

Mass flow Controller & Meter Comparison



| Model | CRITERION D500 Series | SEC-Z700X Series | 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 programmable 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 | +/- 15VDC / 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 SCCM - 200 SLM | 5 SCCM - 150 SLM |
| Temperature | 5 - 50°C | 5 - 50°C | 15 - 120°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 | S600 Series | S48 Series | MF-C Series |
|-----------------------------|--|--|---|
| Product Features | Value line single gas mass flow controller and meter with reasonable price | Value line single gas mass flow controller and meter with reasonable price | Compact Mass Flow Controller with low cost |
| Sensor Type | Thermal | Thermal | Thermal |
| Accuracy | +/- 1% F.S. | +/- 1% F.S. | +/- 3% F.S. |
| Power Supply | +/- 15VDC / 24VDC | +/- 15VDC / 24VDC | 24VDC |
| Control Interface | Digital (RS-485 F-NET) PROFIBUS™ | Analog (0 - 5 VDC) | Analog (0 - 5 VDC) |
| Pressure Reading | No | No | No |
| MGMR | No | No | No |
| Self Diagnostic | No | No | No |
| Fitting | Swagelok, VCR | Swagelok, VCR | φ6 one touch *Resin φ8 one touch *Resin Rc ¼" * stainless ¼" inch bite type *stainless |
| Seal Material | Metal or Elastomer | Metal or Elastomer | Elastomer/ Stainless/Almina |
| Valve Type | Solenoid - Normally closed | Solenoid - Normally closed | Solenoid - Normally closed |
| Mounting Orientation | Mount-free | Mount-free | Mount-free |
| Full Scale Flow Rate | 10 SCCM - 200 SLM | 10 SCCM - 200 SLM | 10 SCCM - 100 SLM |
| Temperature | 5 - 45°C | 5 - 50°C | 0 - 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.