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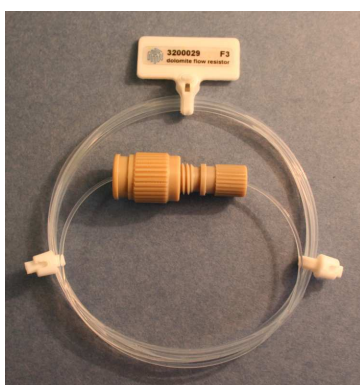
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INFORMATION SHEET

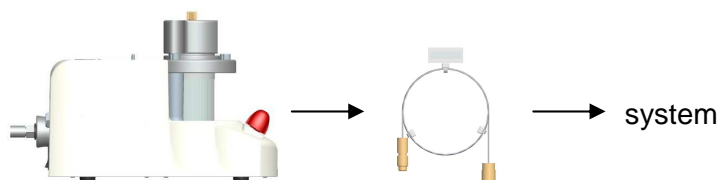
Part name	Mitos P-Pump flow resistors	Part number	3200028 – 3200032
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Description

The Mitos flow resistor can be used to insert additional flow resistance into a system and is designed for use with the Mitos P-Pump (3200016). A flow resistor enables very low flow rates to be achieved when connecting the P-Pump to systems of low fluidic resistance. For applications such as droplet generation, a flow resistor can be used to prevent flow rate instability due to the varying back pressure generated by using immiscible fluids of different viscosities. Dolomite offers a range of flow resistors to optimise your microfluidic system.



3200029 Mitos flow resistor F3



Flow resistor connected between Mitos P-Pump and system

Benefits

- Allows the flow rate range of the Mitos P-Pump to be maximised
- Enables low flow rate performance for systems of low fluidic resistance
- Prevents flow rate instability when using fluids of different viscosities
- Quick connect and release
- Excellent chemical compatibility
- Input and output can be connected together to prevent ingress of dust

	flow resistor specification	3200028 F1	3200029 F3	3200030 F10	3200031 F30	3200032 F100
1	Approx. flow rate generated by water pumped at 1 bar pressure	1 µl/min	3 µl/min	10 µl/min	30 µl/min	100 µl/min
2	Max flow rate ¹	10 µl/min	30 µl/min	100 µl/min	300 µl/min	1000 µl/min
3	Min flow rate ²	0.01 µl/min	0.03 µl/min	0.1 µl/min	0.3 µl/min	1 µl/min
4	Internal diameter	76 µm				
5	Wetted materials	FEP and PEEK				
6	Fittings	UNF ¼-28" Male and Female				

1) *Maximum flow rate is the approximate flow rate produced when the P-Pump is set to 10 bar and there is little or no fluidic resistance downstream of the flow restrictor.*



- 2) *Minimum flow rate is the approximate flow rate produced when the P-Pump is set to 10 mbar and there is little or no fluidic resistance downstream of the flow restrictor.*

Flow Resistor Selection

The flow resistor should be selected based on the desired flow rate and the viscosity of the selected liquid using the table below.

		Desired flow rate at 1 bar pressure (µl/min)				
		1	3	10	30	100
		Flow rate range 0.01 – 10	Flow rate range 0.03 – 30	Flow rate range 0.1 – 100	Flow rate range 0.3 – 300	Flow rate range 1 – 1000
Dynamic viscosity of selected liquid (cP)	1 e.g. water at 20 °C	F1	F3	F10	F30	F100
	3 blood at 37 °C	F3	F10	F30	F100	
	10 25% wt CaCl sol. at 20 °C	F10	F30	F100		
	30 vegetable oil at 40 °C	F30	F100	Out of range		
	100 light machine oil at 20 °C	F100				