

Application Note



AN 001 – Burner Control



M+W Instruments™ offers mass flow meters with a close coupled motorized valve for integrated control of flows **up to 5000 l/min** Air equivalent.

Our digital **D-6300 MASS-STREAM™** series is available with several options like a multi-functional display or additional interfaces.

Industrial sectors:

- Glass
- Ceramics
- Metal
- Waste incineration
- Heat treatment
- Burner
- ...

Application requirements:

- Valve should “stay in position” in case of a power failure
- Flows up to 5000 l/min Air equivalent
- 24 h steady continuous process
- K_v - value up to 4.4
- $P_{max} = 16 \text{ bar (g)}$

Optional features:

- Multi-functional display including:
 - Actual flow [unit]
 - Totalizer
 - Set point via display (requires digital pre-settings)
 - Alarm
- Additional interfaces
- Degreased instruments for O_2 applications
- Pressure rating P_1 up to 20 bar (g)



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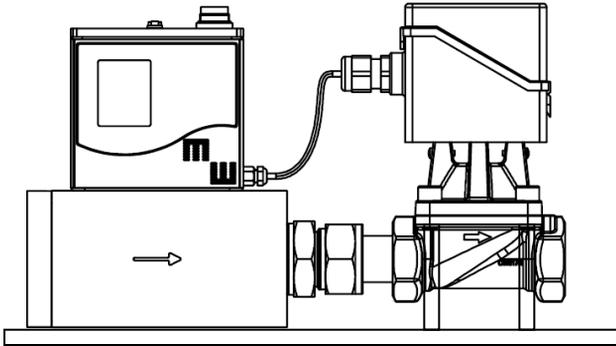
Market Segment:

CM/ST/AN/EN/GP

Issue date:

01/2015

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MFC D-6383

In burner controls and similar applications customers need to maintain the gas supply even in case of complete power failures to avoid expensive oven shut-downs etc.

The valve **stays in position (= fails in place)** in case of a power blackout.

These applications often do not need high control speed from 'fully closed' to 'fully open' due to 365 days - 24 hour steady continuous process. So the control speed is sufficient in comparison to direct operated valves. These control valves are not shut-off valves and they are not 100% gastight.



MFM D-6380

Also available as a Mass Flow Meter D-6380 only for mass flow measurement or gas consumption without control function.

Summary of valve features:

- Two models are available:
 - standard
 - degreased for oxygen applications
- Operating pressure **up to 16 bar (g)** on request
- $\Delta P_{max.}$: 16 bar (d)
- Body Material : Brass
- Classification : IP-54
- Valve function : stays in position (= fails in place)
- Motor module can be replaced without disassembling the valve
- Table of K_v -values and connection size of different valves:

Valve	$K_{v\ max.}$	Connection size
BJ 1.1	1.1	G 1/2
BJ 2.8	2.8	G 1
BJ 3.4	3.4	G 1/2
BJ 4.4	4.4	G 1

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