

Low-Rate Extender

Deliver high-accuracy metering of Vx Spectra surface multiphase flowmeter for the life of the well

-  **Maintain high-accuracy metering**
-  **Reduce capex and nonproductive time**
-  **Increase meter turndown ratio**
-  **Extend operational envelope**

Where it is used

- Production
- Multiphase flow rate measurement
- Conventional mature wells
- Aging unconventional shale wells

How it maintains flow rate accuracy

The need for continuous, accurate production metering for the life of the well is critical, even when wells have reached significant production decline. The low-rate extender is a cost-efficient solution that expands the operating envelope of the Vx Spectra* surface multiphase flowmeter to maintain high-accuracy metering in depleting wells.

How it works

Multiphase flowmeters are sized for specific flow rate ranges before installation. Over time, with production decline, the differential pressure across the venturi section may become so low that flow rate accuracy can degrade. And the standard turndown ratio of multiphase flowmeters traditionally requires replacing the meters with a smaller size after production decline.



The 29-mm Vx Spectra flowmeter is easily retrofittable with the low-rate extender to maintain high-accuracy metering in depleting wells.

The efficient low-rate extender increases the turndown ratio of the Vx Spectra flowmeter to extend its operational lifetime while eliminating the need to downsize and replace an existing flowmeter, minimizing capex and nonproductive time. The low-rate extender reduces the cross-sectional area at the Vx Spectra flowmeter venturi throat, thus increasing the measured differential pressure for low flow rates and maintaining measurement accuracy for the life of the well.

What else I should know

Designed to withstand vibration and erosion, the low-rate extender is lightweight and compact, making it easy to retrofit a new or existing 29-mm Vx Spectra flowmeter venturi throat to ensure high metrological performance.

A special multiphase flow model was developed for Vx Spectra flowmeter software and validated with multiple flow loop tests.

Vx Spectra Flowmeter Low-Rate Extender Specifications

Vx Spectra flowmeter venturi size compatibility	29 mm
Vx Spectra flowmeter venturi size with low-rate extender	19 mm
Material	UNS S31803 (duplex stainless steel) or UNS N06625 (INCONEL® 625)
Dimensions (L × H × W)	8.2 × 11.1 × 8.2 in [208 × 282 × 208 mm]
Weight	18.7 lbm [8.5 kg]

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