

Standard Mass Flow Controller

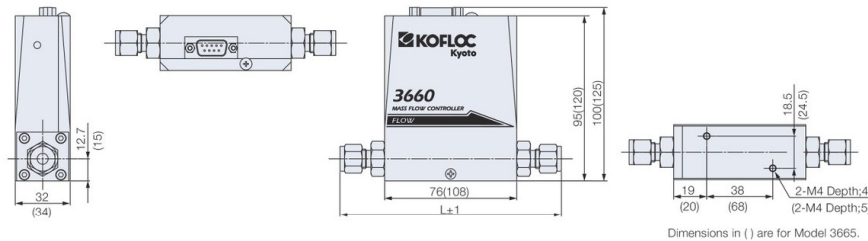
MODEL 3660 SERIESApplicable fluids **Gas** N₂, Air, H₂, He, Ar, O₂, CO₂, etc.Max. flow rate **Gas** 10SCCM to 100SLM

Accuracy ±1 to 1.5%F.S.

- Capable of wide flow range
(from F.S. 10SCCM to F.S. 100SLM in N₂ equivalent)



Dimensions



3660	
Fittings	Dimension L (mm)
1/4SWL	127.4
1/8SWL	122.8
1/4VCR	123.8
Rc1/4	102

3665	
Fittings	Dimension L (mm)
3/8SWL	162.4
1/2SWL	166.4
1/2VCR	163.4
Rc3/8	144

Dimensions in () are for Model 3665.

Standard Specifications

MODEL	3660	3665
Sensor type	Thermal sensor	
Valve type	Proportional solenoid valve (normally closed)	
Applicable gas	N ₂ , Air, H ₂ , He, Ar, O ₂ , CO ₂ , etc.	
Full-scale flow rate (N ₂ equivalent)	10SCCM to 20SLM	30 to 100SLM
Control range	2 to 100%F.S.	5 to 100%F.S.
Response	Within 2sec. (within ±2% F.S.)	Within 3sec. (within ±2% F.S.)
Accuracy	±1%F.S. (25°C)	±1.5%F.S. (25°C)
Temperature coefficient	±0.1%F.S./°C (15 to 35°C)	±0.2%F.S./°C (15 to 35°C)
Repeatability	±0.5%F.S.	
Operating differential pressure	F.S. ≤ 5SLM 50 to 300kPa, F.S. > 5SLM 100 to 300kPa	F.S. ≤ 50SLM 150 to 300kPa, F.S. > 50SLM 200 to 300kPa
Max. inlet pressure	500kPa(G)	
Proof pressure	1MPa(G)	
He Leak rate	≤ 1 × 10 ⁻⁶ Pa·m ³ /s	
Allowable ambient temperature	5 to 45°C	
Allowable storage temperature	-10 to 60°C	
Allowable ambient humidity	10%RH to 90%RH (no dew condensation)	
Materials of parts in contact with gases	SUS316L, SUS316, Magnetic stainless steel, FKM (option: NBR or CR)	
Electrical connection	D-sub 9 pins, KFC standard (compliant with the SEMI standard)	
Flow rate setting signal	0 to 5VDC (Input impedance: 1MΩ or more)	
Flow rate output signal	0 to 5VDC (Load resistance: 250kΩ or more)	
Power supply	+15VDC (±5%) 100mA, -15VDC (±5%) 250mA	
Fittings	Standard: 1/4SWL type, Option: 1/8SWL type, 1/4VCR type, Rc1/4	Standard: 3/8SWL type, Option: 1/2SWL type, 1/2VCR type, Rc3/8
Weight	Approx. 1,000g	Approx. 1,500g

* Use with a dry and clean gas containing no corrosive components, dust or mist. * Accuracy assurance with calibration gas.

* He leak rate does not include permeation. Leakage (reference value) by long-time permeation is 1 × 10⁻⁶Pa·m³/sec. or less.

Ordering

MODEL	Fittings	Fluid	Full-scale flow rate	Calibration temperature	Option	Supply pressure	Outlet pressure
3660	1/4SWL type				NBR: NBR seal		
3665	1/8SWL type				CR: Chloroprene seal		
	1/4VCR type				MP: 300kPa to 600kPa		
	Rc1/4				LP: Low differential pressure		
	3/8SWL type						
	1/2SWL type						
	1/2VCR type						
	Rc3/8						

3660	1/4SW	N ₂	5SLM	20°C			
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* For MP option (100SCCM or more in N₂ equivalent) and LP option (20SLM or less in N₂ equivalent), specify specific pressure conditions.

* MP option is limited to the use under the specified pressure conditions only.

* 'SWL type' and 'VCR type' are shortened to SW and VCR in Ordering code.

Wiring connection

- D-sub 9 pins, KFC standard pin layout (see Fig. 6 on Page 15)