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**1 Choosing a fluidic fixture for your FLS110 evaluation**

The fluidic fixtures in this catalogue are available to order through the Flusso [customer portal](#) as part of your FLS110 Evaluation Kit. With the fixture and sensor module pre-assembled and tested by us, you can quickly start trying out a real FLS110 flow sensing solution. Please refer to these documents for more information:

- FLS110 Evaluation Kit User Guide (FL-000956-UG)
- FLS110 Miniature Gas Flow Sensor Datasheet (FL-000038-DS)
- Developing Your Flow Sensing Solution With FLS110 (FL-000986-TN)

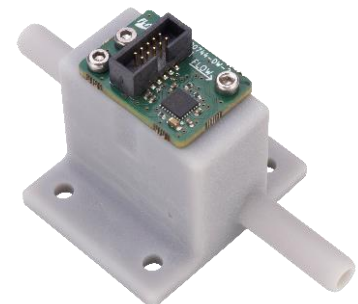
Simply choose the fixture closest to your application requirements for system flow rate and pressure drop. The following information is provided for each fixture:

<b>Reference</b>	Specify this reference number when ordering a fixture		
<b>Type</b>	Through-flow / DP		Can be used for flow or differential pressure measurements. All the flow goes through the FLS110. There is no pressure drop element.
	Bypass	Viscous	Bypass flow path, viscous pressure drop element in the main pass
		Venturi	Bypass flow path, venturi pressure drop element in the main pass
<b>Nominal range</b>	The nominal operating range (upper limit) of the fixture. For through-flow / differential pressure (DP) fixtures, this matches the nominal range specified in the FLS110 datasheet, but it is OK to operate the FSL110 and fixture well above the specified level.		
<b>Port OD</b>	The outside diameter of the inlet and outlet ports.		
<b>Dimensions</b>	Approximate dimensions of the envelope of the fixture, L x W x H, including the ports. Length is in the direction of system flow.		

**2 Using the fixtures**

The fixtures are 3D-printed in Accura® Xtreme™ grey material from 3D Systems Corporation (<https://www.3dsystems.com/>). No surface coating is applied. We have used this material successfully for testing at temperatures from 0 °C to +50 °C but it is not suitable for more extreme temperatures or long-term use – discolouration and embrittlement is to be expected with aging.

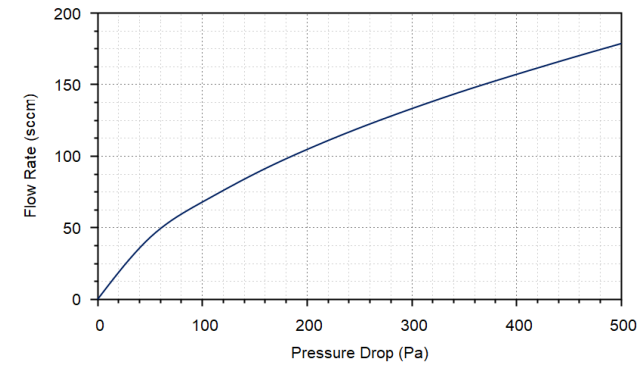
When connecting/disconnecting the fluidic fixtures to/from your test set-up beware of creating or disturbing dust that could be carried into the FLS110 by the flow and adversely affect sensing performance. Push-fit pneumatic connectors are very convenient but often have metal inserts to grip the tube, which scratch the surface and create dust. We recommend leaving them in place once fitted to the fixture.



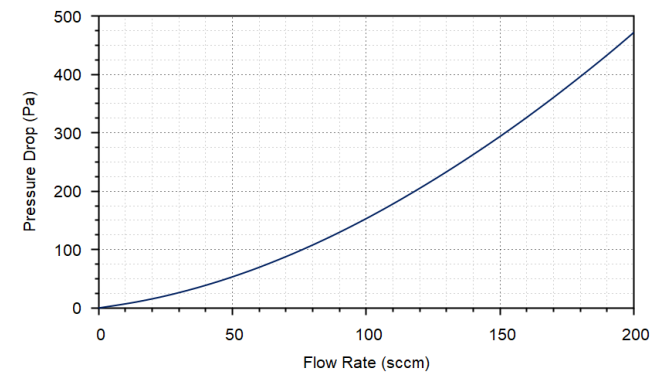
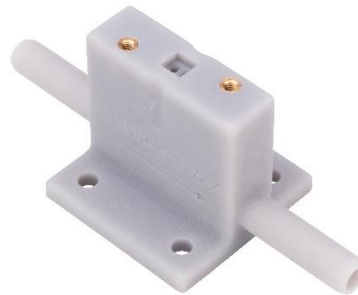
The FLS110 ports are sealed into the fixtures using O-rings. If you need to replace them, we recommend Nitrile 70 ShA, 1 mm inside diameter, 0.5 mm cross section.

### 3 Fixtures for sensor module FL-001068-PT without pressure sensor

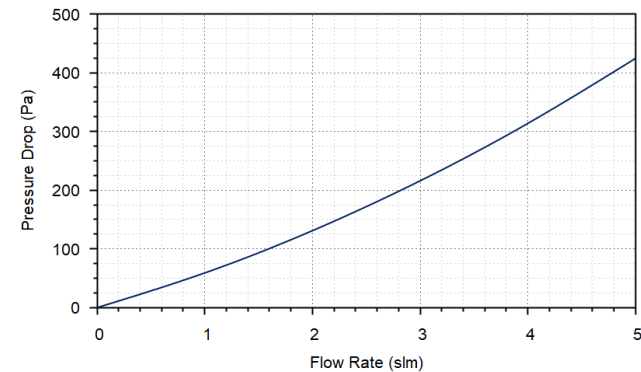
**Reference** FL-000771-DW  
**Type** Through-flow / DP  
**Nominal range** 200 sccm / 500 Pa  
**Port OD** 6 mm  
**Dimensions** 24 x 10 x 30 mm  
*Similar to FL-000630-DW but with parallel port orientation.*



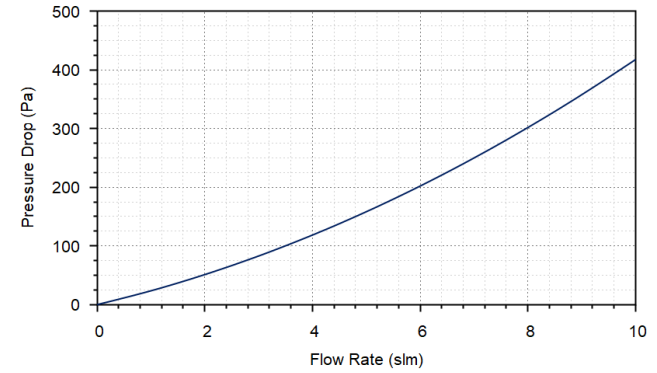
**Reference** FL-000630-DW  
**Type** Through-flow / DP  
**Nominal range** 200 sccm / 500 Pa  
**Port OD** 6 mm  
**Dimensions** 70 x 30 x 27 mm  
*Similar to FL-000771-DW but with in-line port orientation.*



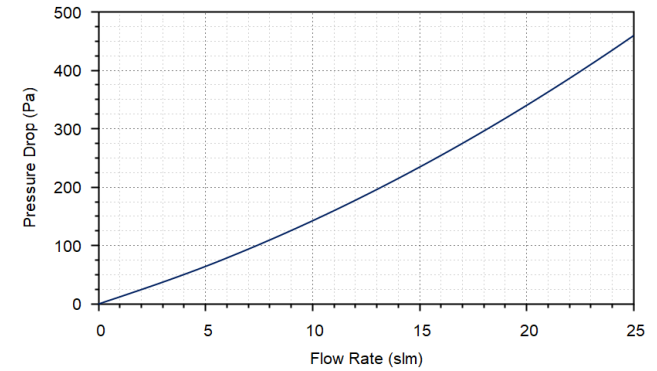
**Reference** FL-000673-DW  
**Type** Bypass – viscous  
**Nominal range** 5 slm  
**Port OD** 6 mm  
**Dimensions** 59 x 24 x 20 mm



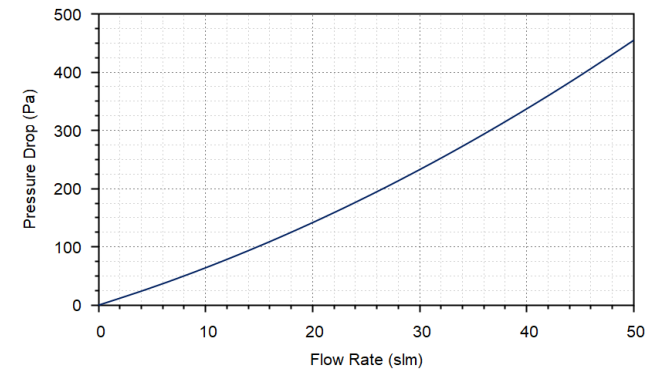
**Reference** FL-000674-DW  
**Type** Bypass – viscous  
**Nominal range** 10 slm  
**Port OD** 6 mm  
**Dimensions** 61 x 24 x 16 mm



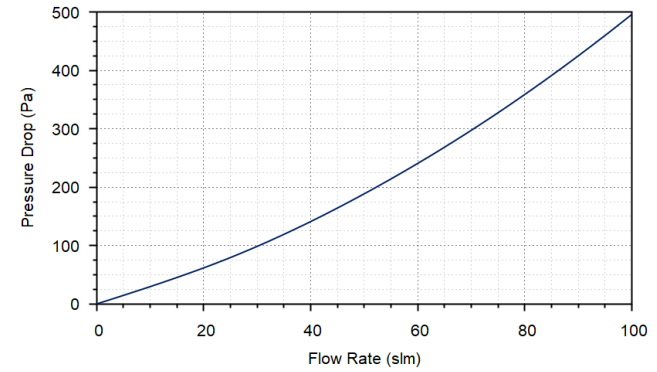
**Reference** FL-000675-DW  
**Type** Bypass – viscous  
**Nominal range** 25 slm  
**Port OD** 10 mm  
**Dimensions** 98 x 24 x 19 mm



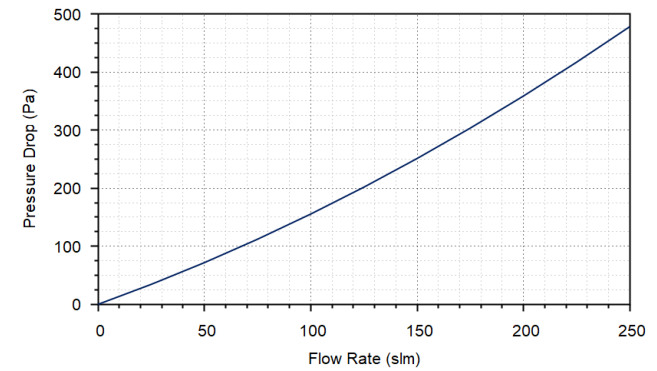
**Reference** FL-000676-DW  
**Type** Bypass – viscous  
**Nominal range** 50 slm  
**Port OD** 13 mm  
**Dimensions** 133 x 17 x 27 mm



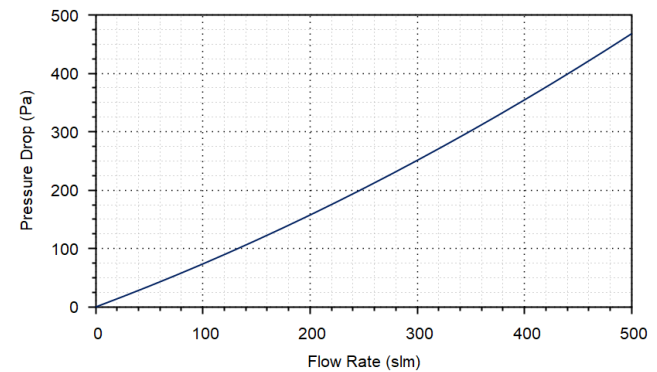
**Reference** FL-000677-DW  
**Type** Bypass – viscous  
**Nominal range** 100 slm  
**Port OD** 16 mm  
**Dimensions** 133 x 17 x 27 mm



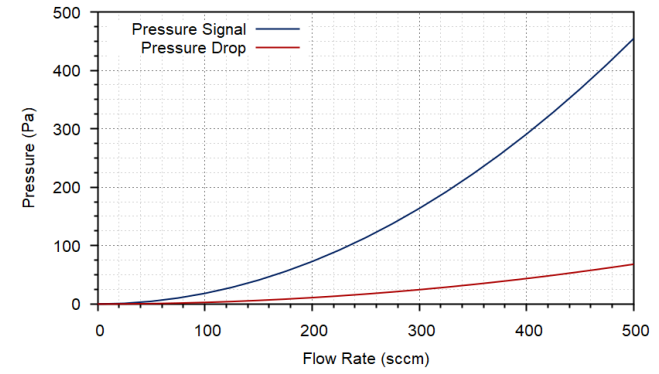
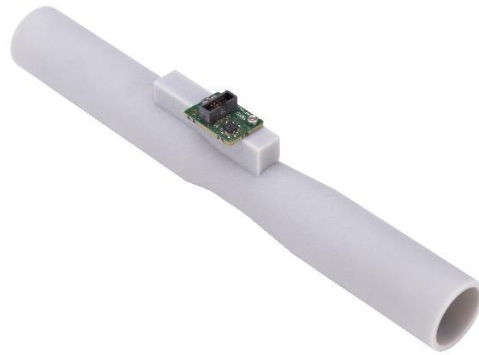
**Reference** FL-000678-DW  
**Type** Bypass – viscous  
**Nominal range** 250 slm  
**Port OD** 25 mm  
**Dimensions** 205 x 26 x 33 mm



**Reference** FL-000679-DW  
**Type** Bypass – viscous  
**Nominal range** 500 slm  
**Port OD** 25 mm  
**Dimensions** 225 x 30 x 37 mm



**Reference** FL-000622-DW  
**Type** Bypass – venturi  
**Nominal range** 500 slm  
**Port OD** 25 mm  
**Dimensions** 200 x 25 x 33 mm

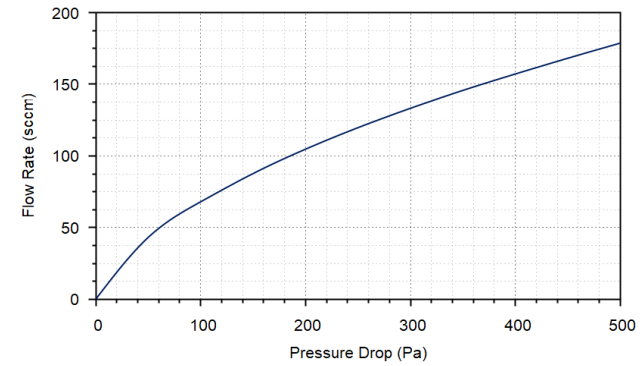


The venturi provides a greater pressure signal than its total pressure drop. The system pressure drop is shown in red.

**4 Fixtures for sensor module FL-001168-PT with pressure sensor fitted**

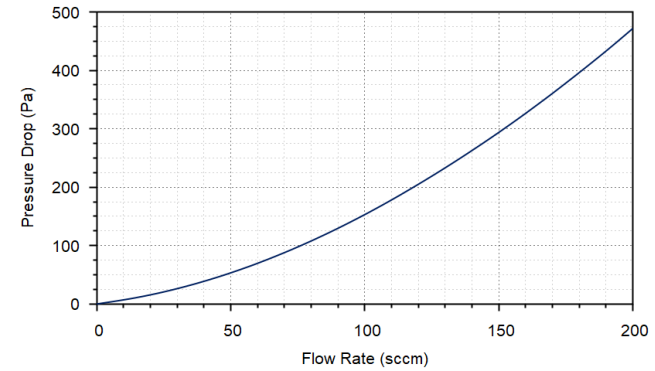
**Reference** FL-001391-DW  
**Type** Through-flow / DP  
**Nominal range** 200 sccm / 500 Pa  
**Port OD** 6 mm  
**Dimensions** 24 x 16 x 30 mm

*Similar to FL-001173-DW but with parallel port orientation.*

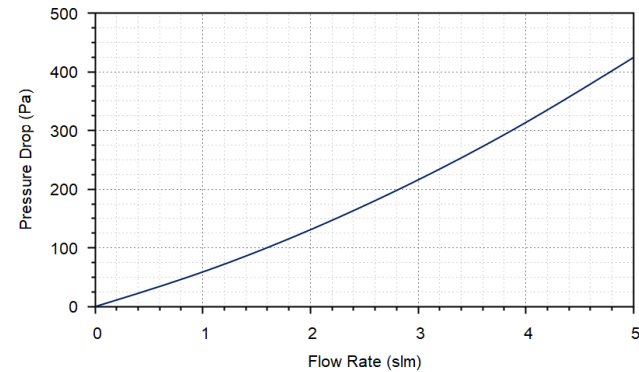


**Reference** FL-001173-DW  
**Type** Through-flow / DP  
**Nominal range** 200 sccm / 500 Pa  
**Port OD** 6 mm  
**Dimensions** 70 x 36 x 27 mm

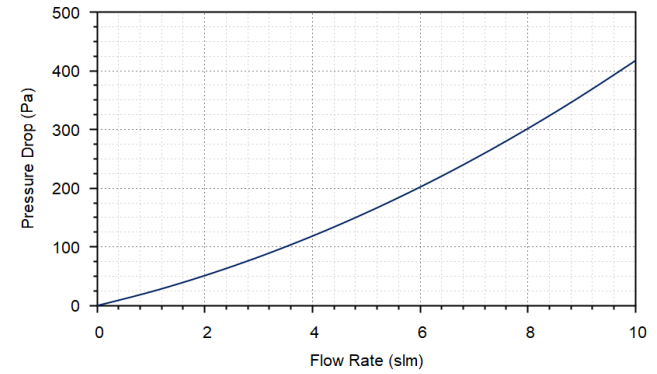
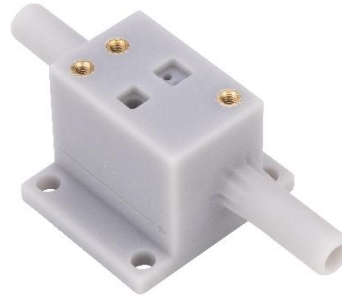
*Similar to FL-001391-DW but with in-line port orientation.*



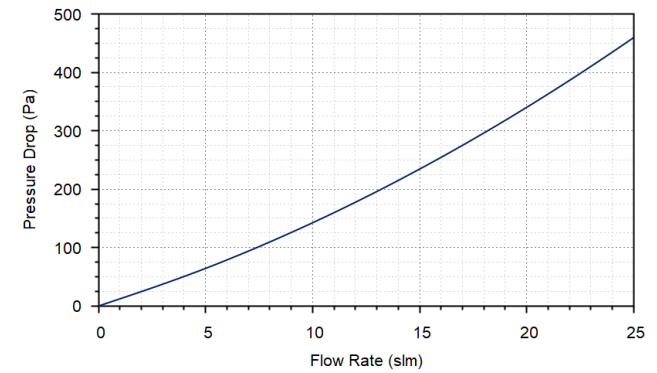
**Reference** FL-001174-DW  
**Type** Bypass – viscous  
**Nominal range** 5 slm  
**Port OD** 6 mm  
**Dimensions** 59 x 30 x 20 mm



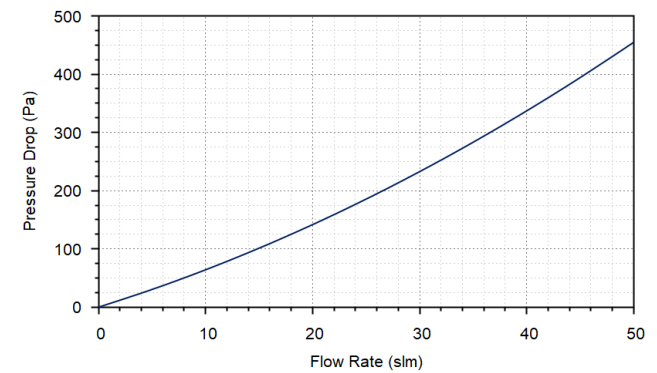
**Reference** FL-001237-DW  
**Type** Bypass – viscous  
**Nominal range** 10 slm  
**Port OD** 6 mm  
**Dimensions** 61 x 30 x 16 mm



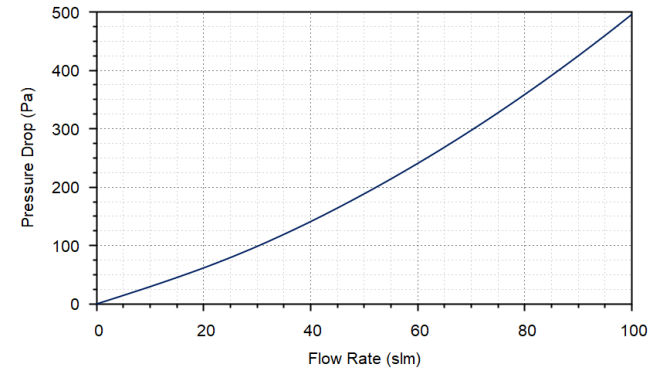
**Reference** FL-001238-DW  
**Type** Bypass – viscous  
**Nominal range** 25 slm  
**Port OD** 10 mm  
**Dimensions** 98 x 30 x 19 mm



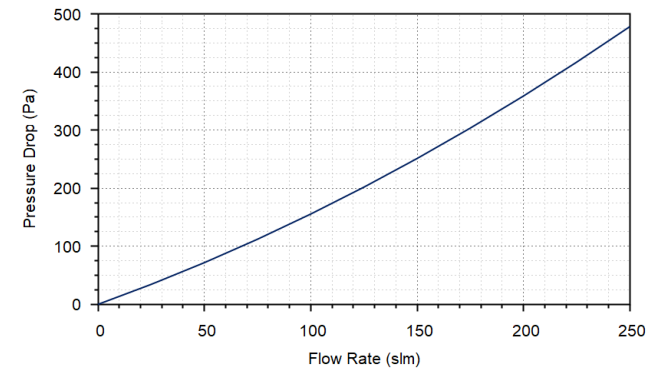
**Reference** FL-001240-DW  
**Type** Bypass – viscous  
**Nominal range** 50 slm  
**Port OD** 13 mm  
**Dimensions** 133 x 23 x 27 mm



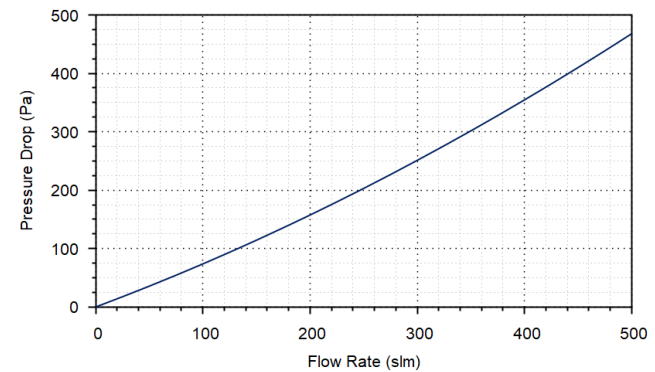
**Reference** FL-001242-DW  
**Type** Bypass – viscous  
**Nominal range** 100 slm  
**Port OD** 16 mm  
**Dimensions** 133 x 30 x 27 mm



**Reference** FL-001243-DW  
**Type** Bypass – viscous  
**Nominal range** 250 slm  
**Port OD** 25 mm  
**Dimensions** 205 x 26 x 33 mm

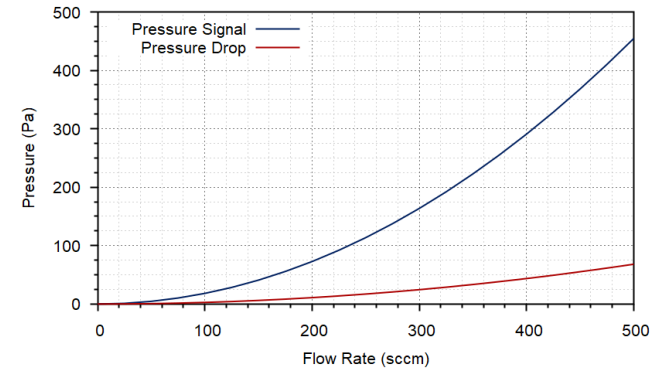


**Reference** FL-001244-DW  
**Type** Bypass – viscous  
**Nominal range** 500 slm  
**Port OD** 25 mm  
**Dimensions** 225 x 30 x 37 mm





**Reference** FL-001392-DW  
**Type** Bypass – venturi  
**Nominal range** 500 slm  
**Port OD** 25 mm  
**Dimensions** 200 x 25 x 33 mm



The venturi provides a greater pressure signal than its total pressure drop. The system pressure drop is shown in red.