

SLA5810/20/40 SLAMF10/20 Series

Elastomer Sealed, Digital, Upstream, Downstream, and Remote Transducer Pressure Controllers

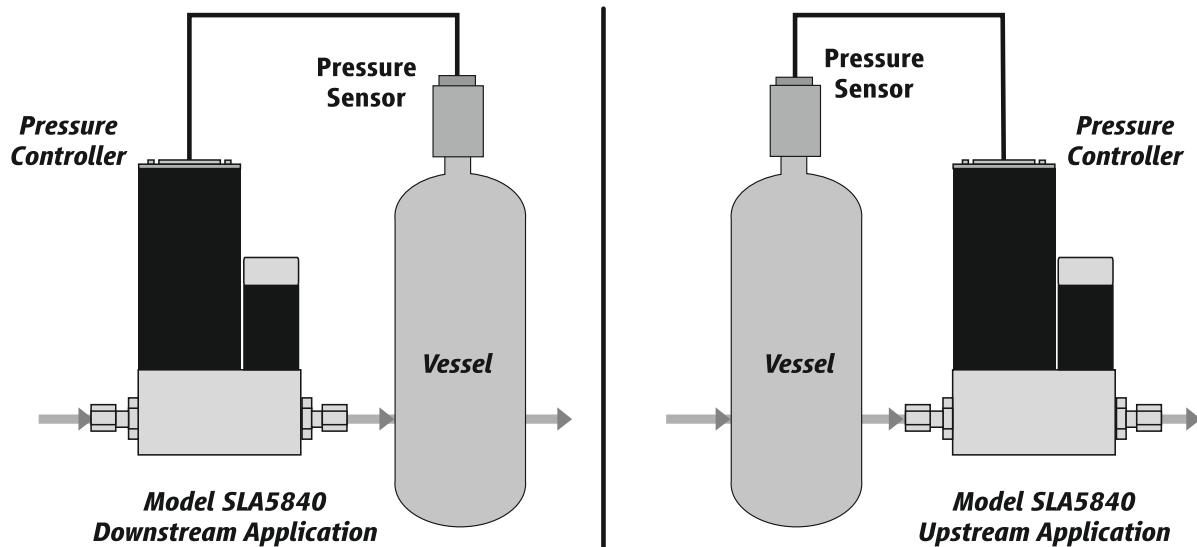
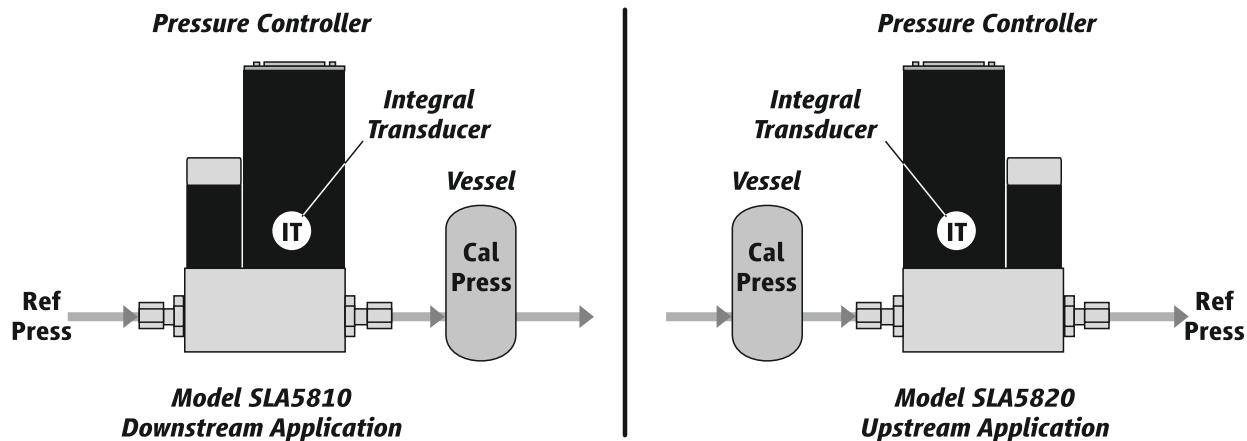
The SLA Series pressure controllers and pressure controlling flowmeters have gained broad acceptance as the standard for accuracy, stability and reliability. Based on the core control technology present in our industry-leading thermal mass flow controllers, SLA pressure controllers are able to control the pressure of a gas based on a set point signal by replacing the thermal mass flow sensor with a pressure sensor. They have a wide pressure measurement and control range and are suitable for a broad range of operating conditions making them well suited for applications in thin film processes, chemical and petrochemical research, laboratory, analytical, fuel cell and life sciences among others.



| Features | Benefits |
|--|---|
| Closed Loop Control | Eliminates droop & hysteresis associated with traditional mechanical spring diaphragm pressure regulators |
| User Accessible Service Port | Simplified installation, start-up, troubleshooting and access to diagnostics provides maximum uptime |
| Wide Pressure Range Capabilities | Ability to control up to 4500 psig, giving it one of the widest pressure ranges on the market today |
| Advanced Diagnostics | Ensures device is operating within user specified limits for high process yield and maximum uptime |
| Superior Valve Technology | Minimum leak-by, maximum turndown, fast response reduces overall gas panel cost and increases throughput |
| Adaptable Mechanical Configurations | Easily retrofit to existing systems |
| Primary Standard Calibration Systems | Ensures measurement accuracy is traceable to international standards |
| Simple Modular Design and Reducing Total Cost of Ownership | Easy-to-service elastomer sealed design provides options for factory or field service maximizing uptime |
| IP66 and Hazardous Area Enclosure | Available on SLAMF for hosedown, washdown & hazardous area applications |
| Hazardous Area Approvals | Designed to operate in non-incendive (Division 2/Zone 2) environments |

Flexible Pressure Control Capabilities

SLA Series pressure controllers can be built for both upstream pressure control and downstream pressure control. These designations are determined by the location of the vessel where the pressure is being controlled. Our upstream pressure controllers can also be considered back pressure regulators, and our downstream pressure controllers can also be considered pressure regulators. In addition, a remote transducer configuration can be used to combine the benefits of pressure control and flow measurement.



With the pressure controller upstream of the vessel, the inlet of the pressure controller can be at atmospheric gas pressure or at the vapor pressure of a liquid source. The flow in this situation is usually determined by the characteristics of a vacuum pump.

When the controller is placed downstream of the pressure vessel, the flow is usually determined by a mass flow controller in the line upstream of the vessel.

Product Specifications

Flow Ranges and Pressure Ratings:

| Pressure Controller Model | Pressure Controller Model | Flow Ranges N ₂ Eq. Ratings | | Minimum Full Scale Pressure | Maximum Full Scale Pressure | PED Module H Category |
|---------------------------|--|--|-----------------------|-----------------------------|--|-----------------------|
| | | Min. F.S. | Max. F.S. | Standard | Standard | |
| SLA5810/SLAMF10 | Downstream (Pressure Regulator) | 0.003 0.1 | 50 ¹ 10 | 1 psi 1500 psi | 1500 psia / 103 bara 4500 psia / 310 bara | SEP |
| SLA5820/SLAMF20 | Upstream (Back Pressure Regulator) | 0.003 0.1 | 50 ¹ 10 | 1 psi 1500 psi | 1500 psia / 103 bara 4500 psia / 310 bara | SEP |
| SLA5840 | Remote Transducer Upstream & Downstream | 0.003 0.1 | 50 10 | 10 psi 1500 psi | 1500 psia / 103 bara 4500 psia / 310 bara | SEP |

¹ Please see sizing tool for flow limitations < 10 psi F.S. pressure

| | | SLA58510/20 & SLAMF10/20 | SLA5840 |
|--|--|---|---|
| Performance | | | |
| Pressure Accuracy (Including linearity and Hysteresis) | | ±0.25% of Transducer F.S., F.S. > 300 psia ±0.12% of Transducer F.S., F.S. ≤ 300 psia | Dependent on Remote Pressure Transducer |
| Flow Accuracy (N ₂ eq.) | | N/A | ±0.9% of S.P. (20 - 100% F.S.) ±0.18% of F.S. (2 - 20% F.S., 1 - 20% F.S. from 1 - 50 lpm) |
| Control Range | | 20:1 Typical - Application specific | |
| Repeatability & Reproducibility | | 0.20% S.P. | |
| Linearity | | Included in accuracy | |
| Response Time (Settling Time within ± 2% F.S. for 0 - 100% command step) | | System dependent | <1 second |
| Zero Stability | | <±0.001% F.S. per 30 days | Dependent on Remote Pressure Transducer |
| Temperature Coefficient | | <±0.1% F.S. per °C | Dependent on Remote Pressure Transducer |
| Pressure Coefficient (Flow Measurement Only) | | N/A | ±0.03% per psi (0 - 200 psi N ₂) |
| Attitude Sensitivity | | The accuracy of the Pressure Sensor is not attitude dependent | |
| Ratings | | | |
| Operating Temperature Range | | (-14) - 65°C (7 - 149°F) ³ | |
| Transducer Pressure Ratings | | 15 psia / 1.03 bara for <15 psia F.S. 15 psig / 1.03 barg for <15 psig F.S. 100 psia / 6.9 bara for <100 psia F.S. 100 psig / 6.9 barg for 15 - 100 psig F.S. 300 psia / 20.7 bara for 100 - 300 psia F.S. 300 psig / 20.7 barg for 100 - 300 psig F.S. 3000 psia / 206.9 bara for 300 - 3000 psia F.S. 4500 psia / 310.3 bara for 3000 - 4500 psia F.S. | Dependent on Remote Pressure Transducer |
| Leak Integrity (External) | | 1x10 ⁻⁹ atm. cc/sec He | |
| Mechanical | | | |
| Valve Type | | Normally Closed, Normally Open | |
| Primary Wetted Materials | | 316L Stainless Steel, High Alloy Stainless Steel, Viton® fluoroelastomers. Optional Buna-N, Kalrez®, Teflon®/Kalrez®, and EPDM | |
| Diagnostics | | | |
| Status Lights | | MFC Health, Network Status | |
| Alarms ² | | Sensor Output, Control Valve Output, Over Temperature, Power Surge/Sag, Network Interruption | |
| Diagnostic / Service Port | | RS485 via 2.5 mm jack (Located under the top cover in SLAMF version) | |

² Alarm modes are dependent on the communications interface. These are described in the corresponding digital communication interface manual.

³ Hazardous area certifications have a temperature range limitation of 0 - 65°C.

Product Specifications

Electrical Specifications

| | RS485 | Profibus® | DeviceNet® ⁶ |
|--|--|---|---|
| Communication Protocol | | | |
| Electrical Connection (SLA58XX) | 1 x 15-pin Male Sub-D, (A) | 1 x 15-pin Male Sub-D 1 x 9-pin Female Sub-D | 1 M12 with threaded coupling nut (B) |
| Electrical Connection (SLAMF) | PG11 Cable Gland, 1/2" NPT (F) Conduit, M20 x 1.5 Conduit | | N/A |
| Analog I/O | 0 - 5 V, 1 - 5 V, 0 - 10 V, 0 - 20 mA, 4 - 20 mA | | N/A |
| Power Max. / Purge | From +13.5 Vdc to +27 Vdc | | From +11 Vdc to +25 Vdc |
| Power Requirements Watts, Max. | Valve Orifice >0.032": 8.7 Watts Valve Orifice ≤0.032": 5.2 Watts | | Valve Orifice >0.032": 10 Watts Valve Orifice ≤0.032": 7 Watts |
| Voltage Setpoint Input Specifications | | | |
| Nominal Range | 0 - 5 Vdc, 1 - 5 Vdc or 0 - 10 Vdc | | N/A |
| Full Range | (-0.5) - 11 Vdc | | N/A |
| Absolute Max | 18 V (without damage) | | N/A |
| Input Impedance | >990 kOhms | | N/A |
| Current Setpoint Input Specifications | | | |
| Nominal Range | 4 - 20 mA or 0 - 20 mA | | N/A |
| Full Range | 0 - 22 mA | | N/A |
| Absolute Max | 24 mA (without damage) | | N/A |
| Input Impedance | 100 Ohms | | N/A |
| Flow Output (Voltage) Specifications | | | |
| Nominal Range | 0 - 5 Vdc, 1 - 5 Vdc or 0 - 10 Vdc | | N/A |
| Full Range | (-1) - 11 Vdc | | N/A |
| Min Load Resistance | 2 kOhms | | N/A |
| Flow Output (Current) Specifications | | | |
| Nominal Range | 0 - 20 mA or 4 - 20 mA | | N/A |
| Full Range | 0 - 22 mA | | N/A |
| Max. Load | 380 Ohms | | N/A |
| Analog I/O Alarm Output⁴ | | | |
| Type | Open Collector | | N/A |
| Max. Closed (On) Current | 25 mA | | N/A |
| Max. Open (Off) Leakage | 1µA | | N/A |
| Max. Open (Off) Voltage | 30 Vdc | | N/A |
| Analog I/O Valve Override Signal Specifications⁵ | | | |
| Floating / Unconnected | Instrument controls valve to command set point | | N/A |
| VOR < 0.3 Vdc | Valve Closed | | N/A |
| 0.3 Vdc < VOR < 4.8 Vdc | Undefined | | N/A |
| VOR > 4.8 Vdc | Valve Open | | N/A |
| Input Impedance | 60 kOhms | | N/A |
| Absolute Max. Input | (-25 Vdc) < VOR < 25 Vdc (without damage) | | N/A |

⁴ The Alarm Output is an open collector or "contact type" that is CLOSED (on) whenever an alarm is active.

The Alarm Output may be set to indicate any one of various alarm conditions.

⁵ The Valve Override Signal (VOR) is implemented as an analog input which measures the voltage at the input and controls the valve based upon the measured reading as shown in this section.

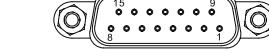
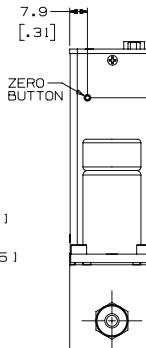
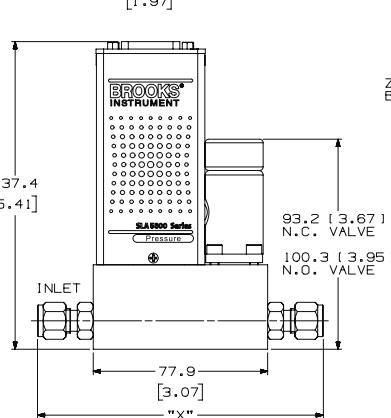
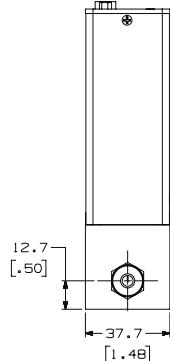
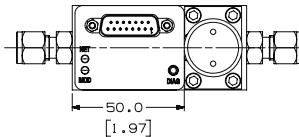
⁶ Available on SLA5810/20/40 only.

Product Dimensions

SLA5810/20 - Thru-Flow, RS485

MM/[INCH]

1.97



15-Pin Sub-D Male Connector

| Pin | Description |
|-----|--|
| 1 | Setpoint Common |
| 2 | Pressure Output (0 - 5 V, 1 - 5 V) |
| 3 | Alarm Out |
| 4 | Pressure Output (0 - 20 mA, 4 - 20 mA) |
| 5 | Power Supply (13.5 - 27 V) |
| 6 | Not Connected |
| 7 | Setpoint Input (0 - 20 mA, 4 - 20 mA) |
| 8 | Setpoint Input (0 - 5 V, 1 - 5 V) |
| 9 | Power Common |
| 10 | Pressure Out Common |
| 11 | Not Connected |
| 12 | Valve Override Input |
| 13 | Aux Input (0 - 5 V, 0 - 10 V) |
| 14 | RS-485, B (-), Input / Output |
| 15 | RS-485, A (+), Input / Output |

Fitting Dim X

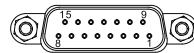
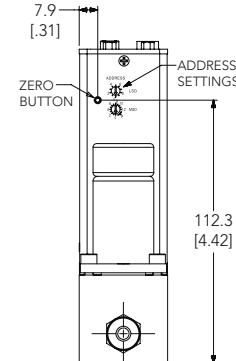
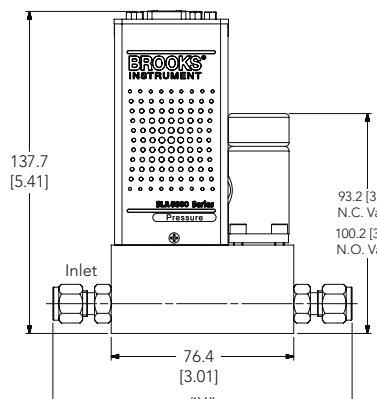
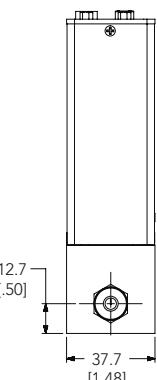
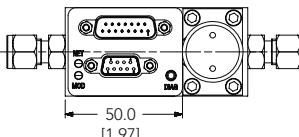
| | |
|-----------------|-------------------|
| 1/8" Tube Comp. | *122.7mm [4.83in] |
| 1/4" Tube Comp. | *127.8mm [5.03in] |
| 3/8" Tube Comp. | *130.8mm [5.15in] |
| 1/4" VCR | 124.0mm [4.88in] |
| 1/4" VCO | 117.6mm [4.63in] |
| 1/4" NPT-F | 125.5mm [4.94in] |
| 3mm Tube Comp. | *127.8mm [5.03in] |
| 6mm Tube Comp. | *127.8mm [5.03in] |
| 10mm Tube Comp. | *131.3mm [5.17in] |
| 3/8" - 1/2" VCR | 138.9mm [5.47in] |
| 3/8" - 1/2" VCO | 128.8mm [5.07in] |

* Overall length finger tight

SLA5810/20 - Thru-Flow, Profibus

MM/[INCH]

1.97



15-Pin Sub-D Male Connector

| Pin | Description |
|-----|---|
| 1 | Setpoint Common |
| 2 | Flow Output (0 - 5 V, 1 - 5 V, 0 - 10 V) |
| 3 | Alarm Out |
| 4 | Flow Output (0 - 20 mA, 4 - 20 mA) |
| 5 | Power Supply (13.5 - 27 V) |
| 6 | Not Connected |
| 7 | Setpoint Input (0 - 20 mA, 4 - 20 mA) |
| 8 | Setpoint Input (0 - 5 V, 1 - 5 V, 0 - 10 V) |
| 9 | Power Common |
| 10 | Flow Out Common |
| 11 | Not Connected |
| 12 | Valve Override Input |
| 13 | Aux Input (0 - 5 V, 0 - 10 V) |
| 14 | Not Connected |
| 15 | Not Connected |

Fitting Dim X

| | |
|-----------------|-------------------|
| 1/8" Tube Comp. | *122.7mm [4.83in] |
| 1/4" Tube Comp. | *127.8mm [5.03in] |
| 3/8" Tube Comp. | *130.8mm [5.15in] |
| 1/4" VCR | 124.0mm [4.88in] |
| 1/4" VCO | 117.6mm [4.63in] |
| 1/4" NPT-F | 125.5mm [4.94in] |
| 3mm Tube Comp. | *127.8mm [5.03in] |
| 6mm Tube Comp. | *127.8mm [5.03in] |
| 10mm Tube Comp. | *131.3mm [5.17in] |
| 3/8" - 1/2" VCR | 138.9mm [5.47in] |
| 3/8" - 1/2" VCO | 128.8mm [5.07in] |

* Overall length finger tight

9-Pin Sub-D Female Connector

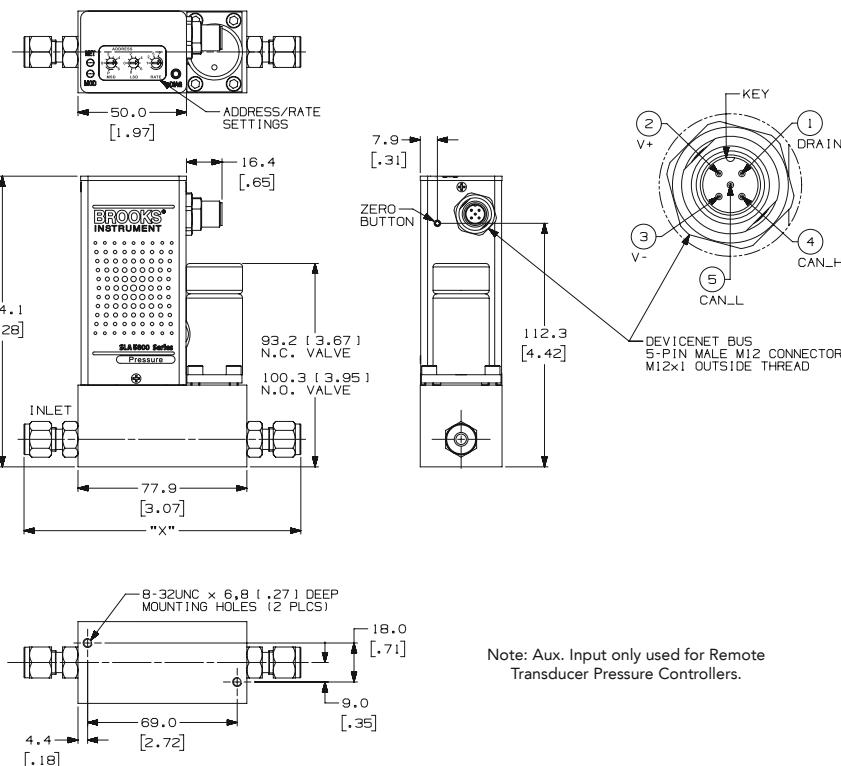
| Pin | Description |
|-----|----------------------------|
| 1 | Not Connected |
| 2 | Not Connected |
| 3 | RXD / TXD - B - red wire |
| 4 | Not Connected |
| 5 | Ground |
| 6 | +5 Vdc |
| 7 | Not Connected |
| 8 | RXD / TXD - A - green wire |
| 9 | Not Connected |

Note: Aux. Input only used for Remote Transducer Pressure Controllers.

Product Dimensions

SLA5810/20 - Thru-Flow, DeviceNet

MM/[INCH]



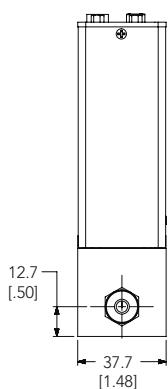
Fitting Dim X

| Fitting | Dim X |
|-----------------|-------------------|
| 1/8" Tube Comp. | *122.7mm [4.83in] |
| 1/4" Tube Comp. | *127.8mm [5.03in] |
| 3/8" Tube Comp. | *130.8mm [5.15in] |
| 1/4" VCR | 124.0mm [4.88in] |
| 1/4" VCO | 117.6mm [4.63in] |
| 1/4" NPT-F | 125.5mm [4.94in] |
| 3mm Tube Comp. | *127.8mm [5.03in] |
| 6mm Tube Comp. | *127.8mm [5.03in] |
| 10mm Tube Comp. | *131.3mm [5.17in] |
| 3/8" - 1/2" VCR | 138.9mm [5.47in] |
| 3/8" - 1/2" VCO | 128.8mm [5.07in] |

* Overall length finger tight

SLA5840 - Thru-Flow, Profibus

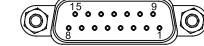
MM/[INCH]



Fitting Dim X

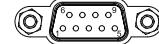
| Fitting | Dim X |
|-----------------|-------------------|
| 1/8" Tube Comp. | *122.7mm [4.83in] |
| 1/4" Tube Comp. | *127.8mm [5.03in] |
| 3/8" Tube Comp. | *130.8mm [5.15in] |
| 1/4" VCR | 124.0mm [4.88in] |
| 1/4" VCO | 117.6mm [4.63in] |
| 1/4" NPT-F | 125.5mm [4.94in] |
| 3mm Tube Comp. | *127.8mm [5.03in] |
| 6mm Tube Comp. | *127.8mm [5.03in] |
| 10mm Tube Comp. | *131.3mm [5.17in] |
| 3/8" - 1/2" VCR | 138.9mm [5.47in] |
| 3/8" - 1/2" VCO | 128.8mm [5.07in] |
| 1/4" RC (BSP) | 116.6mm [4.59in] |
| 1/4" RP (BSP) | 116.6mm [4.59in] |

* Overall length finger tight



15-Pin Sub-D Male Connector

| Pin | Description |
|-----|---|
| 1 | Setpoint Common |
| 2 | Flow Output (0 - 5 V, 1 - 5 V, 0 - 10 V) |
| 3 | Alarm Out |
| 4 | Flow Output (0 - 20 mA, 4 - 20 mA) |
| 5 | Power Supply (13.5 - 27 V) |
| 6 | Not Connected |
| 7 | Setpoint Input (0 - 20 mA, 4 - 20 mA) |
| 8 | Setpoint Input (0 - 5 V, 1 - 5 V, 0 - 10 V) |
| 9 | Power Common |
| 10 | Flow Out Common |
| 11 | Not Connected |
| 12 | Valve Override Input |
| 13 | Aux Input (0 - 5 V, 0 - 10 V) |
| 14 | Not Connected |
| 15 | Not Connected |



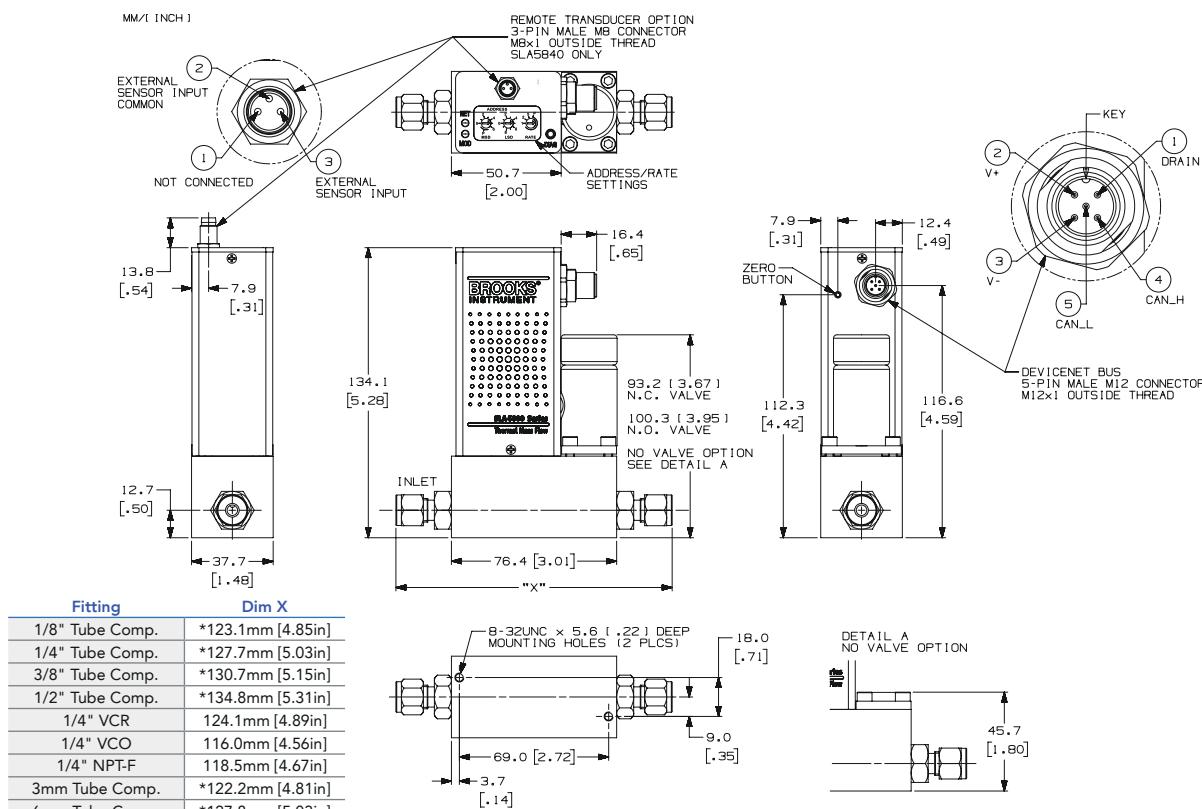
9-Pin Sub-D Female Connector

| Pin | Description |
|-----|----------------------------|
| 1 | Not Connected |
| 2 | Not Connected |
| 3 | RXD / TXD - B - red wire |
| 4 | Not Connected |
| 5 | Ground |
| 6 | +5 Vdc |
| 7 | Not Connected |
| 8 | RXD / TXD - A - green wire |
| 9 | Not Connected |

Note: Aux. Input only used for Remote Transducer Pressure Controllers.

Product Dimensions

SLA5840 - Thru-Flow, DeviceNet



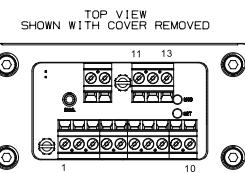
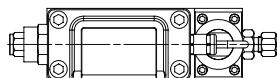
Note: Aux. Input only used for Remote Transducer Pressure Controllers.

SLAMF10/20 - Thru-Flow, RS485

MM/[INCH]

| Cable Connector | Dim W |
|---|-----------------|
| Cable Gland 0.20 [5.1] to 0.39 [9.9] Dia. Cable | 28.6mm [1.12in] |
| 1/2" NPT-F Conduit | 16.5mm [0.65in] |
| M20x1.5 (F) Conduit | 12.5mm [0.49in] |

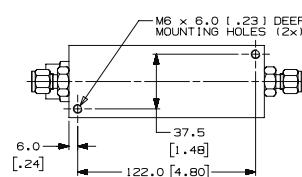
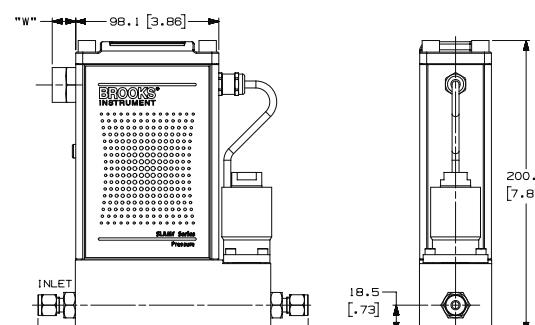
* Overall length finger tight



| Terminal | Description |
|----------|--|
| 1 | Setpoint Common |
| 2 | Pressure Output (0 - 5 V, 1 - 5 V) |
| 3 | Alarm Out |
| 4 | Pressure Output (0 - 20 mA, 4 - 20 mA) |
| 5 | Power Supply (13.5 - 27 V) |
| 6 | Setpoint Input (0 - 20 mA, 4 - 20 mA) |
| 7 | Setpoint Input (0 - 5 V, 1 - 5 V) |
| 8 | Power Common |
| 9 | Pressure Out Common |
| 10 | Valve Override Input |
| 11 | Aux Input (0 - 5 V, 0 - 10 V) |
| 12 | RS-485, B (-), Input / Output |
| 13 | RS-485, A (+), Input / Output |

| Fitting | Dim X |
|-----------------|-------------------|
| 1/8" Tube Comp. | *180.7mm [7.12in] |
| 1/4" Tube Comp. | *185.3mm [7.30in] |
| 3/8" Tube Comp. | *188.4mm [7.42in] |
| 1/2" Tube Comp. | *192.4mm [7.58in] |
| 1/4" VCR | 181.8mm [7.16in] |
| 1/4" VCO | 173.6mm [6.84in] |
| 1/4" NPT-F | 176.2mm [6.94in] |
| 6mm Tube Comp. | *185.4mm [7.30in] |
| 10mm Tube Comp. | *188.8mm [7.43in] |
| 3/8" - 1/2" VCR | 189.4mm [7.46in] |
| 3/8" - 1/2" VCO | 184.8mm [7.28in] |
| 1/4" RC-F (BSP) | 174.2mm [6.86in] |

* Overall length finger tight



Note: Aux. Input only used for Remote Transducer Pressure Controllers.

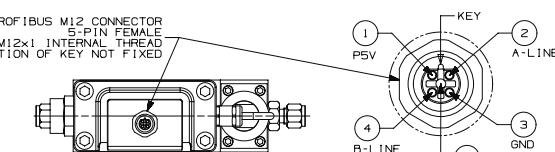
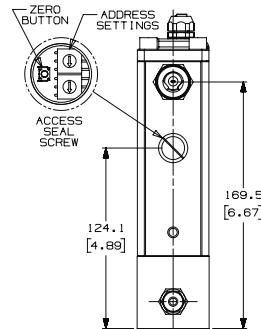
Product Dimensions

SLAMF10/20 - Thru-Flow, Profibus

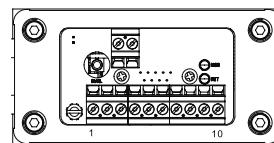
MM/1 INCH

| Cable Connector | Dim W |
|---|-----------------|
| Cable Gland 0.20 [5.1] to 0.39 [9.9] Dia. Cable | 28.6mm [1.12in] |
| 1/2" NPT-F Conduit | 16.5mm [0.65in] |
| M20x1.5 (F) Conduit | 12.5mm [0.49in] |

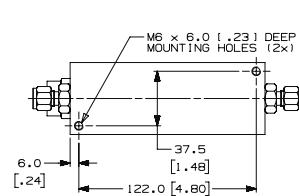
* Overall length finger tight



TOP VIEW SHOWN WITH COVER REMOVED



| Terminal | Description |
|----------|---|
| 1 | Power Supply (13.5 - 27 V) |
| 2 | Valve Override Input |
| 3 | Power Common |
| 4 | Aux Common |
| 5 | Aux Input (0 - 5 V, 0 - 10 V) |
| Terminal | Profibus M12 Connector Wire to Terminals 6-10 |
| 6 | PSV (Brown) |
| 7 | RXD/TXD - B-Line (RED) |
| 8 | Ground (Blue) |
| 9 | RXD/TXD - A-Line (Green) |
| 10 | Shield (Gray) |



Note: Aux. Input only used for Remote Transducer Pressure Controllers.

| Fitting | Dim X |
|-----------------|-------------------|
| 1/8" Tube Comp. | *180.7mm [7.12in] |
| 1/4" Tube Comp. | *185.3mm [7.30in] |
| 3/8" Tube Comp. | *188.4mm [7.42in] |
| 1/2" Tube Comp. | *192.4mm [7.58in] |
| 1/4" VCR | 181.8mm [7.16in] |
| 1/4" VCO | 173.6mm [6.84in] |
| 1/4" NPT-F | 176.2mm [6.94in] |
| 6mm Tube Comp. | *185.4mm [7.30in] |
| 10mm Tube Comp. | *188.8mm [7.43in] |
| 3/8" - 1/2" VCR | 189.4mm [7.46in] |
| 3/8" - 1/2" VCO | 184.8mm [7.28in] |
| 1/4" RC-F (BSP) | 174.2mm [6.86in] |

* Overall length finger tight

| Code Description | Code Option | Option Description |
|---|-------------|--|
| I. Base Model Code | SLA | Smart Link Advantage |
| II. Configurability | 58 | Standard Elastomer Series |
| | MF | Standard Elastomer Series (NEMA 4X/IP66 Housing) |
| III. Function | 1 | Downstream Pressure Controller |
| | 2 | Upstream Pressure Controller |
| | 4 | Remote Transducer Pressure Controller (SLA58XX Only) |
| IV. Gas or Range | 0 | 3 ccm - 50 lpm |
| V. Digital I/O Communication (SLA58XX Pressure Controllers)* | A | None (select applicable analog I/O) |
| | D | DeviceNet I/O (with 5-pin micro connector) (Only on SLA5810/20/40) |
| | P | Profibus (2x sub-D) |
| | S | RS485 (select applicable analog I/O) |
| V. Digital I/O Communication (SLAMFXX Pressure Controllers) | A | None (select applicable analog I/O) |
| | P | Profibus (5-pin female M12, M20 x 1.5 conduit) |
| | R | Profibus (5-pin female M12, PG11 cable gland) |
| | T | Profibus (5-pin female M12, 1/2" NPT (F) conduit) |
| | S | RS485 (select applicable analog I/O) |
| VI. Mechanical Connection | 1A | Without adapters, 9/16" - 18 UNF |
| | 1B | 1/4" tube compression |
| | 1C | 1/8" tube compression |
| | 1D | 3/8" tube compression |
| | 1E | 1/4" VCR |
| | 1F | 1/4" VCO |
| | 1G | 1/4" NPT |
| | 1H | 6mm tube compression |
| | 1J | 10mm tube compression |
| | 1L | 3/8"-1/2" VCR |
| | 1M | 3/8"-1/2" VCO |
| | 1P | 1/2" tube compression |
| | 1Q | 1/4" RP (BSP) |
| | 1T | 1/4" RC (BSP) |
| | 1Y | 3mm tube compression |
| | B1 | 1/4" tube compression w/filter |
| | C1 | 1/8" tube compression w/filter |
| | D1 | 3/8" tube compression w/filter |
| | E1 | 1/4" VCR w/filter |
| | F1 | 1/4" VCO w/filter |
| | G1 | 1/4" NPT w/filter |
| | H1 | 6mm tube compression w/filter |
| | J1 | 10mm tube compression w/filter |
| | L1 | 3/8"-1/2" VCR w/filter |
| | M1 | 3/8"-1/2" VCO w/filter |
| | P1 | 1/2" tube compression w/filter |
| | Q1 | 1/4" RP (BSP) with Filter |
| | T1 | 1/4" RC (BSP) w/filter |
| | Y1 | 3mm tube compression w/filter |
| VII. O-Ring Material | A | Viton |
| | B | Buna |
| | C | PTFE |
| | D | Kalrez |
| | E | EPDM |
| | J | FDA/USP Class VI - Viton |
| | L | FDA/USP Class VI - EPDM |

Model Code

| Code Description | Code Option | Option Description | | |
|--|-------------|--|--------------------------|----------------------|
| IX. Valve Type | 1 | Normally Closed (≤ 1500 psi) | | |
| | 4 | Normally Closed High Pressure (1500 - 4500 psi) | | |
| | 5 | Normally Open (SLA5810/20 Only) (≤ 1500 psi) | | |
| X. Analog I/O Communications (SLA58XX Pressure Controllers) | A | None - Digital Communications Only | | |
| | B | 0 - 5 Volt | 0 - 5 Volt | |
| | C | 4 - 20 mA | 4 - 20 mA | |
| | L | 1 - 5 Volt | 1 - 5 Volt | |
| | M | 0 - 20 mA | 0 - 20 mA | |
| | 0 | 0 - 10 Volt | 0 - 10 Volt | |
| | 1 | 0 - 5 Volt | 4 - 20 mA | |
| | 2 | 0 - 5 Volt | 0 - 20 mA | |
| | 3 | 4 - 20 mA | 0 - 5 Volt | |
| | 4 | 0 - 20 mA | 0 - 5 Volt | |
| | 9 | 0 - 10 Volt | 0 - 5 Volt | |
| X. Analog I/O Communications (SLAMFXX Pressure Controllers) | A | None - Digital Communications Only | | |
| | E | 4 - 20 Ma | 0 - 5 Volt | PG11 Gland |
| | F | 0 - 5 Volt | 0 - 5 Volt | PG11 Gland |
| | G | 4 - 20 mA | 4 - 20 mA | PG11 Gland |
| | H | 0 - 5 Volt | 4 - 20 mA | PG11 Gland |
| | I | 0 - 5 Volt | 0 - 20 mA | PG11 Gland |
| | J | 0 - 5 Volt | 0 - 5 Volt | 1/2" NPT (F) Conduit |
| | K | 4 - 20 mA | 4 - 20 mA | 1/2" NPT (F) Conduit |
| | N | 0 - 5 Volt | 4 - 20 mA | M20 x 1.5 Conduit |
| | O | 0 - 5 Volt | 0 - 20 mA | M20 x 1.5 Conduit |
| | P | 4 - 20 mA | 0 - 5 Volt | M20 x 1.5 Conduit |
| | Q | 0 - 20 mA | 0 - 5 Volt | M20 x 1.5 Conduit |
| | R | 1 - 5 Volt | 1 - 5 Volt | PG11 Gland |
| | S | 0 - 20 mA | 0 - 20 mA | PG11 Gland |
| | T | 1 - 5 Volt | 1 - 5 Volt | 1/2" NPT (F) Conduit |
| | U | 0 - 20 mA | 0 - 20 mA | 1/2" NPT (F) Conduit |
| | V | 0 - 5 Volt | 0 - 5 Volt | M20 x 1.5 Conduit |
| | W | 1 - 5 Volt | 1 - 5 Volt | M20 x 1.5 Conduit |
| | X | 0 - 20 mA | 0 - 20 mA | M20 x 1.5 Conduit |
| | Y | 4 - 20 mA | 4 - 20 mA | M20 x 1.5 Conduit |
| | Z | 0 - 20 mA | 0 - 5 Volt | PG11 Gland |
| | 5 | 0 - 5 Volt | 4 - 20 mA | 1/2" NPT (F) Conduit |
| | 6 | 0 - 5 Volt | 0 - 20 mA | 1/2" NPT (F) Conduit |
| | 7 | 4 - 20 mA | 0 - 5 Volt | 1/2" NPT (F) Conduit |
| | 8 | 0 - 20 mA | 0 - 5 Volt | 1/2" NPT (F) Conduit |
| XI. Power Supply Inputs | 1 | +15 Vdc | | |
| | 2 | 24 Vdc | | |
| XII. Output Enhancements | | A | Standard Response | |
| XIII. Certification | | 1 | Safe Area | |
| | | 2 | For Zone II Atex / IECEx | |

Sample Model Code

| I | II | III | IV | V | VI | VII | VIII | IX | X | XI | XII | XIII |
|-----|----|-----|----|---|----|-----|------|----|---|----|-----|------|
| SLA | 58 | 5 | 0 | A | 1A | A | B | 1 | B | 1 | A | 1 |

Certifications - SLA58XX

| Mark | Agency | Certification | Applicable Standard | Details |
|---|-----------------|--|---------------------------------------|--------------------------------|
|  | UL (Recognized) | Class I, Div 2, Group A, B, C, D Class I, Zone 2, IIC T4 Class II, Zone 22 | UL & CSA Standards | E73889 Vol 3, Sec 4 |
|  | ATEX | II 3 G Ex nA IIC T4 Gc | EN 60079-0:2012 EN 60079-15:2010 | KEMA 04ATEX 1118X |
| | IECEx | II 3 G Ex nA IIC T4 Gc | IEC 60079-0:2011 IEC 60079-15:2010 | IECEx DEK 14.0072X |
|  | KOSHA | Ex nA IIC T4 | | 15-AV4BO-0641 15-AV4BO-0640 |
|  | CE | EMC Directive 2014/30/EU Directive 2011/65/EU | EN:61326-1:2013 | EMC RoHS |

*UL Recognized certification applies to the SLA5810/20 only

Certifications - SLAMFXX

| Mark | Agency | Certification | Applicable Standard | Details |
|---|-----------------|---|--|--|
|  | UL (Recognized) | Class I, Div 2, Group A, B, C, D Class I, Zone 2, IIC T4 Class II, Zone 22 IP66 | UL & CSA Standards | E73889 Vol 3, Sec 4 |
|  | UL (Listed) | Class I, Div 2, Group A, B, C, D Class I, Zone 2, IIC T4 Class II, Zone 22 IP66 | UL & CSA Standards | E73889 Vol 1, Sec 25 |
|  | ATEX | II 3 G Ex nA IIC T4 Gc II 3 D Ex tc IIIC T 85°C Dc IP66 | EN 60079-0:2012 + A11:2013 EN 60079-15:2010 EN 60079-31:2014 | KEMA 04ATEX1290 X |
| | IECEx | Ex nA IIC T4 Gc Ex tc IIIC T 85°C Dc IP66 | IEC 60079-0:2011 + Corr. 2012 + Corr. 2013 IEC 60079-15:2010 IEC 60079-31:2013 | IECEx KEM 07.0043X |
|  | KOSHA | Ex nA IIC T4 Ex tD A22 IP66 T85°C | The Ministry of Employment and Labor Notice No. 2013-34 Article 34 of the Industrial Safety and Health | 15-AV4BO-0638 15-AV4BO-0639 16-AV4BO-0328X 16-AV4BO-0327X |
|  | CE | EMC Directive 2014/30/EU Directive 2011/65/EU | EN:61326-1:2013 | EMC RoHS |

Service and Support

Brooks is committed to assuring all of our customers receive the ideal pressure controllers for their application, along with outstanding service and support to back it up. We operate first class repair facilities located around the world to provide rapid response and support. Each location utilizes primary standard calibration equipment to ensure accuracy and reliability for repairs and recalibration and is certified by our local Weights and Measures Authorities and traceable to the relevant International Standards.

Visit www.BrooksInstrument.com to locate the service location nearest to you.

START-UP SERVICE AND IN-SITU CALIBRATION

Brooks Instrument can provide start-up service prior to operation when required. For some process applications, where ISO-9001 Quality Certification is important, it is mandatory to verify and/or (re)calibrate the products periodically. In many cases this service can be provided under in-situ conditions, and the results will be traceable to the relevant international quality standards.

SEMINARS AND TRAINING

Brooks Instrument can provide customer seminars and dedicated training to engineers, end users, and maintenance persons. Please contact your nearest sales representative for more details. Due to Brooks Instrument's commitment to continuous improvement of our products, all specifications are subject to change without notice.



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