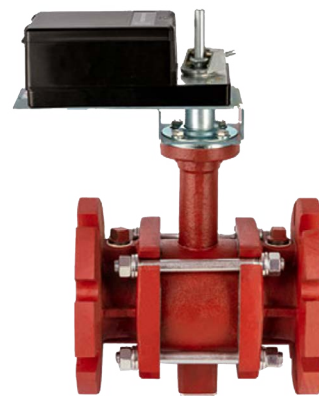




2-WAY VALVE

Maplef MF3UR

Actuated Control Valves
DN100-150 / 4"-6"



SPECIFICATIONS

Valve:

Static pressure:	1600 kPa / 240 psi
Ambient temperature:	-20°C to +50°C / -4°F to +122°F
Media temperature:	-20°C to +120°C / -4°F to +248°F
Material:	
- Housing:	Cast iron ASTM A395, 60-40-18 Valve is uni-directional, hence no flow direction arrow applies.
- Stem:	Stainless steel
- Ball valve:	Stainless steel
- Seals, stem:	EPDM O-rings
- Seals, ball:	Teflon seals
Rotation:	0°-90°
Shut-off leakage:	Maximum close-off pressure: 500 kPa / 70 psi
End connections:	ANSI / FCI 70-2 2006, Class IV / IEC 60534-4, Class IV Universal flange connections which can be used with both ISO and ANSI flanges. Mounting kits are not supplied by Maplef



2-WAY VALVE

Maplef MF3UR

Actuated Control Valves
DN100-150 / 4"-6"

SPECIFICATIONS (...continued)

Maplef Actuator ²	MTM000	MTM020	MTT000	MTT020	MTT300	MTT320
Supply voltage	24V AC / 30V DC		24V AC / 30V DC		230V AC	
Type	Electrical, bi-directional motor					
Power consumption	8VA		8VA		10VA	
Control signal	Analog 2-10V DC or 4-20mA		Digital 2-position / 3-point floating		Digital 2-position / 3-point floating	
Feedback	Analog 2-10V DC or 4-20mA		No		No	
Failsafe function	Fail in place		Fail in place		Fail in place	
Auxiliary switches	No	Yes	No	Yes	No	Yes
Operation time	60-85 sec		60-85 sec		60-85 sec	
Ambient temperature	-18°C to +50°C / 0°F to +122°F					
Humidity rating	5..95% rH, no condensation					
Protection	IP22 / NEMA2, indoor use only - upgradable to IP54 / NEMA3R					
Cable (supply)	Not included, recommended 0.82 mm2/AWG18		Not included, recommended 0.82 mm2/AWG18		Not included, recommended 0.82 mm2/AWG18	
Cable (aux.)	-	Fixed 6 x 0.82 mm2, 1 m / 6 x AWG18, 3.3 ft	-	Fixed 6 x 0.82 mm2, 1 m / 6 x AWG18, 3.3 ft	No	Fixed 6 x 0.82 mm2, 1 m / 6 x AWG18, 3.3 ft
Weight	2.0 kg / 4.5 lb		2.0 kg / 4.5 lb		2.3 kg / 5.0 lb	

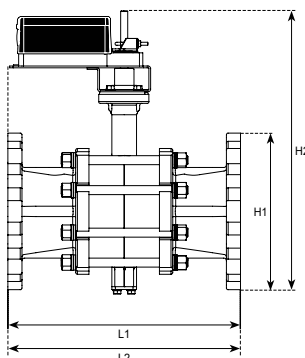
Note 2: Maplef recommends actuators supplied by Maplef

DIMENSIONS AND WEIGHTS (NOMINAL)

Model no.	Valve size mm (in)	L1 mm (in)	L2 ² (max. length) mm (in)	H1 mm (in)	H2 mm (in)	D (depth, not shown) mm (in)	Weight ³ kg (lb)	Kv m ³ /hr
MF3UR.J.x	100 (4)	279 (11.0)	338 (13.3)	229 (9.0)	478 (18.8)	229 (9.0)	29.5 (65)	79 102 132 170 220
MF3UR.K.x	125 (5)	315 (12.4)	363 (14.3)	254 (10.0)	483 (19.0)	254 (10.0)	34.0 (75)	125 160 208 267 346
MF3UR.L.x	150 (6)	353 (13.9)	384 (15.1)	279 (11.0)	505 (19.9)	279 (11.0)	40.8 (90)	180 232 299 382 499 562

Note 2: L2 is maximum length, which is measured to end flange or mounting plate, whichever extends further.

Note 3: Weight does not include actuator





2-WAY VALVE

Maplef MF3UR

Actuated Control Valves

DN100-150 / 4"-6"

FLANGE MATCH

Model no.	Flange size (inch)	ASME B16.1	ASME B16.5	Flange size (mm)	EN 1092-1			
		Class 125	Class 150		PN10	PN16	PN25	PN40
MF3UR.J.x	4	✓	✓	100	✓	✓	✓	✓
MF3UR.K.x	5	✓	✓	125	✓	✓	✓	✓
MF3UR.L.x	6	✓	✓	150	✓	✓	✓	✓

MODEL NUMBER SELECTION

MF3UR L . S . 1

Valve size:

J = DN100 / 4"

K = DN125 / 5"

L = DN150 / 6"

Kv ID-number:

1, 2, 3, 4, 5 or **6** (see flow rate table page 5)

Actuator

1 = Maplef (standard)

Control mode:

0 = no actuator

10 = 24V, digital

20 = 230V, digital

40 = 24V, digital incl. aux.switches

50 = 230V digital incl. aux.switches

60 = 24V modulating incl. aux.switches

70 = 24V modulating

ID tag

Leave blank = no ID tag

T = ID hanging tag

Example:

MF3UR.J.3.L.S.1.10 = Maplef 2-way, DN100 (4") with Kv=132 m³/hr and Maplef 24V digital actuator, without hanging ID tag.



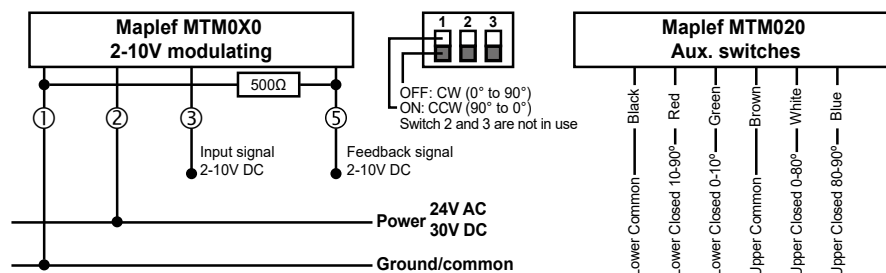
2-WAY VALVE

Maple MF3UR

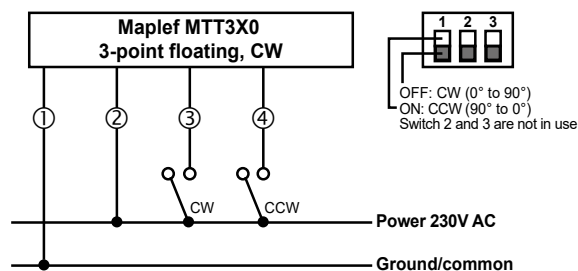
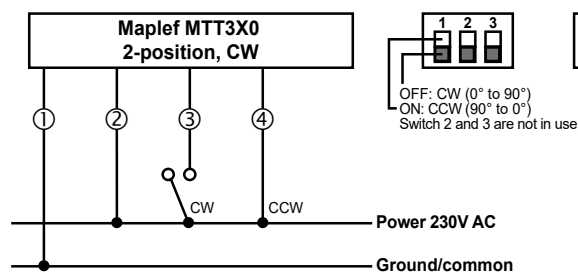
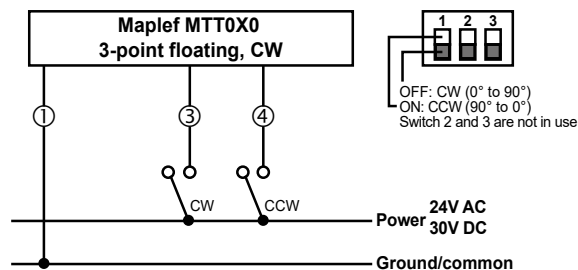
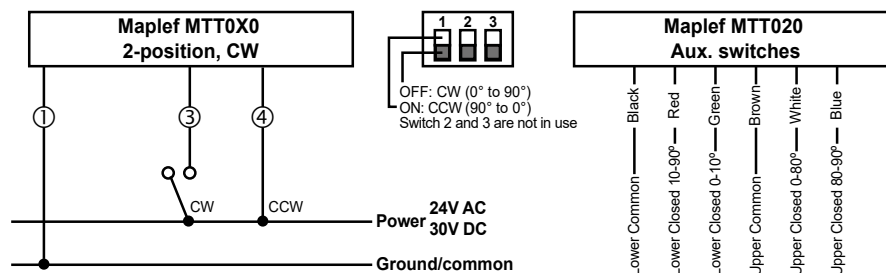
Actuated Control Valves
DN100-150 / 4"-6"

WIRING INSTRUCTION

Maple MT Actuator (Analog)



Maple MT Actuator (Digital)



2-WAY VALVE

Maplef MF3UR

Actuated Control Valves

DN100-150 / 4"-6"



Kv SELECTION AND FLOW RATE TABLE

Valve size mm (in)	Model no	Close-off pressure ⁴ bar	Flow rate (l/hr) at stated pressure drop (kPaD) across valve												Kv ⁵ m ³ /hr	Kv ID-no
			5	10	15	20	25	30	40	50	60	70	80	90		
100 (4)	MF3URJ.1	5	17700	25000	30600	35300	39500	43300	50000	159000	61200	66100	70700	74900	79	1
	MF3URJ.2		22800	32300	39500	45600	51000	55900	64500	55900	79000	85300	91200	96800	102	2
	MF3URJ.3		29500	41700	51100	59000	66000	72300	83500	72100	102000	110000	118000	125000	132	3
	MF3URJ.4		38000	53800	65800	76000	85000	93100	108000	93300	132000	142000	152000	161000	170	4
	MF3URJ.5		49200	69600	85200	98400	110000	120000	139000	120000	170000	184000	197000	209000 ⁶	220	5
125 (5)	MF3URK.1	5	28000	39500	48400	55900	62500	68500	79100	156000	96800	105000	112000	119000	125	1
	MF3URK.2		35800	50600	62000	71600	80000	87600	101000	88400	124000	134000	143000	152000	160	2
	MF3URK.3		46500	65800	80600	93000	104000	114000	132000	113000	161000	174000	186000	197000	208	3
	MF3URK.4		59700	84400	103000	119000	134000	146000	169000	147000	207000 ⁶	223000 ⁶	-	-	267	4
	MF3URK.5		77400	109000	134000	155000	173000	190000	219000 ⁶	189000	-	-	-	-	346	5
150 (6)	MF3URL.1	5	40200	56900	69700	80500	90000	98600	114000	-	139000	151000	161000	171000	180	1
	MF3URL.2		51900	73400	89900	104000	116000	127000	147000	127000	180000	194000	208000 ⁶	220000 ⁶	232	2
	MF3URL.3		66900	94600	116000	134000	150000	164000	189000	164000	-	-	-	-	299	3
	MF3URL.4		85400	121000	148000	171000	191000	209000 ⁶	-	211000 ⁶	-	-	-	-	382	4
	MF3URL.5		112000	158000	193000	223000 ⁶	-	-	-	-	-	-	-	-	499	5
	MF3URL.6		126000	178000	218000 ⁶	-	-	-	-	-	-	-	-	-	562	6

Note 4: Close-off pressure measured with 10 Nm actuator for DN100/125 and 15 Nm for DN150 up to 159000 l/hr and for larger flow rates a 20Nm actuator is used. The close-off pressure is the maximum allowable pressure drop across the valve housing when the valve is fully closed.

Do not use actuators with torque higher than 20 Nm.

Note 5: Kv is defined as the quantity of water in m³/hr at 15°C that will flow through a given valve with a pressure drop of 1 bar.

Hence, the Kv values above are equivalent to 1 bar ΔP.

Note 6: Due to high velocity, flow rates of 204000 l/hr and higher may result in water noise.

ACCESSORIES

Watertight bushing: 1C50007

GENERAL SPECIFICATIONS

ACTUATED CONTROL VALVE - MAPLEF 2 WAY VALVE

- 1.1. Contractor shall install control valves where indicated in drawings.
- 1.2. Control valve shall include a universal mounting plate.
- 1.3. Control valve shall include blow-out proof stem.

2. VALVE ACTUATOR - MAPLEF MT

- 2.1. Actuator shall be rated to minimum IP22.
- 2.2. Actuator shall be driven by 24V AC/30V DC or 230V AC, and shall depending on actuator choice accept 2-10V, 4-20mA, 3-point floating or 2-position control signal.
- 2.3. Actuator shall have visible indication of position.
- 2.4. Actuator shall provide minimum torque for full valve shut-off position.
- 2.5. Optional auxiliary switch versions shall be available on all control types.
- 2.6. Manual override shall be possible.

3. VALVE HOUSING

- 3.1. Valve housing shall consist of cast iron ASTM A395, 60-40-18 rated at no less than 1600 kPa (240 psi) at 120°C (+248°C).
- 3.2. Housing shall be for installation between flanges.
- 3.3. Valve shall include a ball with laser cut paraolic opening to make flow control equal percentage; a minimum of 5 unique Kv values shall be available for each size.
- 3.4. Valve shall withstand a close-off pressure of at least 500 kPa (70 psi).
- 3.5. Valve ball and ball stem shall consist of stainless steel.
- 3.6. Identification tag shall be available; tag shall be indelibly marked with Kv, model number and location; tag shall be aluminum.