



Eldex[®]

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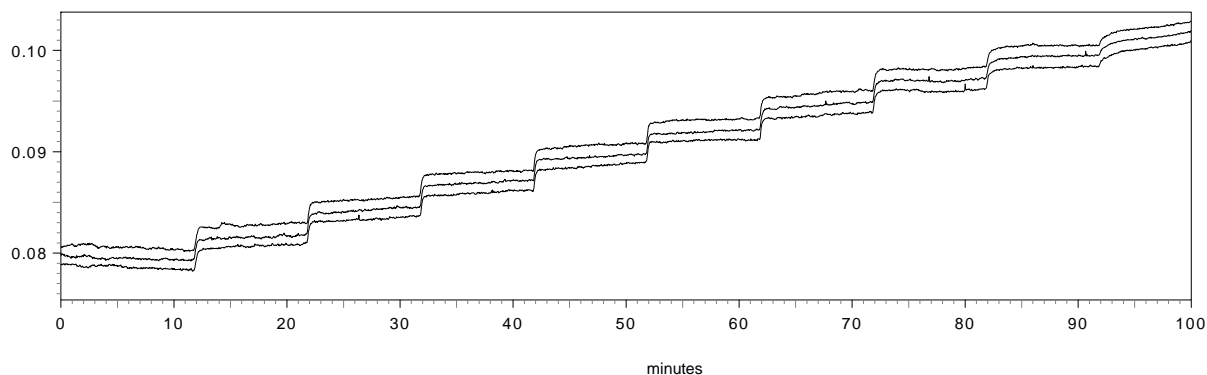
Application Note

MicroPro™ Pump: Flow Precision

2 μ L/min. step gradients

Precise gradient formation using individual syringes for each solvent are largely a function of accurate motor control and carefully designed mixing chambers. Figure 1 illustrates the precise motor control using the μ Pro at very low flow rates. The output of the syringes is joined at a tee, without any additional mixing chamber. By using micro-stepping in 0.1 nanoliter increments, motor (and therefore solvent composition) control is reproducible, even at extremely low flow rates.

Figure 1: Replicate step gradients at 2 μ L/min.



Conditions:

Pump: MicroPro 2mL syringe pump
Solvents: A = water
 B = 2% acetone in water
Mixer: in-line T
Gradient: Step; 10% increments every 10 min.
Flow Rate: 2 μ L/min.
Detector: UV @ 210nm w/ LC Packings U-Z View™ capillary flowcell (35nL)