

Mass flow Controller & Meter Comparison



Model	CRITERION D500	SEC-Z700X	SEC-Z500X Series
Product Features	Range topping accuracy & repeatability. Widest dynamic control range of 0.2% to 100%. Self diagnostics. Programmable, pressure insensitive mass flow module	High accuracy & repeatability. Programmable, pressure insensitive mass flow module	Widest used programable mass flow controller and meter
Sensor Type	Pressure-based	Thermal	Thermal
Accuracy	+/- 1% S.P. (>5% F.S.)	+/- 1% S.P. (> 25% F.S.)	+/- 1% S.P. (> 25% F.S.)
Power Supply	+/-15VDC / 24VDC *1	+/- 15VDC	+/- 15VDC / 24VDC *1
Control Interface	Analog (0 - 5 VDC) / Digital (RS-485 F-NET) DeviceNET™ EtherCAT®	Analog (0 - 5 VDC) / Digital (RS-485 F-NET) DeviceNET™	Analog (0 - 5 VDC) / Digital (RS-485 F-NET) DeviceNET™ EtherCAT®
Pressure Reading	Yes	Yes	No
Multi Gas/Multi Range	Multi Gas/Multi Range/ Multi Pressure	Multi Gas/Multi Range	Multi Gas/Multi Range
Self Diagnostics	Yes	No	No
Fitting	VCR, IGS	VCR, IGS	Swagelok, VCR, IGS
Seal Material	Metal	Metal	Metal or Elastomer
Valve Type	Piezo electric - Normally closed	Piezo electric - normally closed and normally open	Piezo electric - normally closed and normally open
Mounting	Mount-free	Mount-free	Mount-free
Full Scale Flow Rate	10 SCCM - 50 SLM	10 SCCM - 200 SLM	10 SCCM - 500 SLM
Temperature	15 - 45°C	5 - 50°C	5 - 50°C

*1 24VDC is available for DeviceNet™ and EtherCAT®

*2 24 VDC is available for DeviceNet™, CC-Link®, EtherCAT® and PROFIBUS™ models.

This table is a guideline only. Some models vary. Please see product specification sheet for more details.

Mass flow Controller & Meter Comparison



Model	SEC-N100 Series	SEC-E Series	SEC-8000 F/D/E Series
Product Features	Value line programmable mass flow controller and meter	Value line single gas mass flow controller and meter	High temperature mass flow controller
Sensor Type	Thermal	Thermal	Thermal
Accuracy	+/- 1% S.P. (> 30% F.S.)	+/- 1% F.S.	+/- 1% S.P. (> 30% F.S.)
Power Supply	+/- 15V/24VDC *2	+/- 15VDC	+/- 15VDC / 24VDC *1
Control Interface	Analog (0 - 5 VDC) / Digital (RS-485 F-NET) DeviceNET™ PROFIBUS™ CC-Link® EtherCAT®	Analog (0 - 5 VDC)	Analog (0 - 5 VDC) / Digital (RS-485 F-NET) DeviceNET™ EtherCAT®
Pressure Reading	No	No	No
MGMR	Multi Gas/Multi Range	No	No
Self Diagnostic	No	No	No
Fitting	Swagelok, VCR	Swagelok	Swagelok, VCR
Seal Material	Metal or Elastomer	Elastomer	Metal
Valve Type	Solenoid - Normally closed	Solenoid - Normally closed	Piezo electric - Normally closed and normally open
Mounting Orientation	Mount-free	No	Mount-free
Full Scale Flow Rate	10 SCCM - 1000 SLM	10 SCM - 200 SLM	5 SCCM - 150 SLM
Temperature	5 - 50°C	5 - 50°C	15 - 120°C

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*2 24 VDC is available for DeviceNet™, CC-Link®, EtherCAT® and PROFIBUS™ models.

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