



Flow Products Overview



March 20, 2014

Flow Product Overview



- Ranges from:
 - 0 - 5 SCCM to
 - 0 - 15,000 SLM
- Analog and Digital models
- Extensive product offering to cover a wide range of applications

200 Series



- Ranges
 - HFM-200/HFC-202
 - Min: 0 – 10 SCCM N2
 - Max: 0 – 25 SLM N2
 - HFM-201/HFC-203
 - Up to 1,000 SLM N2
 - HFM-205/HFC-207
 - Up to 2,500 SLM N2
- Simple / reliable design
- Average response time, but very stable
- Optional 24 vdc input power

HFM-200 with LFE



- LFE: Laminar Flow Element
- Ranges
 - Up to 15,000 SLM N2
- Uses HFM-200
- Accuracy: $\pm 1\%$ FS
- Low pressure drop

300 Series



- Ranges
 - HFM-300/HFC-302
 - Min: 0 – 5 SCCM N2
 - Max: 0 – 25 SLM N2
 - HFM-301/HFC-303
 - Up to 1,000 SLM N2
 - HFM-305/HFC-307
 - Up to 2,500 SLM N2
 - HFM-306
 - Up to 8,000 SLM N2 @ $\pm 3\%$ FS
- Accuracy: $\pm 1\%$ FS*
* $\pm 0.75\%$ for FS below 10 SLM
- Fast response time
- Metal seals on HFM-300 & 305
 - Kalrez valve seat on HFC-302
- Lower dP than 200 Series
- Foldover protection

March 20, 2014

Digital 300 Series



- Ranges
 - HFM-D-300/HFC-D-302
 - Up to 25 SLM N2
 - HFM-D-301/HFC-D-303
 - Up to 1,000 SLM N2
 - HFM-D-305/HFC-D-307
 - Up to 2,500 SLM N2
- Based on 300 Series
- Accuracy:
 - $\pm (0.2\% \text{ FS} + 0.5\% \text{ Rdg})$
- RS232 / RS485
- $\pm 12, \pm 15, 24 \text{ vdc}$
- Many built-in features
 - Totalizer, multiple gas calibration

March 20, 2014

NEW



- New Size
- HFC-D-308
 - FS Ranges to 8,000 SLM N2
- All Digital 300 series features
- Tuned Valve Response

March 20, 2014

Power Pods / Power Supplies



- THPS-400
 - Up to Qty(4) HFM or HFC
 - RS232/RS485
 - Ratio control
 - Totalizer



- THCD-100
 - One HFM or HFC
 - RS232

THCD-100 Power Supply

THCD-100

- Comparable to THPS-100
- New Features
 - Provides Output Power
 - ± 15 VDC @ 250 mA
 - 24 VDC @ 300 mA
 - Analog Signals
 - 0 – 5 vdc
 - 0 – 10 vdc
 - User Friendly Menu
 - Easy to re-range
 - 2 mechanical changeover relays (max 50VDC)
 - Separate UL Approved Power Transformer with changeable plugs



March 20, 2014