Description
The MATHESON Model 8284A is a state-of-the-art, microprocessor-based, high performance readout for mass flow meters & controllers. The 8284A has an integral ±15 VDC @ 250 mA power supply, per channel, for sensor power. It accepts 5 VDC or 4-20 mA input signals, user selectable, that can be digitally calibrated and displayed in engineering units for flow, i.e. sccm or slpm. Calibration can be performed using the front panel pushbutton switches or via the RS-232 or RS-485 serial com ports.

The 8284A utilizes a Real Time Operating System (RTOS) for real time Multitasking capabilities. This allows continuous monitoring of each channel's flowrates, total flow and set points regardless of the task being performed. A 16-bit multi-channel, high speed sigma-delta analog-to-digital converter provides accurate flowrate data. A 32K x 8 battery backed RAM stores all pertinent data required to re-initialize the system after power-up.

Ratio control is user selectable for master/slave (gas blending) operation. Channel 1 is always the master and any of the other 3 channels may be set as slaves. The master/slave arrangement utilizes the actual flowrate of Channel 1 as the master signal.

A set point signal is used with flow controllers to generate an analog control signal. A 0-5 VDC or 4-20 mA, user selectable, set point signal is generated, scaled proportionally to the full scale CAL value. The user simply sets the set point value via the front panel switches or using the serial communication port and the 8284A does the rest.

Features & Benefits
- Microprocessor-based smart readout, power supply and controller
- Designed specifically for Mass Flowmeters and Mass Flow Controllers
- (2) alarm set points (1) high and (1) low for each channel activate opto-isolated, open collector transistor outputs for driving relays

Specifications

**INPUTS**
- Number of Inputs: 4
- Signal Type: 0-5 VDC, +/-10 VDC, 4-20 mA

**SET POINT OUTPUTS (EACH CHANNEL)**
- Signal Type: 0-5 VDC, +/-10 VDC, 4-20 mA
- Accuracy: +/-0.05% Voltage, +/-0.1% current
- Analog-to-Digital Converter: Sigma Delta
- Resolution: 16-bits Bi-Polar
- Speed: 100 Hz (max)

**TOTALIZER (EACH CHANNEL)**
- Technique: Integrated (Riemann Sum) Value
- Time Base (Quartz): 20 MHz
- Accuracy: +/-30ppm (typ)
- Display: 999,999 (max)

**MASTER/SLAVE (GAS MIXING MODE)**
- Master: CH1 Flow Signal
- Slave: CH2, CH3, CH4 (user selectable)

**UNITS OF MEASURE AND GAS ID**
- Units of Measure: 66 stored units of measure
- Gas ID: 191 stored Gas ID

**VALVE OVERRIDE SIGNALS (DEPENDENT ON MFC MODELS)**
- Front Panel Switch controllers: Valve ON (Purge) Not active on 829 series
- Activated controllers: Valve OFF (Close) Not active on 829 series

**MICROPROCESSOR**
- Type: 80 C32
- Speed: 20 MHz
- Operating System: RTOS with multitasking
- Non-Volatile Memory: 32 k x 8 battery backed ram

**SERIAL COMMUNICATIONS**
- RS-232: Bi-Directional
- RS-485: Full Duplex
- Baud Rates: 9600 or 192 k baud

**MFC POWER SUPPLY (EACH CHANNEL)**
- Voltage: +15 VDC, -15 VDC
- Current: 250 mA each

**INPUT POWER**
- Voltage: 100/115/230 V~
- Current: 500 mA (typ)

**FUSE**
- 1 amp slow blow (time delay)

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**Model 8284A Dynablender-Plus**

*4 Channel Mass Flow Digital Controller / Readout*

*New with 4 x 20 Character Easy to Read OLED Display*

- 100/115/230 V~ rear panel switch selectable power inputs
- Rack or bench mountable using the retractable stand
- ±15 VDC @ 250 mA sensor power for each of (4) MFC’s
- 4-Channel flowrate or totalizer display
- Gas blending (master/slave) mode
- Gas correction scale factor input
- Valve override (on/off) signals (depending on which model controllers are used with the 8284A)

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**Ordering Information**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEQ 8284A</td>
<td>8284A 4 Channel controller w/ 8’ cable, 15 pin “D” x RJ-45 connector</td>
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</tbody>
</table>

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<tr>
<th>Model Number</th>
<th>Cable Length</th>
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</thead>
<tbody>
<tr>
<td>SEQ CBL053508</td>
<td>8 ft (STANDARD CABLE)</td>
</tr>
<tr>
<td>SEQ CBL053625</td>
<td>25 ft</td>
</tr>
<tr>
<td>SEQ CBL053750</td>
<td>50 ft</td>
</tr>
<tr>
<td>SEQ CBL0538100</td>
<td>100 ft</td>
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</tbody>
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**Individual Cables and Additional Signal Cable Lengths**

**15 PIN “D” x RJ-45 TRANSDUCER CONNECTOR**

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