric acid must not be included in these gases
Flow range	200L/min (standard) 'standard' indicates the standard calibration conditions (20°C, 1 atmospheric pressure)	
Measurement accuracy (RD: Read value)	± 5%RD ± 1 digit 20 to 200L/min (standard) (25°C indicates ambient temperature at calibration)	
Pressure range	0 to 0.5MPa	
Pressure resistance	1.0MPa	
Sampling cycle	200ms ± 10%	
Output signal	Instantaneous flow rate output: 0 to 5Vdc (allowable load resistance -1kΩ min.) Event output: Open collector x 2 points (rating: 50mA) (indicator model only)	
Indicator	7-segment LED, 4-digits / Instantaneous flow and integrated flow are selectable	
Rated voltage	12 to 24Vdc	
Power supply range	10.8 to 26.4Vdc	
Current consumption	100mA max.	
Ambient temperature	0 to 50°C (Guaranteed accuracy range is from 10 to 35°C)	
Ambient humidity	10 to 90%RH (no condensation allowed)	
Connection	Rc 1/4 thread (female)	
Weight	Model without indicator: Approx. 1380g Model with indicator: Approx. 1400g	

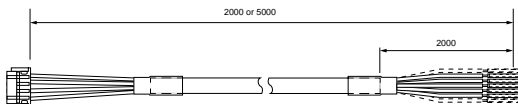
Dimensions

(unit:mm)

• CMS0200



• Harness



Selection Guide

Example: CMS0200ASRN000000

Table	Basic Model No.	Selection						Description	
		CMS	↓	↓	↓	↓	↓		
I	Basic Model No.	CMS	↓	↓	↓	↓	↓	Gas mass flow meter	
II	Flow rate range	0200	○	○	○	○	○	0 to 200L/min (standard)	
III	Indication	A	○	○	-	-	-	Without indicator / instantaneous flow output	
		B	-	-	○	○	-	With indicator / instantaneous flow output / integration function + event output, integration pulse output + integration reset input + gas changeover function	
		F	-	-	-	-	○	○	(ditto) + gas type user setting function without gas changeover function
IV	Material	S	○	○	○	○	○	SUS303	
V	Connection	R	○	○	○	○	○	Rc 1/2	
VI	Gas type	N	○	-	○	-	-	-	Air, nitrogen
		C	○	-	-	-	-	-	CO ₂
		S	-	○	-	○	-	-	Oxygen
		G	○	-	-	-	-	-	City gas 13A (LNG)
		L	○	-	-	-	-	-	Propane 100%
		F	-	-	-	-	○	-	Gas type user setting function (ditto) for oxygen or oxygen-mixed gas used
VII	Output	0	○	○	○	○	○	0 to 5Vdc	
VIII	Option (1)	0	○	○	○	○	○	None	
IX	Option (2)	0	○	○	○	○	○	None	
X	Option (3)	0	○	-	○	-	○	-	None
		1	○	○	○	○	○	○	Oil elimination process used on gas passage material
XI	Option (4)	0	○	○	○	○	○	○	None
		D	○	○	○	○	○	○	With test data
XII	Design code	0	○	○	○	○	○	○	Product design

Optional Parts

Part No.	Description
81446594-001	Harness length 2m for a model without indicator
81446594-002	Harness length 5m for a model without indicator
81446594-005	Harness length 2m for a model with indicator
81446594-006	Harness length 5m for a model with indicator