

ELECTRICAL CONTROLS

Level Controls

How to Select Liquid Level Switches

Consider the type of liquid, temperature, and pressure to which the switch will be subjected:

316 Stainless Steel—For high temperature (to 200°C), high pressure (to 300 psi), and corrosive conditions.

Polypropylene—For acidic conditions commonly found in electroplating and metal cleaning. A good choice for lower temperature (to 105°C) food processing and general purpose applications.

Buna N, Brass, and Buna N PBT—For petroleum-based liquids such as lubricating oils, gasoline, and diesel fuels in storage tanks of vehicles, generators, transmissions, and hydraulic systems. Note: PBT is not suitable for use in water above 65°C.

Kynar—Its high-purity nature and chemical- and solvent-resistant properties are ideal for food handling and sensitive lab or test equipment.

Liquid Level Switches

These highly reliable switches are used for alarm circuits that control motor starters, contactors, solenoids, and relays. They feature advanced sensing technologies to assure accurate and dependable liquid level control to meet specific application needs. Every Madison float switch contains a dependable dry reed switch encapsulated within a stem. When operated at their rated electrical load, they deliver more than 5 million switching cycles.

VERTICAL MOUNT

NO/NC operation is indicated by the position of the witness mark (stainless steel models) or

magnets (plastic models). NO is indicated by circle up (stainless steel) or magnets down (plastic); NC is indicated by circle down (stainless steel) or magnets up (plastic). No. 2A554 is rated explosionproof by UL and CSA Certified for use in hazardous locations.

HORIZONTAL MOUNT

NO/NC operation is indicated by the direction of the arrow on the float. NO is indicated by arrow up; NC is indicated by arrow down. No. 2ZY92 has direct switching ability to control a pump without the use of intermediate relays.



Fitting	VA Rating	Max. Temp. (°C)	Max. Pressure (psi)	Operation	Overall Length (In.)	Float Material	Float Length (In.)	Float Dia. (In.)	Stem Material	Stem Length (In.)	Madison Model	Item No.	\$ Each	Shpg. Wt.
Liquid Level Switches, Vertical Mount														
1/8" NPT	30	200	300	NO/NC	2.25	316 SS	1	1.13	316 SS	1.63	M5000	4YM31	43.65	0.1
1/8" NPT	30	105	150	NO/NC	2.25	Buna N	1	1	PBT	1.63	M7000	4YM35	18.18	0.1
1/8" NPT	30	105	100	NO/NC	2.25	Polypro	1	1	Polypro	1.63	M8000	2A554	11.55	0.1
1/8" NPT	30	105	15	Open On Rise	2.25	Kynar	1	1	Kynar	1.63	M9000	2ZY35	31.35	0.1
1/8" NPT	30	105	150	Open On Rise	2.25	Buna N	1	1	PBT	1.63	MS7000	2ZY42	25.00	0.1
1/8" NPT	30	105	100	Open On Rise	2.25	Polypro	1	1	Polypro	1.63	MS8000	2ZY43	20.55	0.1
1/8" NPT	30	105	15	Open On Rise	2.25	Kynar	1	1	Kynar	1.63	MS9000	2ZY45	41.20	0.1
1/4" NPT	60	105	150	NO/NC	3.38	Buna N	2	1.25	Brass	2.63	M4300	2A553	31.55	0.2
1/4" NPT	60	200	200	NO/NC	3.38	316 SS	2	2.13	316 SS	2.63	M5600	2A551	46.00	0.3
1/4" NPT	100	200	500	NO/NC	3.38	316 SS	2	2	316 SS	2.63	M5600-PR	4YM33	72.65	0.3
1/4" NPT	60	250	200	Open On Rise	3.38	316 SS	2	2.13	316 SS	2.63	M5917	2ZY27	52.30	0.3
1/4" NPT	60	250	200	Open On Rise	3.38	316 SS	2	2.13	316 SS	2.63	M5917	2ZY41	71.15	0.6
1/4" NPT	60	105	100	NO/NC	3.38	Polypro	2	1.5	Polypro	2.63	M8800	2A552	43.70	0.1
1/4" NPT	60	105	100	Open On Rise	3.38	Polypro	2	1.5	Polypro	2.63	MS8800	2ZY44	49.00	0.2
3/8-16 THD	15	105	50	NO/NC	1.88	Polypro	0.63	0.58	Polypro	1.25	M3326	4YM29	20.72	0.1
3/8-16 THD	15	105	50	Close On Rise	1.88	Polypro	0.63	0.58	Polypro	1.25	M3326-NO	4YM30	20.72	0.1
3/4" PVC Pipe	30	60	50	Open On Rise	1.99	Polypro	1	1	PVC	1.55	M8000C	2ZY91	15.91	0.2
Liquid Level Switches, Horizontal (Side) Mount														
1/8" NPT	30	200	50	Open On Rise	5.12	316 SS	1	1.54	316 SS	5.77	M3827-3	2ZY22	90.35	0.1
1/8" NPT	30	200	50	Close On Rise	5.25	316 SS	1	1.54	316 SS	5.25	M3827-3NO	2ZY23	90.35	0.2
1/4" x 1/2" NPT	30	200	300	NO/NC	4.6	316 SS	—	—	316 SS	4.6	M5910	2ZY26	118.55	0.3
1/4" x 1/2"	30	105	100	NO/NC	3.7	Polypro	—	—	Polypro	2.75	M8710	2ZY34	21.46	0.1
3/8-24 THD	30	105	100	Open On Rise	2.96	Buna N	1	1	Brass	4.57	M4010	2ZY24	42.20	0.2
3/8-24 THD	30	105	100	Open On Rise	4.57	Buna N	1	1	Brass	2.96	MS4010	2ZY39	58.75	0.2
3/8-24 THD	30	200	300	Open On Rise	4.57	316 SS	1.19	1.13	316 SS	2.96	M55010	2ZY40	55.65	0.4
3/8-24 THD	30	200	300	NO/NC	4.57	316 SS	1	1.13	316 SS	2.96	M5010	4YM32	42.55	0.1
1/2-13 UNC THD	30	200	100	NO/NC	3.19	316 SS	—	—	316 SS	1.8	M5970	2ZY28	67.75	0.3
1/2" x 1" NPT	30	200	300	NO/NC	4.6	316 SS	—	—	316 SS	4.6	M5900	2ZY25	135.50	0.7
1/2" x 1"	30	105	100	NO/NC	2.84	Polypro	—	—	Polypro	2.84	M8705	2ZY33	41.20	0.2
1/2" x 1"	30	105	100	NO/NC	2.84	Kynar	—	—	Kynar	2.84	M9705	2ZY37	70.70	0.2
1/2" NPT	30	200	50	Close On Rise	5.25	316 SS	1	1.54	316 SS	5.25	M3827-2NO	2ZY21	90.35	0.3
1/2" NPT	30	130	100	NO/NC	2.75	PBT	—	—	PBT	2.75	M7750	2ZY31	22.73	0.1
1/2" NPT	30	200	50	Open On Rise	5.12	316 SS	1	1.54	316 SS	5.77	M3827-2	2ZY20	90.35	0.3
1/2" NPT	30	130	100	NO/NC	2.75	PBT	—	—	PBT	2.75	M7725	2ZY29	23.99	0.1
1/2" NPT	30	105	100	NO/NC	2.75	Kynar	—	—	Kynar	2.75	M9700	2ZY36	42.45	0.1
1/2 x 1/2"	30	200	300	NO/NC	4.5	316 SS	—	—	316 SS	4.5	M5920	4YM34	136.00	0.3
1/2 x 1/2"	30	105	100	NO/NC	2.75	PBT	—	—	PBT	2.75	M7700	4YM36	22.48	0.1
1/2 x 1/2"	30	105	100	NO/NC	2.75	Polypro	—	—	Polypro	2.75	M8700	2XC13	15.50	0.1
1/2" or 3/4" NPT	30	105	100	NO/NC	2.75	Polypro	2.06	0.5	Polypro	2.75	M8700C	2ZY93	21.46	0.1
5/8-11 UNC THD	30	105	100	NO/NC	3.31	Polypro	—	—	Polypro	3.31	M8790-14/184	2ZY83	8.59	0.1
5/8-11 THD	30	130	100	NO/NC	4.02	PBT	—	—	PBT	2.84	M7790	2ZY32	24.75	0.1
5/8-11 THD	30	105	100	NO/NC	4.02	Polypro	—	—	Polypro	2.84	M8790	4YM37	15.50	0.1
3/4-16 x 7/8-14 THD	30	130	100	NO/NC	4.3	PBT	—	—	PBT	3.31	M7740	2ZY30	28.05	0.1
1" NPT	100	150	150	SPDT	9.26	304 SS	3	1	304 SS	9.26	M4190	2ZY84	231.50	0.9
1" NPT	100	105	100	SPDT	7.88	Buna N	3	0.92	Buna N	7.88	M4190-BU	2ZY86	231.50	0.9
1" NPT	100	150	900	SPDT	7.43	304 SS	2.04	2.04	304 SS	7.43	M4190-HP	2ZY85	231.50	0.9
1 1/2" NPT	20A	125	100	SPDT	5.5	304 SS	3	1.5	304 SS	5.5	M4065	2ZY92	303.00	3.1
Bracket	60	110	5	Open On Rise	3.89	316 SS	2	2.13	316 SS	3.89	MSB5600	2ZY47	101.65	1.3
Bracket	60	105	100	Open On Rise	3.89	Polypro	2	1.5	Polypro	3.89	MSB8800	2ZY48	78.30	0.6

(*) 18-gauge wire. (†) 6-ft. cable. (‡) 1/4" spade connector.