

# CMS1500

## Gas Mass Flowmeter (Aluminum)



The CMS1500 is a highly reliable gas mass flowmeter that uses the Yamatake  $\mu$ F (Micro Flow) sensor as its sensing element. The  $\mu$ F sensor is a MEMS thermal mass-flow sensor capable of measuring ultra-low flow rates. The integration of the  $\mu$ F sensor and advanced channel design technology has achieved high accuracy and high rangeability at a low cost.

### Specifications

Compatible gases	Air, nitrogen, argon, carbon dioxide (CO <sub>2</sub> ). Gas must be dry and without corrosive components (chlorine, sulfur, acid, etc.). It must also be clean, without dust or oil mist.
Flow rate range	0 to 1500L/min (standard) "Standard" refers to the flow rate adjusted for 20°C, 101.325kPa (1 atmosphere).
Measurement accuracy	1/10 to 1/1 of flow rate range: $\pm 5\%$ rdg. 1/50 to 1/10 of flow rate range: $\pm 1\%$ FS % rdg.: percentage of indicated reading. % FS: percentage of full scale.
Operating pressure	0 to 0.5MPa
Sampling cycle	100ms $\pm 10\%$
Power	12 to 24Vdc
Current consumption	100mA max.
Mass	Approx. 3000g

### ● Gas Type and Maximum Control Flow Rate

The maximum control flow rate varies according to the gas type.

Gas type	Flow rate (L/min (standard))
Air/nitrogen	1500
Argon	1500
Carbon dioxide (CO <sub>2</sub> )	900

### Selection Guide Example: CMS1500BARN210000

Segment	Model No. selection		Description
I	Basic No.	CMS	Gas mass flowmeter
II	Flow rate range	1500	0 to 1500L/min (standard)
III	Type	B	Integrated display
IV	Material	A	Aluminium
V	Connection size	R	Rc 1"
VI	Gas type	N	Air, nitrogen, argon and CO <sub>2</sub>
VII	Output	2	4–20mA, 0–5V or 1–5V (selectable)
VIII	Option 1	1	RS-485 communications
IX	Option 2	0	None
X	Option 3	0	None
XI	Option 4	0	None
		D	With inspection data
		Y	With traceability certification
XII	Design code	0	Product version

### Accessories (sold separately)

Model No.	Description
81446594-007	Harness for RS-485 communications (2m long)
81446594-008	Harness for RS-485 communications (5m long)

### Dimensions

(Unit: mm)

