

Digital Mass Flow Meter with Display

# EXE-FLOW™ MODEL EX-700R SERIES

EXE-FLOW™ was commercialized “Exact measurement” and “Excellent function as a concept. This is covered from small flow rate (F.S.10sccm) to large flow rate (F.S.500slm) and the 14 flow ranges are ready as a standard stock.



A

Mass Flow Meters and Controllers

MODEL EX-700R SERIES



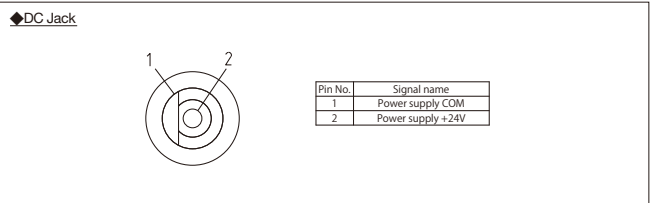
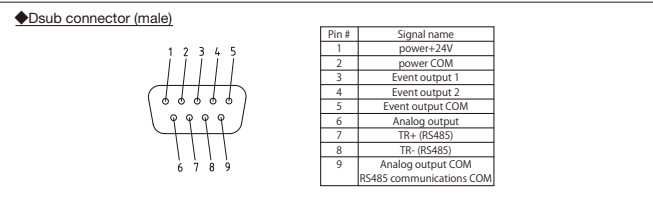
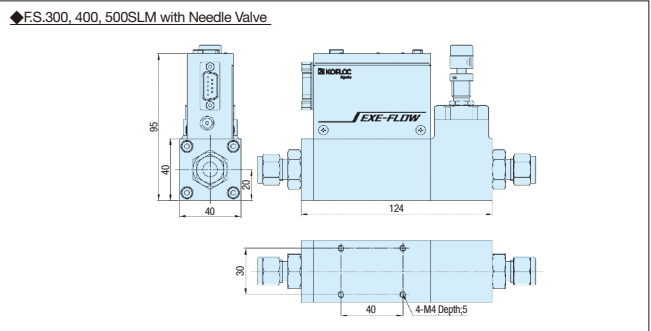
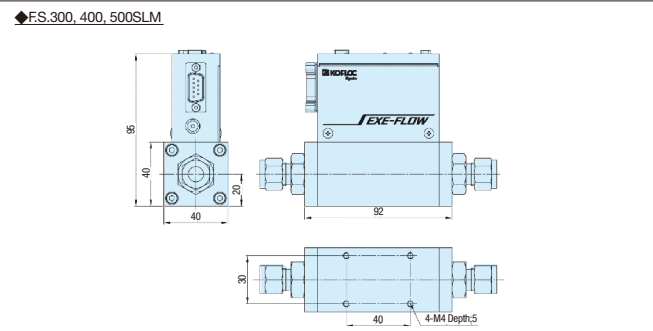
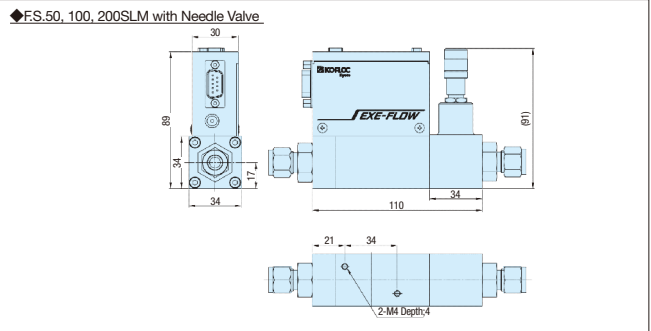
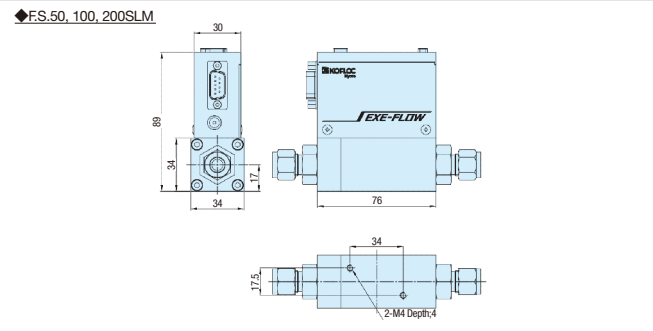
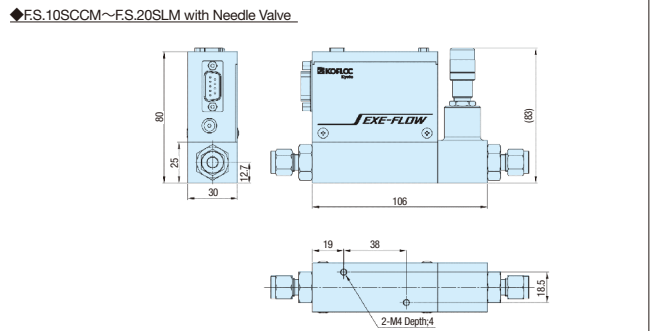
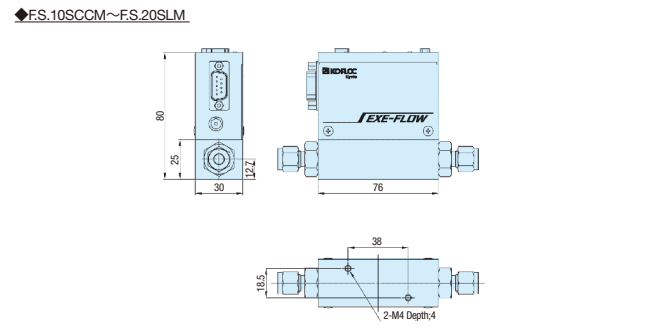
- New developed high grade sensor.
- Compact and lightweight, 24VDC drive.
- RS485 communication.
- Easy operation with display.
  - Instant and totalized flow rate indication
  - Change of gas type
  - Conversion factor setting
  - Upper or lower alarm setting
  - Change of the analog output, etc.

### Standard Specifications

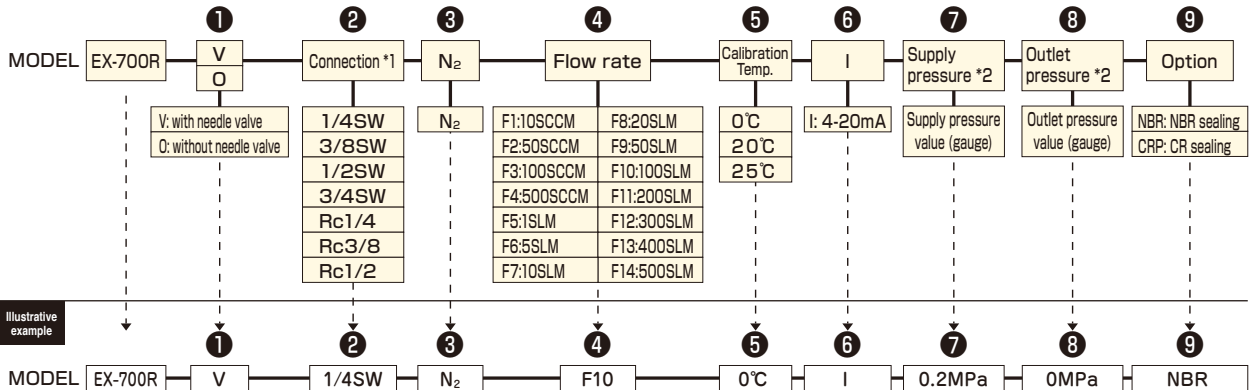
<b>Flow range (N<sub>2</sub> conversion)</b>		F.S. 10 / 50 / 100 / 500SCCM 1 / 5 / 10 / 20SLM	F.S. 50 / 100 / 200SLM	F.S. 300 / 400 / 500SLM
<b>Accuracy <sup>*1</sup></b>		±1%F.S.		
<b>Applicable gas <sup>*2</sup></b>		N <sub>2</sub> (Air, H <sub>2</sub> , He, Ar, O <sub>2</sub> , CO <sub>2</sub> ,CH <sub>4</sub> /By N <sub>2</sub> conversion)	N <sub>2</sub> (Air, Ar/ By N <sub>2</sub> conversion)	N <sub>2</sub> (Air/ By N <sub>2</sub> conversion)
<b>Temperature</b>	<b>Accuracy guarantee temperature</b>	15~35°C		
	<b>Operating temperature</b>	5~50°C		
	<b>Storage temperature</b>	-10~60°C		
<b>Allowable operating humidity</b>		10~90%RH (no condensation)		
<b>Proof pressure</b>		1MPa(G)		
<b>Fitting (Standard)</b>		1/4SW	3/8SW	1/2SW
<b>Materials of parts in contact with gases</b>		SUS316, SUS316L, PTFE, PCTFE(only 300-500SLM), FKM (op. : NBR, CR)		
<b>Power supply</b>		24VDC(±10%), 100mA or lower		
<b>Flow rate indication</b>	<b>Display</b>	4-digit 7-segment LED (Zero blanking)		
	<b>Instantaneous flow rate indication update cycle</b>	25, 50, 100, 200, 500, 1000msec (selectable)		
	<b>Low cut function</b>	Indication of a value below 1% F.S. settable to "0"		
	<b>Indication range</b>	When the low cut function is not used; from approx. -10% F.S. to approx. 125% F.S. (indication limiter flashing)		
	<b>Integrated flow rate indication range <sup>*3</sup></b>	8-digit indication (Max. 99,999,999, indication limiter flashing) The units of indication are the same as the instantaneous flow rate.		
<b>Digital communication</b>		RS485(MODBUS RTU) ,ID:1~247		
<b>External output</b>	<b>Number of outputs</b>	2 points (Each output selected and set to instantaneous flow rate upper limit, lower limit, upper/lower limit or integrated flow rate reach. 1 point may be integrating pulse.) Inversion of outputs is possible.		
	<b>Output method</b>	NPN open collector (Max. rating: 30 VDC, 50 mA)		
	<b>Integrating pulse output rate</b>	1%F.S.~100%F.S. / pulse, pulse width: approx. 50ms		
	<b>Alarm indication</b>	LED lamps (OUT1, OUT2) turning on		
	<b>Analog output</b>	Standard :4-20mA (500Ω or below) Switchable:1-5V or 0-5V (10kΩ or over)		
<b>Weight</b>		Approx. 600g	Approx. 700g	Approx. 1000g
<b>Needle valve part</b>	<b>Flow adjust knob turning</b>	Approx. 12 turns		
	<b>Materials of parts in contact with gases</b>	SUS316, PTFE, FKM(op. NBR, CR)		

\*1. The accuracy is guaranteed for nitrogen gas.  
 \*2. The full scale of the selected gas is the same as the full scale of N<sub>2</sub>.  
 \*3. The indication of integrated flow rates is for reference. It is held when the power is turned off.  
 \*4. Analog output is switchable by indicator.

**Dimensions**



**Ordering**



\*1: 3/8SW for over 50SLM and 1/2SW for over 300SLM are required.

\*2: In case of the "with precision needle valve", the supply pressure and outlet pressure values are required.

**Accessory**

- Power supply adaptor: model PSK-83CE (cable length : Approx.1500mm)
- Electrical cable: model CP-EX-700-CF※ (※Cable length: -1M, -3M, -5M)

In case of the use at the place with strong noise influence, it is recommended to assemble the ferrite core with the power supply adaptor.