



M Series

Conductivity Switch



M3784

Madison Company's conductivity switch is the current choice for heavy-bodied or semisolid liquids.

Madison supplies a basic controller with the M3784 that will satisfy a broad range of applications. Because the conductivity varies widely among liquids, the controller is adjustable for sensitivity in different liquids. Consult factory for details on specific liquids.

While a conductivity switch and a float-type switch provide the same functions, the advantage of no moving parts is that the conductivity switch can be used in several environments that would cause a float to stick or to not operate at all. These would include semisolid liquids like food industry and industrial slurries or heavy-bodied liquids like wastewater. With no moving parts, switch operation of the M3784 is not interrupted.

Only an extremely small amount of current is necessary for the unit to perform. As with any device, a properly installed and grounded system poses no electrical hazard.

Features

- Sensitivity-adjustable controller
- No moving parts
- Safe operation
- Controls up to two levels with controller
- NPT fitting (bulkhead or flange-type fitting available)
- One to three electrodes, depending on tank material and number of functions required
- Electrodes are 1/8" diameter 316 Stainless Steel; all wetted materials are food-grade
- Standard 24" electrode can be cut by end user to shorter length; two 24" extensions can be added for a maximum recommended length of 72"

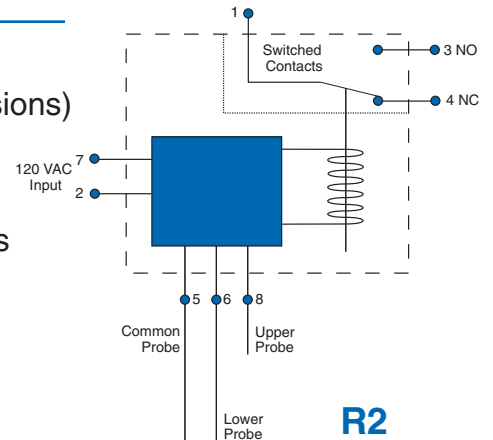
Model No.	Voltage
M3784-12	12 AC
M3784-110	110 AC
M3784-220	220 AC
M3784-2	no controller

For installation instructions, please visit www.madisonco.com

Specifications

Sensing Head

Electrodes	24" length, standard 72" length, maximum (with two extensions) May be cut to custom length
Materials	316 Stainless Steel electrodes Polypropylene all food-grade materials
Mounting	1" NPT, standard Bulkhead or snap-in flange optional
Pressure	30 PSIG, maximum
Temperature	100°C, maximum (212°F)
Other	Integral junction box with IP68 (NEMA 6) protection 10' cable for attaching sensing head to controller



R2

R2 Conductivity Configuration

- 120 VAC is connected between pins 2 and 7
- Wire the Common Probe to pin 5
- Wire the Lower Probe to pin 6
- Wire the Upper Probe to pin 8

Pins 1-3 and 1-4 are isolated switch contacts to switch power to a valve or pump.

For single level control, connect probe to pin 8 and use pin 5 as the return.

Output Contact Rating

(1-3 or 1-4)

5A @ 220 VAC
10A @ 120 VAC
10A @ 30 VDC

Controller

Model No.	R2-120 (Refer to Accessories section for more information)
Sensing Inputs	3 maximum (High, Low, Common)
Sensing Voltage	12 VAC
Sensing Resistance	Adjustable to 100,000 Ohms
Input	120 VAC 50/60 Hz
Output	Contact rating 5 Amps resistive @ 240 VAC, form SPDT
Mounting	Socket mount, socket is DIN rail-mountable



Conductivity Switch Kit
M3784-110MK

Options

- Electrode extensions, two each, 24" length, with coupling nuts and electrode spreader
- Single electrode fitting with 24" electrode

All specifications are subject to change without notice.



Sensor solutions for today and the future™



Madison Company 800-466-5383 www.madisonco.com

27 Business Park Drive, Branford, CT 06405 • 203-488-4477 • Fax: 203-481-5036 • E-mail: info@madisonco.com
Madison Europe – Phone: + 31 (0) 548 659 034 • Fax: + 31 (0) 548 659 010 • E-mail: europe@madisonco.eu