## LO-Pulse Pulse Damper

## **Product Information**



## **Reduce Baseline Noise — Produce Better Chromatograms**

The LO-Pulse® pulse damper is a patented, wide dynamic range device that smoothes pulsations and maintains constant flow at system pressures up to 6000psi. The damper reduces pulsations by compressing a fluid held within a chamber in the unit. This fluid is isolated from the mobile phase by a durable but flexible inert diaphragm. As system pressure increases

during the pump delivery stroke, fluid in the chamber is compressed. When the pump begins its refill stroke, the compressed fluid expands, keeping the mobile phase flowing at a nearly constant rate and maintaining system pressure. At its maximum rated pressure of 6000psi, the volume of mobile phase in the pulse damper is only 0.9ml. The flow path is designed to ensure it is completely swept so that solvent "memory effects" are virtually non-existent when changing mobile phases.

The pulse damper is also available in a space-saving, low-cost kit form (bottom image). The kit includes attaching hardware and allows mounting the pulse damper on a bracket or installing feet for benchtop use.

Available in either 316 stainless steel or biocompatible, metal-free PEEK (polyetheretherketone).

Constant-displacement reciprocating pumps have intervals in their pumping cycle when flow and pressure momentarily decrease. This "offtime" is the interval when the piston has finished its solvent delivery stroke and is starting to refill. To maintain constant flow, such pumps require a pulse compensator or damper that stores energy during the pumps' delivery stroke and returns an appropriate amount of work to the fluid during the pump offtime.

Several types of mechanical or hydraulic pulse dampers are available. Pulse dampers that use a compressible fluid separated from the mobile phase by a flexible inert diaphragm offer several advantages over other types, including facile mobile phase changeover, effectiveness at low system pressure, wide dynamic range, and minimal dead volume.

Description	Part No	Qty	Price
LO-Pulse Pulse Damper, Stainless Steel	200218	Each	
LO-Pulse Pulse Damper, PEEK	200220	Each	
LO-Pulse Pulse Damper, Stainless Steel (Low cost kit version)	120527	Each	
LO-Pulse Pulse Damper, PEEK (Low cost kit version)	120537	Each	
LO-Pulse Pulse Damper refurbishing kit. Includes diaphragm, O-rings, tools and instructions.	120139	Each	

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International Co. for Lab. Instruments 45 Shalhoub st. Ain Shams, Cairo, Egypt Post Code 11311 +202 24916139 or +202 24916139