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Product Range and Price List 2015

*always supporting
professionals*



Product Range and Price List 2015

*always supporting
professionals*



We call our clients by name

Over the last 40 years we have not just been producing check systems for heating plants, valves, actuators and built-in systems, but we have always searched for solutions and shared innovative ideas for any plant situation you have to face. Today, even more than in the past, thanks to Internet and new technological resources, Mut can help you find a true solution where others only see problems.



Product index

| | | |
|-----------|---|----------|
| 1 | Zone valves | pag. 5 |
| 2 | Mixer and diverter valves | pag. 27 |
| 3 | Thermostatic radiator mixer and diverter valves | pag. 47 |
| 4 | Safety valves | pag. 53 |
| 5 | Diverter and pressure valves | pag. 58 |
| 6 | Flow switches and pressure switches | pag. 60 |
| 7 | Fan-Coil valves | pag. 63 |
| 8 | Booster Units | pag. 67 |
| 9 | Control Units | pag. 69 |
| 10 | Dirt Separator/Deaerator | pag. 71 |
| 11 | Combimut separator | pag. 74 |
| 12 | Manifolds | pag. 77 |
| 13 | Flanges - Gates | pag. 83 |
| 14 | Water Exchangers | pag. 87 |
| 15 | Mut Biomass | pag. 89 |
| 16 | Mut Solar | pag. 99 |
| 17 | Motor-valve compatibility table | pag. 109 |

Icons

APPLICATION FIELD

hot



cold



hygiene



hot/cold



solar



biomass



SCHEMA VIE

2 vie



3 vie



4 vie



WAY LAYOUT

3-way mixer



4-way mixer



3-way diverter



interceptor



MOVEMENT

manual



motorized



can be motorized



thermostatic



TECHNICAL CHARACTERISTICS

voltage



absorbed power



auxiliary contacts



pressure



nominal pressure



differential pressure



fl



temperature



fl temperature



room temperature



nominal closing time



nominal opening time



cartridge opening



cable length



kvs flow rate



type of connection



insulation class



protection rating



maximum percentage of glycol



connections



insulation



magnet



leak



Zone valve range



6/8 **TMO SERIES**
ball



9/15 **VMR SERIES**
with shutoff



16/20 **SF SERIES**
with spring return



21 **SFC SERIES**
with spring return



22 **SFCF SERIES**
with spring return



23/25 **VS SERIES**
ball

TMO SERIES

ball zone valves with full passage

The TMO motorized valves are used in households and small systems for controlling the flow of hot and cold water. They can be connected as deviator or mixer valves in central heating or cooling systems.

TECHNICAL DATA



Type of movement

SPDT = 2-pole external electrical control

SPST = Unipolar external electrical control (with built-in relay)



Type of movement

Auxiliary micro



Max. differential pressure

250 kPa, with class A seal (EN 12266-1)



Nominal pressure

PN10



Insulation class

II Ref. European Directive EN60730



Protection rating

IP 40 Ref. European Standard IEC EN 60529



2-Way commutation time

15 s (90 °) - 20 s (90 °) On request



2-Way commutation time

15 s (90 °) - 20 s (90 °) On request



3-Way commutation time

6 s (180 °), 8 s (60 °), 35 s (90 °) 140 s (90 °)
On request



3-Way commutation time

6 s (180 °), 8 s (60 °), 35 s (90 °) 140 s (90 °)
On request



Cable length

1000 mm



Fl temperature limits

5 ÷ 90 °C [max]

CERTIFICATION



TMO 2-WAY



TMO 3-WAY

2-way ball valves with motorized actuator

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|---------------------|---|------|----|-----|---------|
| 7.030.01852 | TMO 15-2MM SPST M1S | 2-way valve - 230 V - with male-male pipe connections - 6-pole mox cable - G 1/2 with relay | 1/2" | 10 | 10 | 101,50 |
| 7.030.01853 | TMO 15-2MM SPDT M1S | 2-way valve - 230 V - with male-male pipe connections - 6-pole mox cable - G 1/2 | 1/2" | 10 | 10 | 98,50 |
| 7.030.01854 | TMO 20-2MM SPST M1S | 2-way valve - 230 V - with male-male pipe connections - 6-pole mox cable - G 3/4 with relay | 3/4" | 10 | 10 | 102,50 |
| 7.030.01855 | TMO 20-2MM SPDT M1S | 2-way valve - 230 V - with male-male pipe connections - 6-pole mox cable - G 3/4 | 3/4" | 10 | 10 | 99,50 |
| 7.030.01856 | TMO 25-2MM SPST M1S | 2-way valve - 230 V - with male-male pipe connections - 6-pole mox cable - G 1 with relay | 1" | 10 | 10 | 103,50 |
| 7.030.01857 | TMO 25-2MM SPDT M1S | 2-way valve - 230 V - with male-male pipe connections - 6-pole mox cable - G 1 | 1" | 10 | 10 | 100,50 |



| | | | | | | |
|-------------|---------------------|---|------|----|----|--------|
| 7.030.01858 | TMO 15-2MF SPST M1S | 2-way valve - 230 V - with male-female pipe connections - 6-pole mox cable - G 1/2 with relay | 1/2" | 10 | 10 | 100,50 |
| 7.030.01859 | TMO 15-2MF SPDT M1S | 2-way valve - 230 V - with male-female pipe connections - 6-pole mox cable - G 1/2 | 1/2" | 10 | 10 | 97,50 |
| 7.030.01860 | TMO 20-2MF SPST M1S | 2-way valve - 230 V - with male-female pipe connections - 6-pole mox cable - G 3/4 with relay | 3/4" | 10 | 10 | 101,50 |
| 7.030.01861 | TMO 20-2MF SPDT M1S | 2-way valve - 230 V - with male-female pipe connections - 6-pole mox cable - G 3/4 | 3/4" | 10 | 10 | 98,50 |
| 7.030.01862 | TMO 25-2MF SPST M1S | 2-way valve - 230 V - with male-female pipe connections - 6-pole mox cable - G 1 with relay | 1" | 10 | 10 | 102,50 |
| 7.030.01863 | TMO 25-2MF SPDT M1S | 2-way valve - 230 V - with male-female pipe connections - 6-pole mox cable - G 1 | 1" | 10 | 10 | 99,50 |



Actuators for ball valves

| Code | Model | Description | Price € |
|-------------|----------------|---|---------|
| 7.030.01870 | ATM-2 SPST M1S | Actuator for 2-way valves - 230 V - 6-pole mox cable with relay | 89,00 |
| 7.030.01871 | ATM-2 SPDT M1S | Actuator for 2-way valves - 230 V - 6-pole mox cable | 87,00 |
| 7.030.01872 | ATM-2 SPST M1S | Actuator for 2-way valves - 24 V - 6-pole mox cable with relay | 91,00 |
| 7.030.01873 | ATM-2 SPDT M1S | Actuator for 2-way valves - 24 V - 6-pole mox cable | 89,00 |



2-way ball valves

| Code | Model | Description | Size | Price € |
|-------------|-----------|---|------|---------|
| 7.030.01878 | VTM 25-2E | 2-way valve - without connections - G 1 | 1" | 47,50 |



| | | | | |
|-------------|------------|---|------|-------|
| 7.030.01879 | VTM 15-2MM | 2-way valve - with male-male pipe connections - G 1/2 | 1/2" | 29,50 |
| 7.030.01880 | VTM 20-2MM | 2-way valve - with male-male pipe connections - G 3/4 | 3/4" | 34,50 |
| 7.030.01881 | VTM 25-2MM | 2-way valve - with male-male pipe connections - G 1 | 1" | 48,50 |



| | | | | |
|-------------|------------|---|------|-------|
| 7.030.01882 | VTM 15-2MF | 2-way valve - with male-female pipe connections - G 1/2 | 1/2" | 28,50 |
| 7.030.01883 | VTM 20-2MF | 2-way valve - with male-female pipe connections - G 1/4 | 3/4" | 33,50 |
| 7.030.01884 | VTM 25-2MF | 2-way valve - with male-female pipe connections - G 1 | 1" | 47,50 |



3-way ball valves with motorized actuator

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|---------------------|--|------|----|-----|---------|
| 7.030.01864 | TMO 15-MMM SPST M1S | 3-way valve - 230 V - with 3 male connections - 6-pole molex cable - G 1/2 with relay | 1/2" | 10 | 5 | 105,50 |
| 7.030.01865 | TMO 15-MMM SPDT M1S | 3-way valve - 230 V - with 3 male connections - 6-pole molex cable - G 1/2 | 1/2" | 10 | 5 | 102,50 |
| 7.030.01866 | TMO 20-MMM SPST M1S | 3-way valve - 230 V - with 3 male connections - 6-pole molex cable - G 3/4 with relay | 3/4" | 10 | 5 | 109,50 |
| 7.030.01867 | TMO 20-MMM SPDT M1S | 3-way valve - 230 V - with 3 male connections - 6-pole molex cable - G 3/4 | 3/4" | 10 | 5 | 106,50 |
| 7.030.01868 | TMO 25-MMM SPST M1S | 3-way valve - 230 V - with 3 male connections - 6-pole molex cable - G 1 with relay | 1" | 10 | 5 | 118,50 |
| 7.030.01869 | TMO 25-MMM SPDT M1S | 3-way valve - 230 V - with 3 male connections - 6-pole molex cable - G 1 | 1" | 10 | 5 | 115,50 |



Actuators for ball valves

| Code | Model | Description | Price € |
|-------------|----------------|--|---------|
| 7.030.01874 | ATM-3 SPST M1S | Actuator for 3-way valves- 230 V - 6-pole molex cable with relay | 91,00 |
| 7.030.01875 | ATM-3 SPDT M1S | Actuator for 3-way valves- 230 V - 6-pole molex cable | 89,00 |
| 7.030.01876 | ATM-3 SPST M1S | Actuator for 3-way valves- 24 V - 6-pole molex cable with relay | 91,00 |
| 7.030.01877 | ATM-3 SPDT M1S | Actuator for 3-way valves- 24 V - 6-pole molex cable | 89,00 |



3-way ball valves

| Code | Model | Description | Size | Price € |
|-------------|-----------|---|------|---------|
| 7.030.01885 | VTM 25E | 3-way valve - without connections - G 1 | 1" | 42,00 |
| 7.030.01886 | VTM 15MMM | 3-way valve - with 3 male connections - G 1/2 | 1/2" | 43,00 |
| 7.030.01887 | VTM 20MMM | 3-way valve - with 3 male connections - G 3/4 | 3/4" | 49,00 |
| 7.030.01888 | VTM 25MMM | 3-way valve - with 3 male connections - G 1 | 1" | 69,00 |



Accessories for ball valves TMO

| Code | Model | Description | Price € |
|-------------|--------------|--|--------------|
| 7.030.00434 | CAVO VMR/TMO | 6-pole cable x 0.75 for version with M1S | 1000 mm 6,00 |



VMR SERIES

zone valves with shutoff

VMR valves are motorized valves used in home applications and small installations to control the flow of hot and cold water. They can be connected as deviator or mixer valves in central heating or cooling systems.

TECHNICAL DATA



Type of movement
SPDT, SPST, 3 modulating points
according to the model



Max. differential pressure
392 kPa



Nominal pressure
PN10



Insulation class
II Ref. European Standard EN60730



Protection rating
IP 40 Ref. European Standard IEC EN 60529



Way commutation time
6 sec.



Way commutation time
6 sec.



Fl temperature limits
5 ÷ 110 °C [max]



VMR 2-WAY



VMR 3-WAY

CERTIFICATION



2-way click-clock zone valves - VMR series ^{*1 *2}

Bipolar external electric control - SPDT - Zone valves for heating and air conditioning systems

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|------------------|--|------|----|-----|---------|
| 7.030.01129 | VMR 15-2 SPDT CR | 2-way valve - 230 V - Female gas connections - with fast coupling - no cable | 1/2" | 10 | 3,0 | 92,90 |
| 7.030.00874 | VMR 20-2 SPDT CR | 2-way valve - 230 V - Female gas connections - with fast coupling - no cable | 3/4" | 10 | 5,3 | 94,10 |
| 7.030.00720 | VMR 25-2 SPDT CR | 2-way valve - 230 V - Female connections - with fast coupling - no cable | 1" | 10 | 6,0 | 96,40 |



| | | | | | | |
|-------------|----------------------|--|------|----|-----|-------|
| 7.030.01132 | VMR 15-2 SPDT CR M1S | V2-way valve - 230 V - Female Gas connections - with fast coupling - no cable - with auxiliary micro | 1/2" | 10 | 3,0 | 96,40 |
| 7.030.00726 | VMR 20-2 SPDT CR M1S | 2-way valve - 230 V - Female Gas connections - with fast coupling - no cable - with auxiliary micro | 3/4" | 10 | 5,3 | 98,60 |
| 7.030.00703 | VMR 25-2 SPDT CR M1S | 2-way valve - 230 V - Female Gas connections - with fast coupling - no cable - with auxiliary micro | 1" | 10 | 6,0 | 99,70 |

| | | | | | | |
|-------------|-------------------|--|------|----|-----|-------|
| 7.013.00463 | VMR 20-2E SPDT CR | 2-way valve - 230 V - Male Gas connections - with fast coupling - no cable | 3/4" | 10 | 5,3 | 94,10 |
| 7.030.00653 | VMR 25-2E SPDT CR | 2-way valve - 230 V - Male Gas connections - with fast coupling - no cable | 1" | 10 | 6,0 | 96,60 |



| | | | | | | |
|-------------|-----------------------|---|------|----|-----|-------|
| 7.030.01272 | VMR 20-2E SPDT CR M1S | 2-way valve - 230 V - Male Gas connections - with fast coupling - no cable - with auxiliary micro | 3/4" | 10 | 5,3 | 98,60 |
| 7.030.00671 | VMR 25-2E SPDT CR M1S | 2-way valve - 230 V - Male Gas connections - with fast coupling - no cable - with auxiliary micro | 1" | 10 | 6,0 | 99,70 |

| | | | | | | |
|-------------|--------------------|---|-------|----|-----|--------|
| 7.013.00698 | VMR 22-2EB SPDT CR | 2-way valve - 230 V - with fast coupling - no cable - with connections for copper pipes - complete with nuts - ferrules | 22 mm | 10 | 5,3 | 103,50 |
| 7.013.00308 | VMR 28-2B SPDT CR | 2-way valve - 230 V - with fast coupling - no cable - with connections for copper pipes - complete with nuts - ferrules | 28 mm | 10 | 6,0 | 104,60 |

| | | | | | | |
|-------------|------------------------|---|-------|----|-----|--------|
| 7.013.00699 | VMR 22-2EB SPDT CR M1S | 2-way valve - 230 V - with fast coupling - no cable - with auxiliary micro - with connections for copper pipe - complete with nuts - ferrules | 22 mm | 10 | 5,3 | 106,00 |
| 7.013.00700 | VMR 28-2B SPDT CR M1S | 2-way valve - 230 V - with fast coupling - no cable - with auxiliary micro - with connections for copper pipe | 28 mm | 10 | 6,0 | 107,00 |



*1 All the VMR series valves can be supplied with a 24 V motor

*2 All the VMR series valves can be supplied with fl cable (refer to MUT for codes)

2-way click-clock zone valves - VMR series ^{*1} ^{*2}

Unipolar external electric control - SPST (with built-in relay)

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|---------------------|---|------|----|-----|---------|
| 7.030.01163 | VMR 15-2 SPST CR | 2-way valve - 230 V - Female Gas connections - with fast coupling - no cable | 1/2" | 10 | 3,0 | 98,60 |
| 7.030.01136 | VMR 20-2 SPST CR | 2-way valve - 230 V - Female Gas connections - with fast coupling - no cable | 3/4" | 10 | 5,3 | 98,60 |
| 7.030.00866 | VMR 25-2 SPST CR | 2-way valve - 230 V - Female Gas connections - with fast coupling - no cable | 1" | 10 | 6,0 | 100,90 |



| | | | | | | |
|-------------|-------------------------|--|------|----|-----|--------|
| 7.013.00613 | VMR 15-2 SPST CR M1S | 2-way valve - 230 V - Female Gas connections - with fast coupling - no cable - with auxiliary micro | 1/2" | 10 | 3,0 | 101,10 |
| 7.030.01131 | VMR 20-2 SPST CR M1S | 2-way valve - 230 V - Female Gas connections - with fast coupling - no cable - with auxiliary micro | 3/4" | 10 | 5,3 | 101,10 |
| 7.030.00738 | VMR 25-2 SPST CR M1S | 2-way valve - 230 V - Female Gas connections - with fast coupling - no cable - with auxiliary micro | 1" | 10 | 6,0 | 104,20 |

| | | | | | | |
|-------------|----------------------|---|------|----|-----|--------|
| 7.030.01192 | VMR 20-2E SPST CR | 2-way valve - 230 V - Male Gas connections - with fast coupling - no cable | 3/4" | 10 | 5,3 | 98,60 |
| 7.030.01117 | VMR 25-2E SPST CR | 2-way valve - 230 V - Male Gas connections - with fast coupling - no cable | 1" | 10 | 6,0 | 100,90 |



| | | | | | | |
|-------------|--------------------------|--|------|----|-----|--------|
| 7.013.00704 | VMR 20-2E SPST CR M1S | 2-way valve - 230 V - Male Gas connections - with fast coupling - no cable - with auxiliary micro | 3/4" | 10 | 5,3 | 101,10 |
| 7.030.01118 | VMR 25-2E SPST CR M1S | 2-way valve - 230 V - Male Gas connections - with fast coupling - no cable - with auxiliary micro | 1" | 10 | 6,0 | 104,20 |

| | | | | | | |
|-------------|-----------------------|---|-------|----|-----|--------|
| 7.030.01219 | VMR 22-2EB SPST CR | 2-way valve - 230 V - with fast coupling - no cable - with connections for copper pipe - complete with nuts - ferrules | 22 mm | 10 | 5,3 | 107,00 |
| 7.013.00514 | VMR 28-2B SPST CR | 2-way valve - 230 V - with fast coupling - no cable - with connections for copper pipe - complete with nuts - ferrules | 28 mm | 10 | 6,0 | 108,00 |



| | | | | | | |
|-------------|---------------------------|---|-------|----|-----|--------|
| 7.013.00456 | VMR 22-2EB SPST CR M1S | 2-way valve - 230 V - with fast coupling - no cable - with auxiliary micro - with connections for copper pipe - complete with nuts - ferrules | 22 mm | 10 | 5,3 | 110,00 |
| 7.013.00701 | VMR 28-2B SPST CR M1S | 2-way valve - 230 V - with fast coupling - no cable - with auxiliary micro - with connections for copper pipe | 28 mm | 10 | 6,0 | 112,00 |

*¹ All the VMR series valves can be supplied with a 24 V motor

*² All the VMR series valves can be supplied with fl cable (refer to MUT for codes)

3-way click-clock zone valves - VMR series ^{*1 *2}

Bipolar external electric control - SPDT - Zone valve for heating and cooling systems

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-------------------|--|--------|----|-----|---------|
| 7.030.00650 | VMR 15 SPDT CR | 3-way valve - 230 V - Female Gas connections - with fast coupling - no cable | 1/2" | 10 | 3,5 | 94,20 |
| 7.030.00400 | VMR 20 SPDT CR | 3-way valve - 230 V - Female Gas connections - with fast coupling - no cable | 3/4" 1 | 0 | 7,0 | 97,70 |
| 7.030.00312 | VMR 25 SPDT CR | 3-way valve - 230 V - Female Gas connections - with fast coupling - no cable | 1" | 10 | 8,0 | 103,10 |



| | | | | | | |
|-------------|-----------------------|---|------|----|-----|--------|
| 7.030.00652 | VMR 15 SPDT CR M1S | 3 way valve - 230 V - Gas connections Female - with fast coupling - no cable - with auxiliary micro | 1/2" | 10 | 3,5 | 98,60 |
| 7.030.00392 | VMR 20 SPDT CR M1S | 3 way valve - 230 V - Gas connections Female - with fast coupling - no cable - with auxiliary micro | 3/4" | 10 | 7,0 | 99,70 |
| 7.030.00725 | VMR 25 SPDT CR M1S | 3 way valve - 230 V - Gas connections Female - with fast coupling - no cable - with auxiliary micro | 1" | 10 | 8,0 | 106,70 |

| | | | | | | |
|-------------|--------------------|--|------|----|-----|--------|
| 7.030.00100 | VMR 20E SPDT CR | 3 way valve - 230 V - Male gas connections - with fast coupling - no cable | 3/4" | 10 | 7,0 | 97,70 |
| 7.030.00101 | VMR 25E SPDT CR | 3 way valve - 230 V - Male gas connections - with fast coupling - no cable | 1" | 10 | 8,0 | 103,10 |



| | | | | | | |
|-------------|------------------------|---|------|----|-----|--------|
| 7.030.00308 | VMR 20E SPDT CR M1S | 3 way valve - 230 V - Male gas connections - with fast coupling - no cable - with auxiliary micro | 3/4" | 10 | 7,0 | 101,50 |
| 7.030.00692 | VMR 25E SPDT CR M1S | 3 way valve - 230 V - Male gas connections - with fast coupling - no cable - with auxiliary micro | 1" | 10 | 0 | 106,70 |

| | | | | | | |
|-------------|---------------------|--|-------|----|-----|--------|
| 7.030.00097 | VMR 22EB SPDT CR | 3-way valve - 230 V - with fast coupling - no cable - with connections for copper pipe - complete with nuts - ferrules | 22 mm | 10 | 7,0 | 110,00 |
| 7.030.00546 | VMR 28B SPDT CR | 3-way valve - 230 V - with fast coupling - no cable - with connections for copper pipe - complete with nuts - ferrules | 28 mm | 10 | 8,0 | 115,00 |



| | | | | | | |
|-------------|-------------------------|--|-------|----|-----|--------|
| 7.013.00277 | VMR 22EB SPDT CR M1S | 3-way valve - 230 V - with fast coupling - no cable - with connections for copper pipe - complete with nuts - ferrules | 22 mm | 10 | 7,0 | 114,00 |
| 7.013.00695 | VMR 28B SPDT CR M1S | 3-way valve - 230 V - with fast coupling - no cable - with connections for copper pipe - complete with nuts - ferrules | 28 mm | 10 | 8,0 | 118,00 |

*1 All the VMR series valves can be supplied with a 24 V motor

*2 All the VMR series valves can be supplied with fl cable (refer to MUT for codes)

3-way click-clock zone valves - VMR series ^{*1} ^{*2}

Unipolar external electric control - SPST (with built-in relay)

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|----------------|--|------|----|-----|---------|
| 7.030.00707 | VMR 15 SPST CR | 3-way valve - 230 V - Female Gas connections - with fast coupling - no cable | 1/2" | 10 | 3,5 | 98,90 |
| 7.030.00540 | VMR 20 SPST CR | 3-way valve - 230 V - Female Gas connections - with fast coupling - no cable | 3/4" | 10 | 7,0 | 102,50 |
| 7.030.00314 | VMR 25 SPST CR | 3-way valve - 230 V - Female Gas connections - with fast coupling - no cable | 1" | 10 | 8,0 | 108,00 |



| | | | | | | |
|-------------|--------------------|--|------|----|-----|--------|
| 7.030.00766 | VMR 15 SPST CR M1S | 3 way valve - 230 V -Female Gas connections - with fast coupling - no cable - with auxiliary micro | 1/2" | 10 | 3,5 | 102,60 |
| 7.030.00550 | VMR 20 SPST CR M1S | 3 way valve - 230 V -Female Gas connections - with fast coupling - no cable - with auxiliary micro | 3/4" | 10 | 7,0 | 106,00 |
| 7.030.00699 | VMR 25 SPST CR M1S | 3 way valve - 230 V -Female Gas connections - with fast coupling - no cable - with auxiliary micro | 1" | 10 | 8,0 | 111,20 |

| | | | | | | |
|-------------|-----------------|--|------|----|-----|--------|
| 7.030.00185 | VMR 20E SPST CR | 3-way valve - 230 V - Male Gas connections - with fast coupling - no cable | 3/4" | 10 | 7,0 | 102,50 |
| 7.030.01045 | VMR 25E SPST CR | 3-way valve - 230 V - Male Gas connections - with fast coupling - no cable | 1" | 10 | 8,0 | 108,00 |



| | | | | | | |
|-------------|---------------------|--|------|----|-----|--------|
| 7.030.00332 | VMR 20E SPST CR M1S | 3-way valve - 230 V - Male Gas connections - with fast coupling - no cable- with auxiliary micro | 3/4" | 10 | 7,0 | 106,00 |
| 7.030.00318 | VMR 25E SPST CR M1S | 3-way valve - 230 V - Male Gas connections - with fast coupling - no cable- with auxiliary micro | 1" | 10 | 8,0 | 111,20 |

| | | | | | | |
|-------------|------------------|---|-------|----|-----|--------|
| 7.030.00269 | VMR 22EB SPST CR | 3-way valve - 230 V - with fast coupling - no cable - with connections for copper pipe - complete with nuts - fer-rules | 22 mm | 10 | 7,0 | 115,00 |
| 7.030.00797 | VMR 28EB SPST CR | 3-way valve - 230 V - with fast coupling - no cable - with connections for copper pipe - complete with nuts - fer-rules | 28 mm | 10 | 8,0 | 119,00 |



| | | | | | | |
|-------------|----------------------|---|-------|----|-----|--------|
| 7.030.00330 | VMR 22EB SPST CR M1S | 3-way valve - 230 V - with fast coupling - no cable - with auxiliary micro - with connections for copper pipe | 22 mm | 10 | 7,0 | 119,00 |
| 7.030.00317 | VMR 28B SPST CR M1S | 3-way valve - 230 V - with fast coupling - no cable with auxiliary micro - with connections for copper pipe | 28 mm | 10 | 8,0 | 123,00 |

*¹ All the VMR series valves can be supplied with a 24 V motor

*² All the VMR series valves can be supplied with fl cable (refer to MUT for codes)

3-way click-clock zone valves - VMR series ^{*1} ^{*2}

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|------------|--|------|----|-----|---------|
| 7.030.00197 | VMR 25E CR | 3-way valve - 230 V - with fast coupling - no cable - Male gas connections - two-way 3 points 120" | 1" | 10 | 8,0 | 151,00 |
| 7.030.01137 | VMR 25E CR | 3-way valve - 230 V - with fast coupling - no cable - Male gas connections - two-way 3 points 60" | 1" | 10 | 8,0 | 151,00 |
| 7.013.00705 | VMR 25E CR | 3-way valve - 230 V - with fast coupling - no cable - Male gas connections - two-way 3 points 12" | 1" | 10 | 8,0 | 151,00 |



| | | | | | | |
|-------------|------------|--|------|----|-----|--------|
| 7.030.00056 | VMR 20E CR | 3 way valve - 230 V - with fast coupling - no cable - Male gas connections - two-way 3 points 120" | 3/4" | 10 | 8,0 | 151,00 |
| 7.030.01190 | VMR 20E CR | 3 way valve - 230 V - with fast coupling - no cable - Male gas connections - two-way 3 points 60" | 3/4" | 10 | 8,0 | 151,00 |
| 7.030.00784 | VMR 20E CR | 3 way valve - 230 V - with fast coupling - no cable - Male gas connections - two-way 3 points 12" | 3/4" | 10 | 8,0 | 151,00 |

| | | | | | | |
|-------------|-----|------------------|--|--|--|--------|
| 7.013.00697 | VMR | 3-way bell valve | | | | 141,00 |
|-------------|-----|------------------|--|--|--|--------|



Accessories for click-clock valves - VMR series ^{*1} ^{*2}

| Code | Model | Description | Price € |
|-------------|----------------|--|-------------|
| 7.013.00055 | MR SPDT CR | Valve motor VMR SPDT CR 230 V | 230 V 55,60 |
| 7.013.00082 | MR SPDT CR | Valve motor VMR SPDT CR 24 V | 24 V 55,60 |
| 7.013.00163 | MR SPDT CR M1S | Valve motor VMR SPDT CR 230 V with auxiliary micro | 230 V 64,00 |
| 7.013.00299 | MR SPDT CR M1S | Valve motor VMR SPDT CR 24 V with auxiliary micro | 24 V 64,00 |

| | | | |
|-------------|----------------|---|-------------|
| 7.013.00401 | MR SPST CR | Motor for VMR SPST CR valves with built-in relay 230 V | 230 V 66,00 |
| 7.013.00342 | MR SPST CR | Motor for VMR SPST CR valves with built-in relay 24 V | 24 V 66,00 |
| 7.013.00647 | MR SPST CR M1S | Motor for VMR SPST CR valves with built-in relay 230 V - with auxiliary micro | 230 V 70,00 |
| 7.013.00422 | MR SPST CR M1S | Motor for VMR SPST CR valves with built-in relay 24 V - with auxiliary micro | 24 V 70,00 |



| | | | |
|-------------|-------|---|-------------|
| 7.013.00540 | MR B1 | Valve motor VMR 230 V CR two-way 3 points | 120" 110,00 |
| 7.013.00598 | MR B2 | Valve motor VMR 230 V CR two-way 3 points | 12" 110,00 |
| 7.030.00805 | MR M0 | Valve motor VMR 24 V 0-10 modulating with pre-assembled cable | 60" 130,00 |

*1 All the VMR series valves can be supplied with a 24 V motor

*2 All the VMR series valves can be supplied with fl cable (refer to MUT for codes)

Accessories for click-clock valves - VMR series ^{*1} ^{*2}

| Code | Model | Description | Price € |
|-------------|---------|------------------------------|---------|
| 7.013.00381 | KIT VMR | Shutoff set for 3-way valves | 25,50 |
| 7.013.00312 | KIT VMR | Shutoff set for 2-way valves | 25,50 |
| 7.013.00188 | KIT | Shutoff dismantling kit | 4,80 |



| | | | | |
|-------------|----------|--|---------|-------|
| 7.013.00415 | CAVO VMR | 3-pole cable x .0.75 | 1000 mm | 5,50 |
| 7.030.00434 | CAVO VMR | 6-pole cable x 0.75 for version with M1S | 1000 mm | 6,00 |
| 7.013.00159 | CAVO VMR | 3-pole cable x 0.75 | 1500 mm | 8,00 |
| 7.013.00134 | CAVO VMR | 6-pole cable x 0.75 for version with M1S | 1500 mm | 8,50 |
| 7.030.01595 | CAVO VMR | 3-pole cable x 0.75 | 2000 mm | 11,00 |
| 7.030.01166 | CAVO VMR | 6-pole cable x 0.75 for version with M1S | 2000 mm | 12,00 |



^{*1} All the VMR series valves can be supplied with a 24 V motor

^{*2} All the VMR series valves can be supplied with fl cable (refer to MUT for codes)

SF SERIES

ball zone valves with spring return

These are powered by an electric motor and can assume two operating positions depending on whether the motor is activated or not. One or two auxiliary switches can be installed on request. These are activated when the valve switches.

The valves are equipped with an external lever for manual positioning of the shut-off ball in a central position.

TECHNICAL DATA



Type of movement
Spring return



Max. differential pressure
90.2 kPa



Nominal pressure
PN10



Insulation class
II Ref. European Directive EN60730



Protection rating
IP 22 Ref. European Directive IEC EN 60529



Way commutation time
10 sec



Way commutation time
4 sec

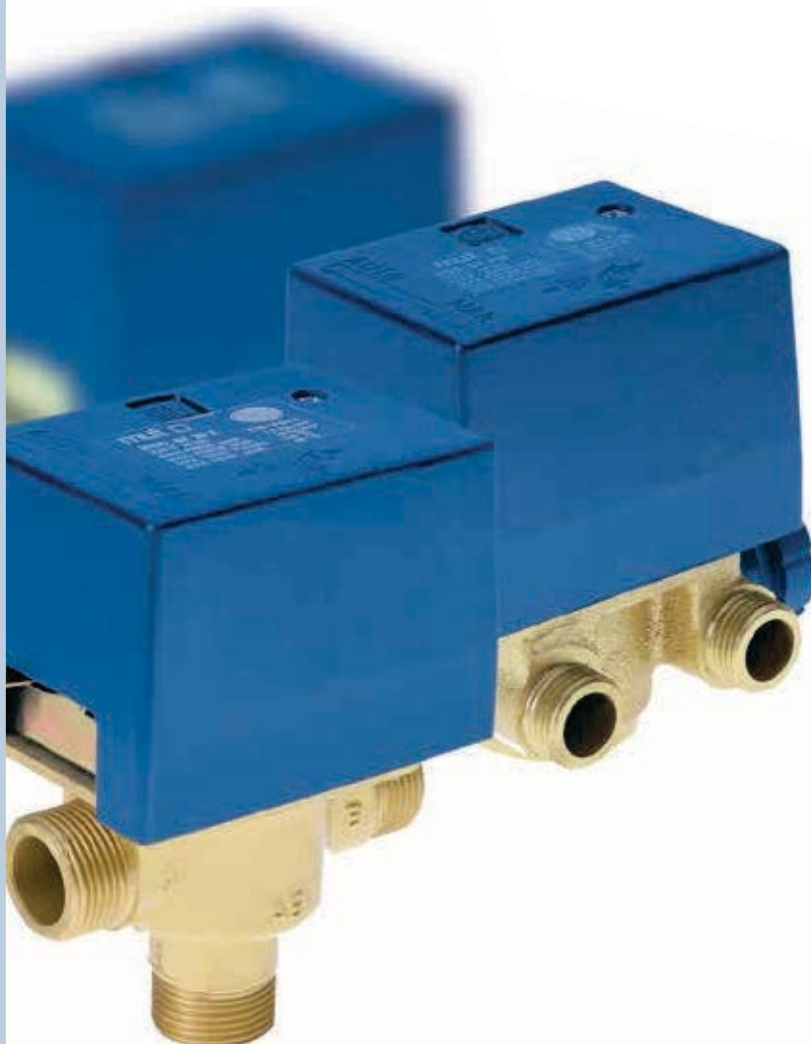


Fl temperature limits
5 ÷ 110 °C [max]



Cable length
1000 mm

CERTIFICATION



SF 2-WAY



SF 3-WAY



Basic SF

SF series 2-way zone valves *

Zone valve with spring return for heating and air conditioning systems

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|---------|--|------|----|------|---------|
| 7.001.01574 | SF 15-2 | 2-way valve - 230 V - Female Gas connections | 1/2" | 10 | 6,0 | 79,30 |
| 7.001.01603 | SF 20-2 | 2-way valve - 230 V - Female Gas connections | 3/4" | 10 | 8,0 | 80,30 |
| 7.001.01639 | SF 25-2 | 2-way valve - 230 V - Female Gas connections | 1" | 10 | 10,0 | 84,00 |



| | | | | | | |
|-------------|------------|---|------|----|------|-------|
| 7.001.01586 | SF 15-2 M1 | 2-way valve - 230 V - Female Gas connections with auxiliary micro | 1/2" | 10 | 6,0 | 85,20 |
| 7.001.01618 | SF 20-2 M1 | 2-way valve - 230 V - Fem. Gas connections, with auxiliary microswitch. For the 24 V version use the code 7.001.01615 | 3/4" | 10 | 8,0 | 83,60 |
| 7.001.01654 | SF 25-2 M1 | 2-way valve - 230 V - Female Gas connections with auxiliary micro | 1" | 10 | 10,0 | 83,60 |

| | | | | | | |
|-------------|-----------|--|------|----|------|-------|
| 7.001.01724 | SF 15-2 E | 2-way valve - 230 V - Male gas connections | 1/2" | 10 | 6,0 | 79,30 |
| 7.001.02066 | SF 20-2 E | 2-way valve - 230 V - Male gas connections | 3/4" | 10 | 8,0 | 80,30 |
| 7.001.02283 | SF 25-2 E | 2-way valve - 230 V - Male gas connections | 1" | 10 | 10,0 | 84,00 |



| | | | | | | |
|-------------|--------------|---|------|----|------|-------|
| 7.001.02517 | SF 15-2 E M1 | 2-way valve - 230 V - Male gas connections with auxiliary micro | 1/2" | 10 | 6,0 | 85,20 |
| 7.001.02286 | SF 20-2 E M1 | 2-way valve - 230 V - Male gas connections with auxiliary micro | 3/4" | 10 | 8,0 | 83,60 |
| 7.001.02195 | SF 25-2 E M1 | 2-way valve - 230 V - Male gas connections with auxiliary micro | 1" | 10 | 10,0 | 83,80 |

| | | | | | | |
|-------------|------------|--|-------|----|------|-------|
| 7.001.01693 | SF 15-2 EB | 2-way valve - 230 V - connections for copper pipes complete with nuts - ferrules | 15 mm | 10 | 6,0 | 86,40 |
| 7.001.01682 | SF 16-2 EB | 2-way valve - 230 V - connections for copper pipes complete with nuts - ferrules | 16 mm | 10 | 6,0 | 86,90 |
| 7.001.01704 | SF 20-2 EB | 2-way valve - 230 V - connections for copper pipes complete with nuts - ferrules | 22 mm | 10 | 8,0 | 89,50 |
| 7.001.02844 | SF 25-2 B | 2-way valve - 230 V - connections for copper pipes complete with nuts - ferrules | 28 mm | 10 | 10,0 | 92,30 |



| | | | | | | |
|-------------|---------------|---|-------|----|------|-------|
| 7.001.01699 | SF 15-2 EB M1 | 2-way valve - 230 V - connections for copper pipe with auxiliary micro - complete with nuts - | 15 mm | 10 | 6,0 | 89,80 |
| 7.001.01685 | SF 16-2 EB M1 | 2-way valve - 230 V - connections for copper pipe with auxiliary micro - complete with nuts - | 16 mm | 10 | 6,0 | 90,00 |
| 7.001.02777 | SF 20-2 EB M1 | 2-way valve - 230 V - connections for copper pipe with auxiliary micro - complete with nuts - | 22 mm | 10 | 8,0 | 91,90 |
| 7.001.02778 | SF 25-2 B M1 | 2-way valve - 230 V - connections for copper pipe with auxiliary micro - complete with nuts - | 28 mm | 10 | 10,0 | 92,50 |

| | | | | | | |
|-------------|------------|--|--------|----|------|--------|
| 7.030.00321 | SF BASE | 2-way valve - 230 V - complete with flanges | 1" 1/4 | 10 | 10,0 | 99,93 |
| 7.030.00349 | SF BASE M1 | 2-way valve - 230 V - complete with flanges with auxiliary micro | 1" 1/4 | 10 | 10,0 | 109,60 |



All the valves in the SF series can be supplied with 24 V and 110 V motors (please contact MUT for codes)

SF series 3-way zone valves *

Zone valve with spring return for heating and air conditioning systems

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-------|--|------|----|------|---------|
| 7.001.01739 | SF 15 | 3-way valve - 230 V - Female gas connections | 1/2" | 10 | 6,6 | 79,80 |
| 7.001.01770 | SF 20 | 3-way valve - 230 V - Female gas connections | 3/4" | 10 | 8,0 | 80,80 |
| 7.001.01808 | SF 25 | 3-way valve - 230 V - Female gas connections | 1" | 10 | 12,6 | 84,40 |

| | | | | | | |
|-------------|----------|--|------|----|------|-------|
| 7.001.01753 | SF 15 M1 | 3-way valve - 230 V - Female gas connections with auxiliary micro | 1/2" | 10 | 6,6 | 88,10 |
| 7.001.01787 | SF 20 M1 | 3-way valve - 230 V - Female gas connections with auxiliary micro | 3/4" | 10 | 8,0 | 89,10 |
| 7.001.01827 | SF 25 M1 | 3-way valve - 230 V - Female gas connections with auxiliary micro | 1" | 10 | 12,6 | 92,20 |

| | | | | | | |
|-------------|---------|--|------|----|------|-------|
| 7.001.02097 | SF 15 E | 3-way valve - 230 V - Male gas connections | 1/2" | 10 | 6,6 | 79,30 |
| 7.001.01913 | SF 20 E | 3-way valve - 230 V - Male gas connections | 3/4" | 10 | 8,0 | 81,50 |
| 7.001.01954 | SF 25 E | 3-way valve - 230 V - Male gas connections | 1" | 10 | 12,6 | 84,60 |

| | | | | | | |
|-------------|------------|--|------|----|------|-------|
| 7.001.02762 | SF 15 E M1 | 3-way valve - 230 V Male gas connections with auxiliary micro | 1/2" | 10 | 6,6 | 87,80 |
| 7.001.01935 | SF 20 E M1 | 3-way valve - 230 V Male gas connections with auxiliary micro | 3/4" | 10 | 8,0 | 89,10 |
| 7.001.01969 | SF 25 E M1 | 3-way valve - 230 V Male gas connections with auxiliary micro | 1" | 10 | 12,6 | 92,20 |

| | | | | | | |
|-------------|----------|---|-------|----|------|-------|
| 7.001.01876 | SF 15 EB | 3-way valve - 230 V connections for copper pipes complete with nuts - ferrules | 15 mm | 10 | 6,6 | 87,10 |
| 7.001.01861 | SF 16 EB | 3-way valve - 230 V connections for copper pipes complete with nuts - ferrules | 16 mm | 10 | 6,6 | 87,40 |
| 7.001.01888 | SF 20 EB | 3-way valve - 230 V connections for copper pipes complete with nuts - ferrules | 22 mm | 10 | 8,0 | 89,90 |
| 7.001.01846 | SF 25 B | 3-way valve - 230 V - connections for copper pipes complete with nuts | 28 mm | 10 | 12,6 | 92,70 |

| | | | | | | |
|-------------|-------------|---|-------|----|------|--------|
| 7.001.02511 | SF 15 EB M1 | 3-way valve - 230 V - connections for copper pipes with auxiliary micro - complete with nuts - ferrules | 15 mm | 10 | 6,6 | 94,40 |
| 7.001.01865 | SF 16 EB M1 | 3-way valve - 230 V - connections for copper pipes with auxiliary micro - complete with nuts - ferrules | 16 mm | 10 | 6,6 | 95,60 |
| 7.001.01895 | SF 20 EB M1 | 3-way valve - 230 V - connections for copper pipes with auxiliary micro - complete with nuts - ferrules | 22 mm | 10 | 8,0 | 99,60 |
| 7.001.02780 | SF 25 B M1 | 3-way valve - 230 V - connections for copper pipes with auxiliary micro - complete with nuts - ferrules | 28 mm | 10 | 12,6 | 104,50 |



All the valves in the SF series can be supplied with 24 V and 110 V motors (please contact MUT for codes)

SF series 3-way zone valves *

Zone valve with spring return for heating and air conditioning systems

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|------------|--|------|----|------|---------|
| 7.001.01998 | SF BASE | 3-way valve - 230 V - connections prepared for flange | | 10 | 12,6 | 79,30 |
| 7.001.02006 | SF BASE M1 | 3-way valve - 230 V - connections prepared for flange with auxiliary micros | | 10 | 12,6 | 90,30 |



| | | | | | | |
|-------------|------------|--|--------|----|------|--------|
| 7.030.00343 | SF BASE | 3-way valve - 230 V - complete with flanges | 1" 1/4 | 10 | 12,6 | 108,50 |
| 7.030.00347 | SF BASE M1 | 3-way valve - 230 V - complete with flanges with auxiliary micros | 1" 1/4 | 10 | 12,6 | 119,50 |



| | | | | | | |
|-------------|------------|--|--|----|-----|-------|
| 7.001.01983 | SF 20-F | 3-way valve - 230 V - connections prepared for flange | | 10 | 8,0 | 81,00 |
| 7.001.01986 | SF 20-F M1 | 3-way valve - 230 V - connections prepared for flange with auxiliary micros | | 10 | 8,0 | 85,30 |



SF Mid-Position series 3-way zone valves *

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-----------|---|------|----|------|---------|
| 7.001.01767 | SF 15-MID | 3-way valve Mid-Position - 230 V - Fem. Gas connections | 1/2" | 10 | 6,6 | 89,30 |
| 7.001.01803 | SF 20-MID | 3-way valve Mid-Position - 230 V - Fem. Gas connections | 3/4" | 10 | 8,0 | 90,00 |
| 7.001.01844 | SF 25-MID | 3-way valve Mid-Position - 230 V - Fem. Gas connections | 1" | 10 | 12,6 | 93,10 |



| | | | | | | |
|-------------|-------------|---|------|----|------|-------|
| 7.001.02748 | SF 15-E MID | 3-way valve Mid-Position - 230 V - Male gas connections | 1/2" | 10 | 6,6 | 88,00 |
| 7.001.01952 | SF 20-E MID | 3-way valve Mid-Position - 230 V - Male gas connections | 3/4" | 10 | 8,0 | 89,30 |
| 7.001.01981 | SF 25-E MID | 3-way valve Mid-Position - 230 V - Male gas connections | 1" | 10 | 12,6 | 92,30 |



| | | | | | | |
|-------------|--------------|---|-------|----|------|-------|
| 7.001.02587 | SF 15-EB MID | 3-way valve Mid-Position - 230 V connections for copper pipes - complete with nuts - ferrules | 15 mm | 10 | 6,6 | 91,90 |
| 7.001.01875 | SF 16-EB MID | 3-way valve Mid-Position - 230 V connections for copper pipes - complete with nuts - ferrules | 16 mm | 10 | 6,6 | 92,30 |
| 7.001.01911 | SF 20-EB MID | 3-way valve Mid-Position - 230 V connections for copper pipes - complete with nuts - ferrules | 22 mm | 10 | 8,0 | 94,60 |
| 7.001.02591 | SF 25-B MID | 3-way valve Mid-Position - 230 V connections for copper pipes - complete with nuts - ferrules | 28 mm | 10 | 12,6 | 97,30 |



All the valves in the SF series can be supplied with 24 V and 110 V motors (please contact MUT for codes)

SF valve accessories*

| Code | Model | Description | Size | Price € |
|-------------|---------|---|------|---------|
| 7.001.02025 | KIT M1 | Auxiliary micro kit with 5 wires - cable gland - spacer nuts - SPST | | 9,80 |
| 7.001.02029 | KIT M1S | Auxiliary micro kit with 6 wires - cable gland - spacer nuts - SPST | | 12,00 |



| | | |
|-------------|---|-------|
| 6.001.00703 | Motor - 230 V - complete with connections | 46,50 |
| 6.001.01432 | Motor - 24 V - complete with connections | 55,00 |



| | | |
|-------------|--|-------|
| 6.001.01464 | Motor - 230 V - complete with plate for 2-way valve | 51,50 |
| 6.001.01450 | Motor - 24 V - complete with plate for 2-way valve | 60,00 |
| 6.001.01485 | Motor - 230 V - complete with plate for 2-way Basic SF and SFC | 51,50 |
| 6.001.00910 | Motor - 230 V - complete with plate for 3-way valve | 51,50 |
| 6.001.01448 | Motor - 24 V complete with plate for 3-way valve | 60,00 |



| | | | |
|-------------|-----------------------------|--------------|-------|
| 7.001.01487 | Brass cover for 2-way valve | 1/2"-3/4"-1" | 41,00 |
| 7.001.02247 | Brass cover for 3-way valve | 1/2"-3/4" | 41,00 |
| 7.001.01489 | Brass cover for 3-way valve | 1" | 42,00 |



| | | | |
|-------------|---|-----------|-------|
| 7.001.01561 | Mount for 3-way valves - 230 V | 1/2"-3/4" | 74,00 |
| 7.001.01227 | Mount for 3-way valves - 230 V with auxiliary micro | 1/2"-3/4" | 77,50 |



| | | | |
|-------------|---|----|-------|
| 7.001.01563 | Mount for 3-way valves - 230 V | 1" | 77,00 |
| 7.001.01228 | Mount for 3-way valves - 230 V with auxiliary micro | 1" | 79,40 |

| | | | |
|-------------|--|--------------|-------|
| 7.001.01559 | Mount for 2-way valves - 230 V | 1/2"-3/4"-1" | 74,00 |
| 7.001.01224 | Mount for 2-way valve - 230 V with auxiliary micro | 1/2"-3/4"-1" | 77,50 |



| | | | |
|-------------|---|----|-------|
| 7.001.00958 | Mount for 2-way Basic SF valve and SFC 230 V | 1" | 76,00 |
| 7.001.01392 | Mount for 2-way Basic SF valve and SFC 230 V with auxiliary micro | 1" | 81,00 |

| | | | | |
|-------------|-------------|----------------------------------|------|--------|
| 7.030.01791 | Comfort kit | Comfort kit with auxiliary micro | DN20 | 106,50 |
| 7.030.01792 | Comfort kit | Comfort kit with auxiliary micro | DN20 | 119,50 |



All the valves in the SF series can be supplied with 24 V and 110 V motors (please contact MUT for codes)

SFC SERIES

zone valves with spring return

These valves are powered by an electric motor and can be in two different operating positions depending on whether the motor is charged or not. An auxiliary switch can be installed on request and activated when the valve is switched. Valves are equipped with an external lever for manual positioning of the shut-off ball in a central position. They also have a built-in by-pass to balance the hydraulic circuit when the valve is closed.

TECHNICAL DATA



Type of movement
Spring return



Max. differential pressure
90.2 kPa



Nominal pressure
PN10



Insulation class
II Ref. European Directive EN60730



Protection rating
IP 22 Ref. European Directive IEC EN 60529



Way commutation time
10 sec



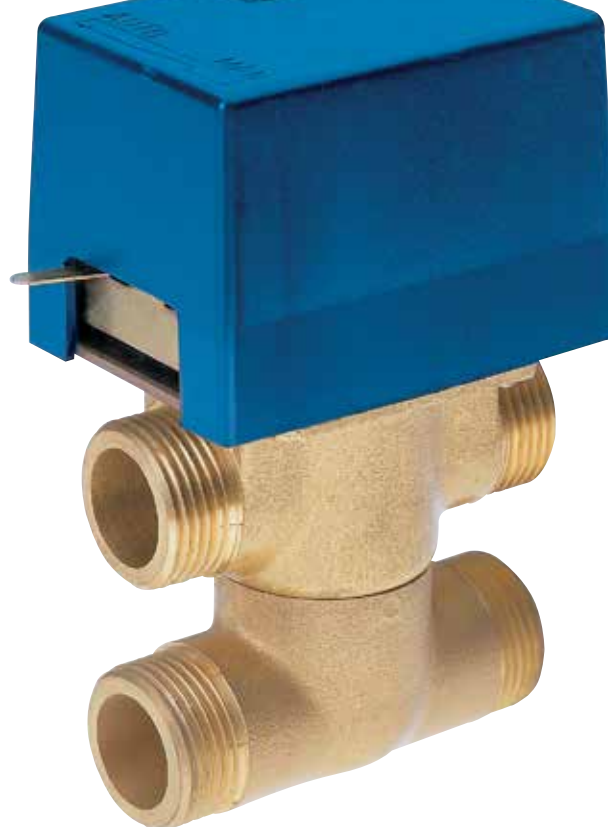
Way commutation time
4 sec



Fl temperature limits
5 ÷ 110 °C [max]



Cable length
1000 mm



CERTIFICATION



Valves for coplanar manifolds - SFC series *

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-----------|--|------|----|------|---------|
| 7.001.01012 | SFC 25 | 4-way zone valve with built-in by-pass for balancing the hydraulic head - Male Gas connections 1" - std distance between axes 50 mm - 230 V | 1" | 10 | 10,0 | 109,50 |
| 7.001.01031 | SFC 25 M1 | 4-way zone valve with built-in by-pass for balancing the hydraulic head - Male Gas connections 1" - std distance between axes 50 mm - 230 V with auxiliary micro | 1" | 10 | 10,0 | 113,50 |



SFC series valve accessories SFC

| Code | Description | Size | Price € |
|-------------|------------------------------------|-------|---------|
| 7.001.01547 | Spacer for distance between axes | 52 mm | 1,65 |
| 7.001.01548 | Spacer for distance between axes | 55 mm | 1,95 |
| 7.001.01549 | Spacer for distance between axes | 57 mm | 2,05 |
| 7.001.01550 | Spacer for distance between axes | 60 mm | 2,35 |
| 7.001.01551 | Spacer for distance between axes | 65 mm | 2,35 |
| 7.001.01558 | Pipe union - 1" Male / 1" Female | | 12,30 |
| 7.001.01036 | Pipe union - 3/4" Male / 1" Female | | 9,20 |



*All the valves in the SFC series can be supplied with 24 V and 110 V motors (please contact MUT for codes)

SFCF SERIES

zone valves with spring return

These valves are moved by an electric motor and they can take on two operation positions according to whether the motor is being powered or not. An auxiliary switch that is activated during valve switching is available on request. The valves have an external lever for placing the shut-off valves manually in the central position. In addition, the PLUS version has an adjustable by-pass and a manometric pressure intake for balancing the hydraulic circuit when the valve is closed.

TECHNICAL DATA



Type of movement
Spring return



Max. differential pressure
61.8 kPa



Nominal pressure
PN10



Insulation class
II Ref. European Directive EN60730



Protection rating
IP 20 Ref. European Directive IEC EN 60529



Way commutation time
20 sec.



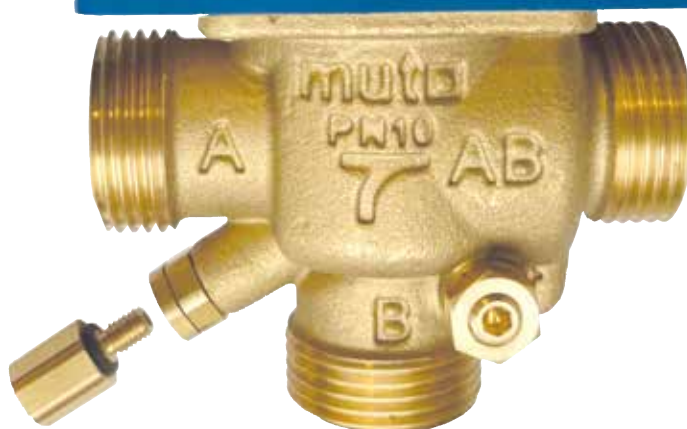
Way commutation time
6 sec.



Fl temperature limits
5 ÷ 110 °C [max]



Cable length
1000 mm



CERTIFICATION



Valves for coplanar manifolds - SFCF series

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|----------|---------------------------|------|----|-----|---------|
| 7.030.01559 | SFCF 25E | SFCF 25E 230 V valve | 1" | 10 | 8,5 | 115,00 |
| 7.030.01528 | SFCF 25E | SFCF 25E 230 V plus valve | 1" | 10 | 8,5 | 120,00 |



| | | | | | | |
|-------------|-------------|---|----|----|-----|--------|
| 7.030.01623 | SFCF 25E M1 | SFCF 25E M1 valve 230 V with auxiliary micro | 1" | 10 | 8,5 | 118,00 |
| 7.030.01622 | SFCF 25E M1 | SFCF 25E M1 valve 230 V plus with auxiliary micro | 1" | 10 | 8,5 | 123,00 |



*** All the SF and SFC series valves can be supplied with a 24 V and 110 V motor (refer to MUT for the codes)

VS SERIES

ball zone valve

The ball valve is the most common and used fluid interception device in hydraulic piping. Its operation is based on a 90 degree rotation of a spherical block fitted with cylindrical hole coaxial with the flow. The valve allows the passage or the total blocking of the flow and in some cases even its regulation. A total passage ball valve, i.e., where the passage diameter equal to the internal diameter of upstream and downstream pipe, has a small capacity loss equal to that of the pipe (if the valve is completely open).

TECHNICAL DATA



Type of movement
230 / 24 volt , 3 points with auxiliary micro



Nominal pressure
PN10



Max. differential pressure
6 bar



Insulation class
II Ref. European Directive EN60730



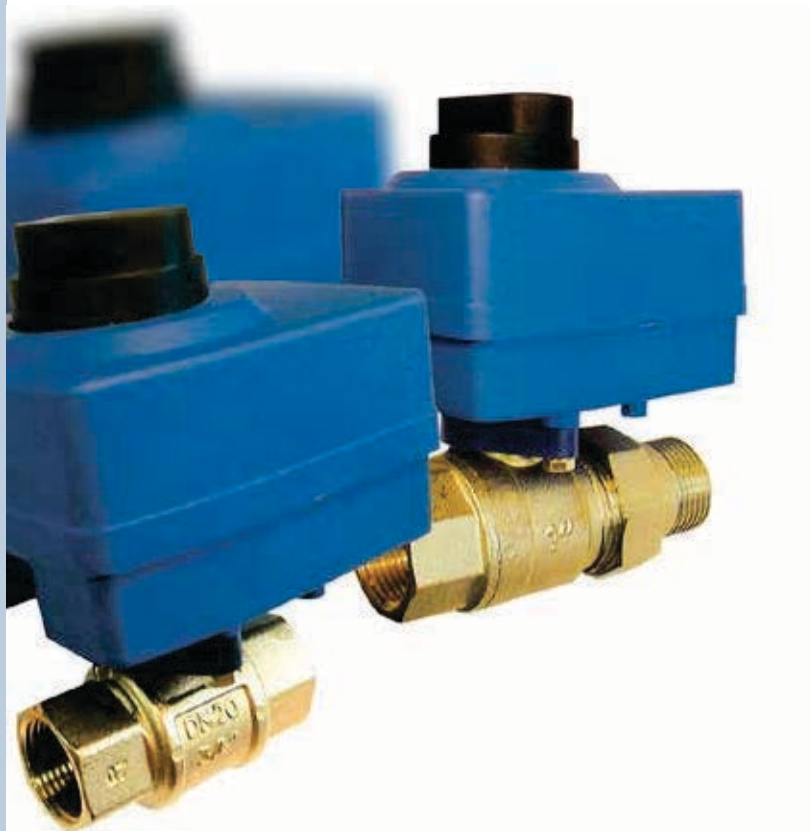
Protection rating
IP 40 Ref. European Directive IEC EN60529



Way commutation time
55 - 120 sec.



Cable length
1100 mm



VS 2-WAY



VS 3-WAY

CERTIFICAZIONI



2-ways ball valves with actuator

VS female - female

| Code | Model | Description | Size | Motor | Price € |
|-------------|--------------|---|-------|-------------------|---------|
| 7.030.01690 | VS 15 F-F M1 | Full passage VS valve female-female 230 V M1 with micro | 1/2" | V70F 50S 230 M1 | 114,00 |
| 7.030.01692 | VS 20 F-F M1 | Full passage VS valve female-female 230 V M1 with micro | 3/4" | V70F 50S 230 M1 | 117,00 |
| 7.030.01694 | VS 25 F-F M1 | Full passage VS valve female-female 230 V M1 with micro | 1" | V70F 50S 230 M1 | 120,00 |
| 7.030.01696 | VS 32 F-F M1 | Full passage VS valve female-female 230 V M1 with micro | 1"1/4 | V200F 120S 230 M1 | 275,00 |
| 7.030.01698 | VS 40 F-F M1 | Full passage VS valve female-female 230 V M1 with micro | 1"1/2 | V200F 120S 230 M1 | 287,00 |

| | | | | | |
|-------------|-----------|---|-------|----------------|--------|
| 7.030.01679 | VS 15 F-F | VS total flow valve female-female 230 V | 1/2" | V70F 50S 230 | 98,00 |
| 7.030.01681 | VS 20 F-F | VS total flow valve female-female 230 V | 3/4" | V70F 50S 230 | 100,00 |
| 7.030.01683 | VS 25 F-F | VS total flow valve female-female 230 V | 1" | V70F 50S 230 | 103,00 |
| 7.030.01686 | VS 32 F-F | VS total flow valve female-female 230 V | 1"1/4 | V200F 120S 230 | 254,00 |
| 7.030.01688 | VS 40 F-F | VS total flow valve female-female 230 V | 1"1/2 | V200F 120S 230 | 261,00 |

| | | | | | |
|-------------|--------------|--|-------|------------------|--------|
| 7.030.01689 | VS 15 F-F M1 | Full passage VS valve female-female 24 V M1 with micro | 1/2" | V70F 50S 24 M1 | 114,00 |
| 7.030.01691 | VS 20 F-F M1 | Full passage VS valve female-female 24 V M1 with micro | 3/4" | V70F 50S 24 M1 | 117,00 |
| 7.030.01693 | VS 25 F-F M1 | Full passage VS valve female-female 24 V M1 with micro | 1" | V70F 50S 24 M1 | 120,00 |
| 7.030.01695 | VS 32 F-F M1 | Full passage VS valve female-female 24 V M1 with micro | 1"1/4 | V200F 120S 24 M1 | 275,00 |
| 7.030.01697 | VS 40 F-F M1 | Full passage VS valve female-female 24 V M1 with micro | 1"1/2 | V200F 120S 24 M1 | 287,00 |

| | | | | | |
|-------------|-----------|--|-------|---------------|--------|
| 7.030.01678 | VS 15 F-F | VS total flow valve female-female 24 V | 1/2" | V70F 50S 24 | 98,00 |
| 7.030.01680 | VS 20 F-F | VS total flow valve female-female 24 V | 3/4" | V70F 50S 24 | 100,00 |
| 7.030.01682 | VS 25 F-F | VS total flow valve female-female 24 V | 1" | V70F 50S 24 | 103,00 |
| 7.030.01685 | VS 32 F-F | VS total flow valve female-female 24 V | 1"1/4 | V200F 120S 24 | 254,00 |
| 7.030.01687 | VS 40 F-F | VS total flow valve female-female 24 V | 1"1/2 | V200F 120S 24 | 261,00 |



3-way valve VS series

| Code | Model | Description | Size | Motor | Price € |
|-------------|------------|----------------------------|------|---------------------|---------|
| 7.030.01715 | VS 3 - 20 | 3-way VS valve DN 20 - FFM | 3/4" | V200F 120S 230 V M1 | 121,00 |
| 7.030.01716 | VS 3 - 25 | 3-way VS valve DN 25 - FFM | 1" | V200F 120S 230 V M1 | 125,00 |
| 7.030.01699 | VS 3 - 20E | 3-way VS valve DN 20 - MMM | 3/4" | V200F 120S 230 V M1 | 121,00 |
| 7.030.01701 | VS 3 - 25E | 3-way VS valve DN 25 - MMM | 1" | V200F 120S 230 V M1 | 125,00 |

| | | | | | |
|-------------|------------|----------------------------|------|-------------------|--------|
| 7.030.01717 | VS 3 - 20 | 3-way VS valve DN 20 - FFM | 3/4" | V200F 120 S 230 V | 105,00 |
| 7.030.01718 | VS 3 - 25 | 3-way VS valve DN 25 - FFM | 1" | V200F 120 S 230 V | 109,00 |
| 7.030.01719 | VS 3 - 20E | 3-way VS valve DN 20 - MMM | 3/4" | V200F 120 S 230 V | 105,00 |
| 7.030.01720 | VS 3 - 25E | 3-way VS valve DN 25 - MMM | 1" | V200F 120 S 230 V | 109,00 |

| | | | | | |
|-------------|------------|----------------------------|------|---------------------|--------|
| 7.030.01700 | VS 3 - 20 | 3-way VS valve DN 20 - FFM | 3/4" | V200F 120 S 24 V M1 | 121,00 |
| 7.030.01721 | VS 3 - 25 | 3-way VS valve DN 25 - FFM | 1" | V200F 120 S 24 V M1 | 125,00 |
| 7.030.01722 | VS 3 - 20E | 3-way VS valve DN 20 - MMM | 3/4" | V200F 120 S 24 V M1 | 121,00 |
| 7.030.01723 | VS 3 - 25E | 3-way VS valve DN 25 - MMM | 1" | V200F 120 S 24 V M1 | 125,00 |

| | | | | | |
|-------------|------------|----------------------------|------|------------------|--------|
| 7.030.01724 | VS 3 - 20 | 3-way VS valve DN 20 - FFM | 3/4" | V200F 120 S 24 V | 105,00 |
| 7.030.01725 | VS 3 - 25 | 3-way VS valve DN 25 - FFM | 1" | V200F 120 S 24 V | 109,00 |
| 7.030.01726 | VS 3 - 20E | 3-way VS valve DN 20 - MMM | 3/4" | V200F 120 S 24 V | 105,00 |
| 7.030.01727 | VS 3 - 25E | 3-way VS valve DN 25 - MMM | 1" | V200F 120 S 24 V | 109,00 |





mixer and diverter valves



28/30 **MK SERIES**
with shutoff



31/33 **MK DN SERIES**
with shutoff



33/35 **VPR SERIES**
with shutoff



36/39 **VM/VF 1000 SERIES**
with rotor



40/41 **VM/VDM 2000 SERIES**
with rotor



42/44 **VM 3000 SERIES**
with rotor



45/46 **VMX SERIES**
with rotor

MK SERIES

shutoff valves that can be motorized

Series MK three-way shut-off valves can be used as shunt, mixing and on/off valves in heating, air conditioning and ventilation systems and in systems producing domestic hot water. MK valves can also be powered using MUT series AS motors and/or by motors commonly found on the market. Series MK three-way shut-off valves solve all the problems that installers encounter when they use traditional mixing valves. Series MK three-way shut-off valves guarantee:

- Extremely low flow-by even when used as shunt valves in systems with high differential pressures.
- Equal percentage adjustment curves, the best for temperature control in heating and conditioning systems.
- Impossible shut-off ball seizure even when calcium carbonate or other slag and deposits are present in the system.
- Operating temperature range from $4 \div 150$ °C.

These features make this valve highly suited to adjust temperatures in hot water production systems and to adjust temperatures in systems using structurally-embedded heating panels. Body and shut-off ball are made of brass. The stem is made of stainless steel. Stem seal is made using O-rings that are easily replaced in case of wear.



TECHNICAL DATA



Type of movement
Can be motorized



Nominal pressure
PN16



Fl temperature limits
 $4 \div 150$ °C [max]



leak
 $K_{vo} \leq 0,1 \% Kvs$



MK 2-WAY



MK 3-WAY

CERTIFICATION



2-way globe valve, MK series

Shutoff valves for hot/cold water

| Code | Mod. | Description | Size | PN | KVS | Price € |
|-------------|------|--|-------|----|-----|---------|
| 7.030.00361 | MK | 2-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Female Gas connections - PN 16 | 1/2" | 16 | 3,0 | 99,50 |
| 7.030.00362 | MK | 2-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Female Gas connections - PN 16 | 3/4" | 16 | 6,3 | 99,50 |
| 7.030.00363 | MK | 2-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Female Gas connections - PN 16 | 1" | 16 | 9,0 | 106,90 |
| 7.030.00364 | MK | 2-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Female Gas connections - PN 16 | 1"1/4 | 16 | 14 | 115,00 |
| 7.030.00360 | MK | 2-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Female Gas connections - PN 16 | 1"1/2 | 16 | 19 | 126,50 |
| 7.030.00365 | MK | 2-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Female Gas connections - PN 16 | 2" | 16 | 25 | 205,00 |



3-way globe valve, MK series

Shutoff valves for hot/cold water

| Code | Mod. | Description | Size | PN | KVS | Price € |
|-------------|------|--|-------|----|-----|---------|
| 7.006.00643 | MK | 3-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Female Gas connections - PN 16 | 1/2" | 16 | 3,0 | 99,50 |
| 7.006.00652 | MK | 3-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Female Gas connections - PN 16 | 3/4" | 16 | 6,3 | 99,50 |
| 7.006.00649 | MK | 3-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Female Gas connections - PN 16 | 1" | 16 | 9,0 | 106,90 |
| 7.006.00646 | MK | 3-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Female Gas connections - PN 16 | 1"1/4 | 16 | 14 | 115,00 |
| 7.006.00640 | MK | 3-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Female Gas connections - PN 16 | 1"1/2 | 16 | 19 | 126,50 |
| 7.006.00623 | MK | 3-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Female Gas connections - PN 16 | 2" | 16 | 25 | 205,00 |



| | | | | | | |
|-------------|------|---|--------|----|----|--------|
| 7.030.01373 | MK E | 3-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Male Gas connections PN 16-DN25 | 1" 1/2 | 16 | 9 | 126,50 |
| 7.030.01376 | MK E | 3-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Male Gas connections - PN 16-DN32 | 2" | 16 | 14 | 205,00 |
| 7.030.01377 | MK E | 3-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Male Gas connections - PN 16-DN40 | 2" 1/4 | 16 | 19 | 214,00 |
| 7.030.01378 | MK E | 3-way shutoff valve - brass body - brass shutoff and seat - stainless steel shaft - Male Gas connections - PN 16-DN50 | 2" 3/4 | 16 | 25 | 229,00 |



Motors for MK series shut-off valves

| Code | Model | Description | Volt | Price € |
|-------------|--------------|---|-------|---------|
| 7.006.00662 | AS/250/75/00 | Motor for MK valves from 1/2" to 2": ABS casing - Max. load 25 Kg - strike time 75 sec. - On/Off 3 points | 230 V | 176,30 |
| 7.006.00669 | AS/250/75/00 | Motor for MK valves from 1/2" to 2": ABS casing - Max. load 25 Kg - strike time 75 sec. - On/Off 3 points | 24 V | 186,10 |
| 7.006.00619 | AS/250/75/M0 | Motor for MK valves from 1/2" to 2": ABS casing - Max. load 25 Kg - strike time 75 sec. - with self-learning and modulation | 24 V | 281,30 |



| | | | | |
|-------------|---------------|--|-------|--------|
| 7.006.00663 | AS/250/180/00 | Motor for MK valve from 1/2" to 2": ABS casing - Max. load 25 kg - run time 180 sec. - On/Off 3 points | 230 V | 176,30 |
| 7.030.01143 | AS/250/180/00 | Motor for MK valve from 1/2" to 2": ABS casing - Max. load 25 kg - run time 180 sec. - On/Off 3 points | 24 V | 194,60 |
| 7.006.00674 | AS/250/180/M0 | Motor for MK valve from 1/2" to 2": ABS casing - Max. load 25 kg - run time 180 sec. - with self-learning and modulation | 24 V | 281,30 |

| | | | | |
|-------------|---------------|---|-------|--------|
| 7.006.00664 | AS/800/240/00 | Motor for MK valves DN 50/65: ABS casing - Max. load: 80 Kg - strike time 240 sec. / 30 mm - On/Off 3 points | 230 V | 227,00 |
| 7.006.00683 | AS/800/240/00 | Motor for MK valves DN 50/65: ABS casing - Max. load: 80 Kg - strike time 240 sec. / 30 mm. - On/Off 3 points | 24 V | 234,00 |
| 7.006.00677 | AS/800/240/M0 | Motor for MK valves DN 50/65: ABS casing - Max. load: 80 Kg - strike time 240 sec. /30 mm - with self-learning and modulation | 24 V | 321,00 |



| | | | | |
|-------------|--------|---|--|------|
| 7.006.00602 | KIT MK | Assembly kit for MK valves from 1/2" to 2" only obligatory for AS800 motors | | 5,00 |
|-------------|--------|---|--|------|

| | | | | |
|-------------|----------|------------------------------------|--|-------|
| 7.030.01644 | KIT MK/1 | Honeywell V5013R valve adapter kit | | 20,00 |
|-------------|----------|------------------------------------|--|-------|



MK DN SERIES

shutoff valves that can be motorized

Series MK DN flanged, three-way shut-off valves can be used as shunt, mixing and on/off valves in heating, air conditioning and ventilation systems. Series MK DN three-way shut-off valves solve all the problems that installers encounter when they use traditional mixing valves. MK DN valve series can be motorized using MUT AS motor series and/or motors that are commercially available. Series MK DN three-way shut-off valves guarantee:

- Extremely low flow-by even when used as shunt valves in systems with high differential pressures;
- Equal percentage adjustment curves, the best for temperature control in heating and conditioning systems;
- Impossible shut-off plug seizure even when calcium carbonate or other slag and deposits are present in the system;
- Operating temperature range from $4 \div 150$ °C.

These features make this valve highly suited to adjust temperatures in hot water production systems and to adjust temperatures in systems using structurally-embedded heating panels. Cast iron body, brass shut-off plug and stainless steel stem. Flanges are made according to UNI 2223 and DIN 2533 standards. Stem seal is made using O-rings that are easily replaced in case of wear.



MK DN 2-WAY



MK DN 3-WAY

TECHNICAL DATA



Type of movement
Can be motorized



Nominal pressure
PN16



Fl temperature limits
 $4 \div 150$ °C [max]



Leak
 $Kvo \leq 0,1 \% Kvs$

CERTIFICATION



MK DN series flanged 2/3-way shut-off valves

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-------|--|--------|----|-----|---------|
| 7.030.01658 | MK | 2 way shutoff valve - cast iron body - brass shutoff - stainless steel shaft - flanged connections - PN 16 | DN 80* | 16 | 100 | 548,00 |

* Other sizes available upon request

| | | | | | | |
|-------------|----|---|--------|----|-----|---------|
| 7.006.00255 | MK | 3-way shutoff valve- cast iron body - brass shutoff stainless steel shaft - flanged connections - PN 16 | DN 50 | 16 | 40 | 365,00 |
| 7.006.00426 | MK | 3-way shutoff valve- cast iron body - brass shutoff stainless steel shaft - flanged connections- PN 16 | DN 65 | 16 | 63 | 490,00 |
| 7.006.00428 | MK | 3-way shutoff valve- cast iron body - brass shutoff stainless steel shaft - flanged connections- PN 16 | DN 80 | 16 | 100 | 598,00 |
| 7.006.00381 | MK | 3-way shutoff valve- cast iron body - brass shutoff stainless steel shaft - flanged connections- PN 16 | DN 100 | 16 | 160 | 1100,00 |
| 7.006.00743 | MK | 3-way shutoff valve- cast iron body - brass shutoff stainless steel shaft - flanged connections- PN 16 | DN 125 | 16 | 250 | 1890,00 |
| 7.006.00717 | MK | 3-way shutoff valve- cast iron body - brass shutoff stainless steel shaft - flanged connections- PN 16 | DN 150 | 16 | 360 | 2200,00 |



Counter flange

| Code | Description | Size | Price € |
|-------------|-----------------------------|--------|---------|
| 7.030.02041 | Counter flange to be welded | DN 50 | 20,50 |
| 7.030.02042 | Counter flange to be welded | DN 65 | 24,50 |
| 7.030.02043 | Counter flange to be welded | DN 80 | 31,80 |
| 7.030.02044 | Counter flange to be welded | DN 100 | 37,50 |
| 7.030.02045 | Counter flange to be welded | DN 125 | 50,10 |
| 7.030.02046 | Counter flange to be welded | DN 150 | 63,50 |



Motors for MK DN series flanged shut-off valves

| Code | Model | Description | Volt | Price € |
|-------------|------------------|---|-------|---------|
| 7.006.00664 | AS/800 240/00 | Motor for MK valve DN 50/65: ABS casing - Max. load 80 Kg - strike time 240 sec. / 30 mm - On/Off 3 points | 230 V | 227,00 |
| 7.006.00683 | AS/800 240/00 | Motor for MK valve DN 50/65: ABS casing - Max. load 80 Kg - strike time 240 sec. / 30 mm - On/Off 3 points | 24 V | 234,00 |
| 7.006.00677 | AS/800 240/M0 | Motor for MK valve DN 50/65: ABS casing - Max. load 80 Kg - strike time 240 sec. / 30 mm - with self-learning and modulation | 24 V | 321,00 |



| | | | | |
|-------------|-------------------|--|-------|--------|
| 7.006.00503 | AS/1400 150/00 | Motor for MK valve DN 50/65/80/100/125/150: ABS casing - Max. load 140 Kg - strike time 150 sec. / 30 mm. ON/Off 3 points | 230 V | 314,00 |
| 7.006.00532 | AS/1400 150/00 | Motor for MK valve DN 50/65/80/100/125/150: ABS casing - Max. load 140 Kg - strike time 150 sec. / 30 mm. ON/Off 3 points | 24 V | 324,00 |
| 7.006.00603 | AS/1400 150/M0 | Motor for MK valve DN 50/65/80/100/125/150: ABS casing - Max. load 140 Kg - strike time 150 sec. / 30 mm - with self-learning and modulation | 24 V | 512,00 |



| | | | | |
|-------------|-------------------|---|-------|---------|
| 7.030.02000 | AS/3200 150/00 | Motor for MK DN 125/150 valve: ABS housing – Max. load 320 Kg – run time 150 sec. / 30 mm. ON/Off 3 points – with multi-purpose hooking bracket | 230 V | 1150,00 |
| 7.030.02014 | AS/3200 150/00 | Motor for MK DN 125/150 valve: ABS housing – Max. load 320 Kg – run time 150 sec. / 30 mm. ON/Off 3 points – with multi-purpose hooking bracket | 24 V | 1200,00 |
| 7.030.02015 | AS/3200 150/M0 | Motor for MK DN 125/150 valve: ABS housing – Max. load 320 Kg – run time 150 sec. / 30 mm. with modulated self-learning – with multi-purpo- se connecting bracket | 24 V | 1350,00 |



Accessories

| Code | Model | Description | Price € |
|-------------|-----------|---------------------------|---------|
| 7.030.01619 | KIT MK-DN | Siemens motor adapter kit | 30,00 |



VPR SERIES

shutoff valves that can be motorized

The VPR series of 3-way shutter valves may be used as deviating or mixing valves (water, water + max. 30% glycol) in heating, conditioning and ventilating systems. They may be motor-driven with MUT motors series V3, on-off and modulating. The VPR valve is available in two versions: - N.O. (normally open): if the stem of the valve is not pressed, the direct passage (AB-A) is open and the by-pass (AB-B) is closed. - N.C. (normally closed): if the stem of the valve is not pressed, the direct passage (AB-B) is open and the by-pass (AB-A) is closed.

VPR valves present:

- High Kvs values.
- Possibility of precise modulation thanks to the long travel and shape of the shutter, which allows both the direct passage and the by-pass to be opened immediately, guaranteeing a modulation of the flows in a field equal to the whole travel.
- Very low leakage, even if used in systems with a high differential pressure.

The valves are particularly suitable for use in regulating temperature in underfloor heating systems.



TECHNICAL DATA



Type of movement
Manual



Type of movement
Can be motorized



Nominal pressure
PN16



Fl temperature limits
-20 + 130 °C [max]



VPR 3-WAY



VPR series valves

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-----------|--|------|----|-----|---------|
| 7.021.00067 | VPR 6NO | 3-way mixer/diverter valve- strike 6 mm - NO - Male gas connections | 1" | 16 | 4,6 | 55,00 |
| 7.021.00037 | VPR 6NC | 3-way mixer/diverter valve- strike 6 mm - NC - Male gas connections | 1" | 16 | 5,0 | 55,00 |
| 7.021.00028 | VPR 2,5NO | 3-way mixer/diverter valve- strike 2,5 mm - NO - Male gas connections | 1" | 16 | 3,9 | 55,00 |
| 7.021.00038 | VPR 2,5NC | 3-way mixer/diverter valve- strike 2,5 mm - NC - Male gas connections | 1" | 16 | 2,8 | 55,00 |



Motors for VPR series valves

| Code | Model | Description | Volt | Price € |
|-------------|--------------|--|-------|---------|
| 7.011.00041 | V3 180/24 | Actuator 24 V - On/Off 3 points | 24 V | 96,00 |
| 7.011.00107 | V3 180/230 | Actuator 230 V - On/Off 3 points | 230 V | 110,00 |
| 7.011.00102 | V3 180/24/M0 | Modulating actuator - 24 V - 0-10 Vdc and 2-10 Vdc | 24 V | 152,00 |



| | | | | |
|-------------|------------|---|--------|--------|
| 7.030.01292 | V3 180/230 | Actuator 230 V - on/off - 180 sec. - 3 points - ECO | 110,00 | 110,00 |
| 7.030.01447 | V3 180/24 | Actuator 24 V - on/off - 180 sec. - 3 points - ECO | 96,00 | 96,00 |



| | | | |
|-------------|-----|--|-------|
| 7.009.00165 | ARM | Electric actuator - 230 V - N.O. | 67,20 |
| 7.030.00432 | ARM | Electric actuator ARM model - 24 V - N.O. | 69,30 |
| 7.030.00433 | ARM | Electric actuator ARM model - 110 V - N.O. | 72,40 |



VM/VF 1000 SERIES

rotary valves that can be motorized

This type of valve is used in central heating systems to ensure a hot return to the boiler and consequently achieve thermal operation at sufficiently high temperatures to prevent vapor condensation in the smokestack. Vapors, in combination with the products of combustion, can generate corrosive compounds that reduce the operating life of the boiler.

MUT valves are supplied with manual control systems and can be easily motorized at any time using MUT M Series and V Series type motors and/or commercially available motors.

MUT valves consist of a cast-iron body and an internal rotor. The rotation angle of the rotor is approximately 90°. Mixing is done by a circular segment rotor in models VDM and VDF and by a butterfly valve in models VM and VF.

TECHNICAL DATA



Type of movement
Manual



Type of movement
Can be motorized



Nominal pressure
PN10 - PN6 according to the model



Fl temperature limits
2 ÷ 110 °C [max]



Leak
Kvo ≤ 0,015 % Kvs

CERTIFICAZIONI



VM 3-WAY



VDM 3-WAY



VF 3-WAY



VDF 3-WAY



VDF PLUS 3-WAY



VM 4-WAY



VF 4-WAY

1000 series mixing/diverting valves

ANCC homologated - with anti seizure bushing. mixer/diverter valves for hot/cold water

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-------|--|-------|----|-----|---------|
| 7.007.00185 | VM 3 | 3-way mixer valve - Female gas connections | 3/4" | 10 | 20 | 73,00 |
| 7.007.00186 | VM 3 | 3-way mixer valve - Female gas connections | 1" | 10 | 30 | 74,00 |
| 7.007.00187 | VM 3 | 3-way mixer valve - Female gas connections | 1"1/4 | 10 | 37 | 84,00 |
| 7.007.00188 | VM 3 | 3-way mixer valve - Female gas connections | 1"1/2 | 10 | 38 | 90,00 |
| 7.007.00189 | VM 3 | 3-way mixer valve - Female gas connections | 2" | 10 | 45 | 107,00 |
| 7.007.00190 | VM 3 | 3-way mixer valve - Female gas connections | 2"1/2 | 10 | 79 | 162,00 |



| | | | | | | |
|-------------|-------|---|-------|----|----|--------|
| 7.007.00166 | VDM 3 | 3-way mixer/diverter valve - Female gas connections | 3/4" | 10 | 20 | 76,00 |
| 7.007.00167 | VDM 3 | 3-way mixer/diverter valve - Female gas connections | 1" | 10 | 30 | 77,00 |
| 7.007.00168 | VDM 3 | 3-way mixer/diverter valve - Female gas connections | 1"1/4 | 10 | 37 | 82,00 |
| 7.007.00169 | VDM 3 | 3-way mixer/diverter valve - Female gas connections | 1"1/2 | 10 | 38 | 89,00 |
| 7.007.00170 | VDM 3 | 3-way mixer/diverter valve - Female gas connections | 2" | 10 | 45 | 108,00 |
| 7.007.00171 | VDM 3 | 3-way mixer/diverter valve - Female gas connections | 2"1/2 | 10 | 79 | 155,00 |



| | | | | | | |
|-------------|------|---|--------|---|-----|--------|
| 7.007.00203 | VF 3 | 3-way mixer valve - Flanged connections | DN 32 | 6 | 50 | 115,00 |
| 7.007.00565 | VF 3 | 3-way mixer valve - Flanged connections | DN 40 | 6 | 60 | 120,00 |
| 7.007.00205 | VF 3 | 3-way mixer valve - Flanged connections | DN 50 | 6 | 70 | 160,00 |
| 7.007.00206 | VF 3 | 3-way mixer valve - Flanged connections | DN 65 | 6 | 90 | 205,00 |
| 7.007.00207 | VF 3 | 3-way mixer valve - Flanged connections | DN 80 | 6 | 150 | 255,00 |
| 7.007.00208 | VF 3 | 3-way mixer valve - Flanged connections | DN 100 | 6 | 200 | 320,00 |
| 7.007.00209 | VF 3 | 3-way mixer valve - Flanged connections | DN 125 | 6 | 250 | 530,00 |



| | | | | | | |
|-------------|-------|--|--------|---|-----|--------|
| 7.007.00210 | VDF 3 | 3-way mixer/diverter valve - Flanged connections | DN 32 | 6 | 60 | 115,00 |
| 7.007.00566 | VDF 3 | 3-way mixer/diverter valve - Flanged connections | DN 40 | 6 | 70 | 120,00 |
| 7.007.00212 | VDF 3 | 3-way mixer/diverter valve - Flanged connections | DN 50 | 6 | 80 | 160,00 |
| 7.007.00213 | VDF 3 | 3-way mixer/diverter valve - Flanged connections | DN 65 | 6 | 90 | 210,00 |
| 7.007.00214 | VDF 3 | 3-way mixer/diverter valve - Flanged connections | DN 80 | 6 | 150 | 265,00 |
| 7.007.00215 | VDF 3 | 3-way mixer/diverter valve - Flanged connections | DN 100 | 6 | 200 | 330,00 |
| 7.007.00216 | VDF 3 | 3-way mixer/diverter valve - Flanged connections | DN 125 | 6 | 250 | 540,00 |



1000 series mixing/diverting valves

ANCC homologated - with anti seizure bushing. mixer/diverter valves for hot/cold water

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-------------------|---|--------|----|-----|---------|
| 7.030.02039 | VDF 3 PLUS | 3-way mixer valve - Flanged connections | DN 32 | 6 | 60 | 130,00 |
| 7.030.01894 | VDF 3 PLUS | 3-way mixer valve - Flanged connections | DN 40 | 6 | 70 | 135,00 |
| 7.030.01895 | VDF 3 PLUS | 3-way mixer valve - Flanged connections | DN 50 | 6 | 80 | 190,00 |
| 7.030.01474 | VDF 3 PLUS | 3-way mixer valve - Flanged connections | DN 65 | 6 | 90 | 240,00 |
| 7.030.01475 | VDF 3 PLUS | 3-way mixer valve - Flanged connections | DN 80 | 6 | 150 | 335,00 |
| 7.030.01476 | VDF 3 PLUS | 3-way mixer valve - Flanged connections | DN 100 | 6 | 200 | 370,00 |
| 7.030.02040 | VDF 3 PLUS | 3-way mixer valve - Flanged connections | DN 125 | 6 | 250 | 570,00 |



| | | | | | | |
|-------------|------|---|-------|----|----|--------|
| 7.007.00159 | VM 4 | 4-way mixer valve - Female gas connections. | 3/4" | 10 | 20 | 78,00 |
| 7.007.00160 | VM 4 | 4-way mixer valve - Female gas connections. | 1" | 10 | 30 | 79,00 |
| 7.007.00161 | VM 4 | 4-way mixer valve - Female gas connections. | 1"1/4 | 10 | 37 | 82,00 |
| 7.007.00162 | VM 4 | 4-way mixer valve - Female gas connections. | 1"1/2 | 10 | 38 | 90,00 |
| 7.007.00163 | VM 4 | 4-way mixer valve - Female gas connections. | 2" | 10 | 45 | 109,00 |
| 7.007.00164 | VM 4 | 4-way mixer valve - Female gas connections. | 2"1/2 | 10 | 79 | 162,00 |



| | | | | | | |
|-------------|------|---|--------|---|-----|--------|
| 7.007.00191 | VF 4 | 4-way mixer valve - Flanged connections | DN 32 | 6 | 50 | 140,00 |
| 7.007.00192 | VF 4 | 4-way mixer valve - Flanged connections | DN 40 | 6 | 60 | 150,00 |
| 7.007.00193 | VF 4 | 4-way mixer valve - Flanged connections | DN 50 | 6 | 70 | 185,00 |
| 7.007.00194 | VF 4 | 4-way mixer valve - Flanged connections | DN 65 | 6 | 90 | 230,00 |
| 7.007.00195 | VF 4 | 4-way mixer valve - Flanged connections | DN 80 | 6 | 150 | 340,00 |
| 7.007.00196 | VF 4 | 4-way mixer valve - Flanged connections | DN 100 | 6 | 200 | 380,00 |
| 7.007.00197 | VF 4 | 4-way mixer valve - Flanged connections | DN 125 | 6 | 250 | 695,00 |



Accessories for 1000 Series

| Code | Model | Description | Price € |
|-------------|-------------|---|---------|
| 7.007.00626 | Kit bussola | Bushing kit VF3 2" 1/2 S1000 | 62,00 |
| 7.007.00630 | Kit bussola | Bushing kit VF3 4" - 5" S1000 | 84,00 |
| 7.007.00584 | Kit bussola | Bushing kit VF3 - VM3 from 3/4" to 2" S1000 | 60,00 |
| 7.007.00625 | Kit bussola | Bushing kit VF4 - VDF3 2" 1/2 S1000 | 62,00 |
| 7.007.00629 | Kit bussola | Bushing kit VF4 - VDF3 4" 5" S1000 | 84,00 |
| 7.007.00583 | Kit bussola | Bushing kit VF4 - VM4 - VDF3 - VDM3 3/4 to 2" S1000 | 62,00 |
| 7.007.00628 | Kit bussola | Bushing kit VM3 2" 1/2 VF3 3" S1000 | 84,00 |
| 7.007.00627 | Kit bussola | Bushing kit VM4 - VDM3 2" 1/2 VF4 - VDF3 3" S1000 | 84,00 |



| | | | |
|-------------|---------------|--------------------------|-------|
| 6.030.01445 | Kit manicotto | 1000 series manifold kit | 12,00 |
|-------------|---------------|--------------------------|-------|



VM/VDM 2000 SERIES

rotary valves that can be motorized

This type of valve is used in central heating systems to ensure a hot return to the boiler and consequently achieve thermal operation at sufficiently high temperatures to prevent vapor condensation in the smokestack. Vapors, in combination with the products of combustion, can generate corrosive compounds that reduce the operating life of the boiler.

MUT valves are supplied with manual control systems and can be easily motorized at any time using MUT M Series and V Series type motors and/or commercially available motors. MUT valves consist of a cast-iron body and internal rotor. The rotation angle is approximately 90°.

Mixing is done by a circular segment rotor in models VDM and VDF and by a butterfly valve in models VM and VF.

TECHNICAL DATA



Type of movement
Manual



Type of movement
Can be motorized



Nominal pressure
PN6



Fl temperature limits
2 ÷ 110 °C [max]



Leak
Kvo ≤ 0,02 % Kvs

CERTIFICATION



VM 3-WAY



VM 4-WAY

2000 series mixing/diverting valves

ANCC homologated - with anti seizure bushing. Mixer/diverter valves for hot/cold water

| Code | Model | Description | Size | KVS | Price € |
|-------------|-------|--|--------|-----|---------|
| 7.007.00176 | VM3 | 3-way mixer valve - Female gas connections | 3/4" | 18 | 62,50 |
| 7.007.00177 | VM3 | 3-way mixer valve - Female gas connections | 1" | 22 | 63,50 |
| 7.007.00178 | VM3 | 3-way mixer valve - Female gas connections | 1" 1/4 | 22 | 67,50 |
| 7.007.00179 | VM3 | 3-way mixer valve - Female gas connections | 1" 1/2 | 22 | 72,50 |



| | | | | | |
|-------------|------|---|--------|----|-------|
| 7.007.00181 | VDM3 | 3-way mixing/diverting valve - Female gas connections | 3/4" | 20 | 63,50 |
| 7.007.00182 | VDM3 | 3-way mixing/diverting valve - Female gas connections | 1" | 22 | 64,50 |
| 7.007.00183 | VDM3 | 3-way mixing/diverting valve - Female gas connections | 1" 1/4 | 25 | 68,50 |
| 7.007.00184 | VDM3 | 3-way mixing/diverting valve - Female gas connections | 1" 1/2 | 25 | 73,50 |



| | | | | | |
|-------------|-----|--|--------|----|-------|
| 7.007.00172 | VM4 | 4-way mixer valve - Female gas connections | 3/4" | 18 | 63,50 |
| 7.007.00173 | VM4 | 4-way mixer valve - Female gas connections | 1" | 20 | 64,50 |
| 7.007.00174 | VM4 | 4-way mixer valve - Female gas connections | 1" 1/4 | 25 | 68,50 |
| 7.007.00175 | VM4 | 4-way mixer valve - Female gas connections | 1" 1/2 | 25 | 73,50 |

Accessories for 2000 Series

| Code | Model | Description | Price € |
|-------------|-------------|-------------------------------|---------|
| 7.030.00889 | Bushing kit | Bushing kit VDM3 1" 1/2 S2000 | 42,50 |
| 7.030.00338 | Bushing kit | Bushing kit VM4 S2000 | 42,50 |



| | | | |
|-------------|--------------|--------------------------|-------|
| 6.030.01447 | Manifold kit | 2000 series manifold kit | 12,00 |
|-------------|--------------|--------------------------|-------|



VM 3000 SERIES

rotary valves that can be motorized

This type of valve is used in central heating systems to guarantee a hot return to the boiler and consequently keep thermal levels high enough to prevent vapor condensation. Mixing, with a linear characteristic curve for delivery and return water, is performed by the shape of the profiled paths. Mixing is done by a rotor with circular segment in the three-way model and by a butterfly rotor in the four-way model. MUT valves are furnished with manual controls. They can be motorized at any time and without any problems by using MUT V series motors and/or motors marketed by manufacturers of control systems. MUT series 3000 valves are made with a brass body and internal rotor. The rotation angle of the rotor, used for regulation, is approximately 90° and corresponds to the graduations going from 0 to 10 on the identification plate (it is without stops and can consequently rotate 360°).

TECHNICAL DATA



Type of movement
Manual



Type of movement
Can be motorized



Nominal pressure
PN10



Fl temperature limits
5 ÷ 110 °C [max]



Leak
Kvo ≤ (0,3 - 1) % Kvs according to the model

CERTIFICATION



VDM 3-WAY



VM 4-WAY

3000R series mixing/diverting valves

Distance between axes 72 mm/brass. Mixer/diverter valves for hot/cold water *¹

| Code | Model | Description | Size | PN | KVS | Price € |
|--------------|------------|--|------|----|-----|---------|
| 7.030.00595 | VDM3 3000R | 3-way mixer diverter valve mod. VDM3000R - Female gas connections | 1/2" | 10 | 1 | 47,50 |
| 7.030.00596 | VDM3 3000R | 3-way mixer diverter valve mod. VDM3000R - Female gas connections | 1/2" | 10 | 1,5 | 47,50 |
| 7.030.000597 | VDM3 3000R | 3-way mixer diverter valve mod. VDM3000R - Female gas connections | 1/2" | 10 | 2,5 | 47,50 |



| | | | | | | |
|-------------|------------|--|------|----|-----|-------|
| 7.020.00090 | VDM3 3000R | 3-way mixer diverter valve mod. VDM3000R - Female gas connections | 3/4" | 10 | 6,3 | 48,50 |
| 7.030.00569 | VDM3 3000R | 3-way mixer diverter valve mod. VDM3000R - Female gas connections | 1" | 10 | 6,3 | 51,50 |

| | | | | | | |
|-------------|-----------|--|------|----|-----|-------|
| 7.020.00093 | VM4 3000R | 4-way mixer valve mod. VM4 3000R - Female gas connections | 3/4" | 10 | 6,3 | 48,50 |
| 7.030.00857 | VM4 3000R | 4-way mixer valve mod. VM4 3000R - Female gas connections | 1" | 10 | 6,3 | 52,50 |



3000M series mixing/diverting valves

Distance between axes 80 mm/brass. Mixer/diverter valves for hot/cold water *²

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|------------|--|-------|----|-----|---------|
| 7.020.00125 | VDM3 3000M | 3-way mixer diverter valve mod. VDM3000M - Female gas connections | 3/4" | 10 | 6,3 | 55,50 |
| 7.030.01211 | VDM3 3000M | 3-way mixer diverter valve mod. VDM3000M - Female gas connections | 1" | 10 | 12 | 58,70 |
| 7.020.00127 | VDM3 3000M | 3-way mixer diverter valve mod. VDM3000M - Female gas connections | 1"1/4 | 10 | 18 | 59,70 |



| | | | | | | |
|-------------|-----------|--|-------|----|-----|-------|
| 7.020.00128 | VM4 3000M | 4-way mixer valve mod. VM4 3000M - Female gas connections | 3/4" | 10 | 6,3 | 56,50 |
| 7.020.00129 | VM4 3000M | 4-way mixer valve mod. VM4 3000M - Female gas connections | 1" | 10 | 6,3 | 59,70 |
| 7.020.00130 | VM4 3000M | 4-way mixer valve mod. VM4 3000M - Female gas connections | 1"1/4 | 10 | 18 | 61,80 |



*¹ Versions available with male connection

*² Versions available with ring nut connections

3000 series mixing/diverting valves

Distance between axes 88 mm/brass. Mixer/diverter valves for hot/cold water *

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-----------|---|-------|----|-----|---------|
| 7.020.00020 | VDM3 3000 | 3-way mixer diverter valve- mod. VDM3000 Female gas connections | 3/4" | 10 | 6,3 | 56,50 |
| 7.020.00001 | VDM3 3000 | 3-way mixer diverter valve- mod. VDM3000 Female gas connections | 1" | 10 | 12 | 59,70 |
| 7.020.00026 | VDM3 3000 | 3-way mixer diverter valve- mod. VDM3000 Female gas connections | 1"1/4 | 10 | 18 | 61,80 |



| | | | | | | |
|-------------|----------|--|-------|----|-----|-------|
| 7.020.00021 | VM4 3000 | 4-way mixer diverter valve- mod. VM4 3000 Female gas connections | 3/4" | 10 | 6,3 | 57,60 |
| 7.020.00012 | VM4 3000 | 4-way mixer diverter valve- mod. VM4 3000 Female gas connections | 1" | 10 | 12 | 60,80 |
| 7.020.00028 | VM4 3000 | 4-way mixer diverter valve- mod. VM4 3000 Female gas connections | 1"1/4 | 10 | 18 | 62,90 |



3000E series mixing/diverting valves

Mixer/diverter valves for hot/cold water

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|------------|---|--------|----|-----|---------|
| 7.030.01283 | VDM3 3000M | 3-way mixer diverter valve- distance between axes 88 mm Male gas connections | 1" | 10 | 12 | 59,70 |
| 7.030.01282 | VDM3 3000M | 3-way mixer diverter valve- distance between axes 98 mm Male gas connections | 1" 1/4 | 10 | 20 | 61,80 |
| 7.030.01281 | VDM3 3000M | 3-way mixer diverter valve- distance between axes 110 mm Male gas connections | 1" 1/2 | 10 | 41 | 69,20 |
| 7.030.01277 | VDM3 3000M | 3-way mixer diverter valve- distance between axes 116 mm Male gas connections | 2" | 10 | 56 | 108,00 |



Accessories for the 3000 VMX series

| Codice | Description | Price € |
|-------------|---------------------------------|---------|
| 7.030.01469 | Valve seal kit V3000 | 10,00 |
| 7.030.01470 | Valve seal kit VMX-X/H,V3000R/M | 10,00 |



* Version available with ring nut connections

VMX SERIES

rotary valves that can be motorized

This type of valve is used in central heating system to ensure a hot return to the boiler and consequently to prevent vapor condensation in the same boiler, or to devide the thermic-load in the ambients. MUT valves are supplied with manual control but can be easily and simply motorized at any time using MUT motors V series and/ or motors commonly found in commerce. MUT valves are made with cast-iron bodies and internal rotor. Rotor rotation angle uses for the regulation, is about 90°, correspondent to the sequence from 0 to 10 on the reference tally (as there is no end-run it can rotate 360°).

TECHNICAL DATA



Type of movement
Manual



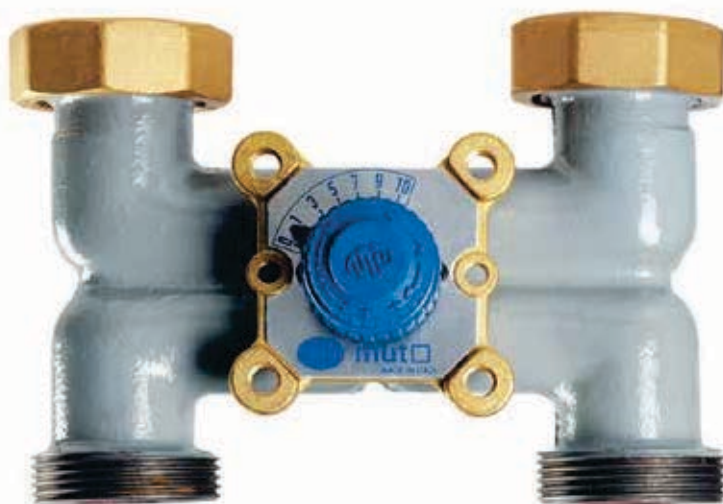
Type of movement
Can be motorized



Nominal pressure
PN10



Fl temperature limits
2 ÷ 110 °C [max]



CERTIFICATION



VMX VMH series mixing/diverting valves

Mixer/diverter valves for hot/cold water

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|----------|--|-------|----|-----|---------|
| 7.019.00014 | VMX - X | 3-way mixer diverter valve - distance between axes 90 2 Male connections + 2 with Ring nuts | DN 40 | 10 | 8,0 | 84,00 |
| 7.019.00025 | VMX - XM | 3-way mixer diverter valve- distance between axes 90 Male connections | DN 40 | 10 | 8,0 | 72,00 |
| 7.019.00011 | VMX - H | 4-way mixer diverter valve - distance between axes 125 2 Male connections + 2 with ring nuts | DN 40 | 10 | 6,3 | 83,00 |
| 7.019.00021 | VMX - HM | 4-way mixer diverter valve - distance between axes 125 Male connections | DN 40 | 10 | 6,3 | 72,00 |



Motors for mixing/diverting valves

| Code | Model | Description | Volt | Price € |
|-------------|------------|--|-------|---------|
| 7.019.00074 | V70/220/00 | Motor V70 On/Off 3 points for 3000, VMX and VMH series valves - Strike 90° in 220 sec. (50/100/440 sec. upon request) - Complete with auxiliary micro | 230 V | 92,00 |
| 7.019.00072 | V70/220/00 | Motor V70 On/Off 3 points for 3000, VMX and VMH series valves - Strike 90° in 220 sec. (50/100/440 sec. upon request) - Complete with auxiliary micro | 24 V | 97,00 |
| 7.019.00111 | V70/100/M0 | V70 modulating motor for series 3000, VMX and VMH valves – Run 90° in 100 sec. (if requested 60/160 sec.) Modulation 0-10 Vdc (0-5 V; 1-5 V; 2-10 V; 0-20 mA; 4-20 mA on request); ref 0 % signal at A | 24 V | 134,00 |



| | | | | |
|-------------|-----------|---|--|------|
| 7.019.00076 | GIUNTO K3 | Joint: K3 for connection with 3000, VMX and VMH series only for V70 motor | | 9,50 |
| 7.019.00075 | GIUNTO K2 | Joint: K2 for connection with 2000 series only for V70 motor | | 9,50 |



| | | | | |
|-------------|-------------|---|-------|--------|
| 7.007.00678 | V200/220/00 | Motor V200 On/Off 3 points for 1000 and 2000 series valves - until DN 50 - Strike 90° in 220 sec. (125/540 sec. on request) | 230 V | 164,00 |
| 7.007.00732 | V200/220/00 | Motor V200 On/Off 3 points for 1000 and 2000 series valves - until DN 50 - Strike 90° in 220 sec. (125/540 sec. on request) - Complete with | 24 V | 166,00 |
| 7.007.00720 | V200/120/M0 | V200 modulating motor for series 1000 and 2000 valves – Run 90° in 120 sec. (155/235 sec. if requested) Modulation 0-10 Vdc (0-5 V; 1-5 V; 2-10 V; 0-20 mA; 4-20 mA if requested ref 0 % signals in A | 24 V | 234,00 |



| | | | | |
|-------------|--------------|--|-------|--------|
| 7.007.00666 | M1000 220/00 | Motor M1000 On/Off 3 points for 1000 series valves -from DN 65 to DN 125 | 230 V | 185,00 |
| 7.007.00733 | M1000 220/00 | Motor M1000 On/Off 3 points for 1000 series valves - from DN 65 to DN 125 - Strike 90° in 220 sec. (125/540 sec. if requested) - Complete | 24 V | 187,00 |
| 7.007.00707 | M1000 240/M0 | M1000 modulating motor for series 1000 valves - Run 90° in 240 sec. (if requested 80/155 sec.) with modulation (0-5 V; 1-5 V; 2-10 V; 0-20 mA; 4-20 mA) settable | 24 V | 249,00 |



Thermostatic radiator mixer and diverter valve range



48/49 RA



50 RAJ



51 RAW



52 VTD

RA SERIES

thermostatic mixer valves

The RA thermostatic mixing valves are used in hot water systems for sanitary use. They keep the temperature of the mixed water supplied to the user constant even when the conditions listed below vary:

- Temperature
- Supply pressure
- Incoming hot and cold water flow

The RA thermostatic mixing valves have a temperature range that is ideal for heating a centralised water system with heater. They also have an internal anti-limestone lining.

TECHNICAL DATA



Type of movement
Thermostatic



Max. ratio between input pressure (H/C or C/H)
2:1



Nominal pressure
PN10



Fl temperature limits
120 °C [max]



Fl adjustment range at output (mix)
30 ÷ 60 °C [precision ±2 °C]



CERTIFICATION



Thermostatic Valve - RA series

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-------------|--|------|----|-----|---------|
| 7.030.01012 | TWR-RA 15 E | Anti-burn peripheral thermostat mixers DN 15 M 30-60° with pipe union | 1/2" | 10 | 1,7 | 82,00 |
| 7.030.00900 | TWR-RA 20 E | Anti-burn peripheral thermostat mixers DN 20 M 30-60° with pipe union | 3/4" | 10 | 1,7 | 82,00 |
| 7.030.00722 | TWR-RA 25 E | Anti-burn peripheral thermostat mixers DN 25 M 30-60° without pipe union | 1" | 10 | 1,7 | 82,00 |
| 7.030.01615 | TWR-RA 15 E | Anti-burn peripheral thermostat mixers DN 15 M 30-60° without pipe union | 1/2" | 10 | 0,9 | 82,00 |
| 7.030.01616 | TWR-RA 20 E | Anti-burn peripheral thermostat mixers DN 20 M 30-60° without pipe union | 3/4" | 10 | 0,9 | 82,00 |



Valves - RA serie with no-return valve

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-------------|---|------|----|-----|---------|
| 7.030.01504 | TWR-RA 15 E | Anti-burn peripheral thermostat mixers DN 15 M with one-way valve - 30-60° with pipe union | 1/2" | 10 | 1,7 | 92,00 |
| 7.030.01480 | TWR-RA 20 E | Anti-burn peripheral thermostat mixers DN 20 M with one-way valve - 30-60° with pipe union | 3/4" | 10 | 1,7 | 92,00 |
| 7.030.01479 | TWR-RA 25 E | Anti-burn peripheral thermostat mixers DN 25 M with one-way valve - 30-60° without pipe union | 1" | 10 | 1,7 | 92,00 |
| 7.030.01617 | TWR-RA 15 E | Anti-burn peripheral thermostat mixers DN 15 M with one-way valve - 30-60° without pipe union | 1/2" | 10 | 0,9 | 92,00 |
| 7.030.01618 | TWR-RA 20 E | Anti-burn peripheral thermostat mixers DN 20 M with one-way valve - 30-60° without pipe union | 3/4" | 10 | 0,9 | 92,00 |



Accessories for no-return valve

| Code | Description | Size | Price € |
|-------------|--|------|---------|
| 7.030.01510 | Accessory one-way valve, pack of 50 pcs. | 1" | 20,00 |
| 7.030.01620 | Accessory one-way valve, pack of 50 pcs. | 1/2" | 20,00 |
| 7.030.01621 | Accessory one-way valve, pack of 50 pcs. | 3/4" | 20,00 |



RAJ SERIES

thermostatic mixer valves

The RAJ thermostatic mixing valves are applied in hot water sanitary systems production and distribution to users.

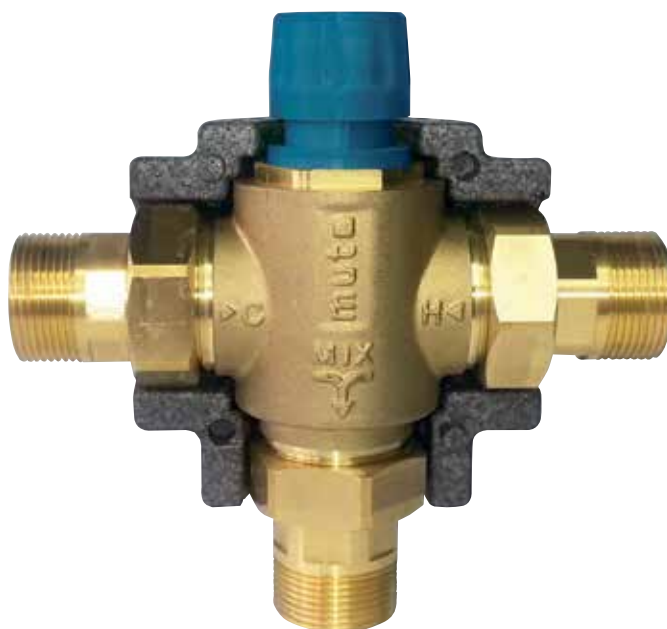
They guarantee a constant temperature (according to temperature set point value) of the mixed water to the users, even when the following conditions vary:

- temperature of water flows before mixing (incoming hot water and cold water flows)
- Supply pressure
- Flow rates of incoming hot and cold water

The thermostatic mixing valves RAJ have a temperature range (adjustable), suitable for central water heating systems. The valve is provided as standard with a thermal insulating shell to reduce heat loss and avoid burns. The adjustable thermostatic mixing valves Raj are available in 3 sizes (G 1 1/4", G 1 1/2", G 2") . Max hot water temperature inlet: 110 °C. Max working pressure (static): 14 bar.



CERTIFICATION



TECHNICAL DATA



Type of movement
Thermostatic



Max. ratio between input pressures (H/C or C/H)
2 :1



Max. differential pressure
5 bar



Fl temperature limits
5 ÷ 110 °C [max]



Fl adjustment range at output (mix)
RAJ (R 1 1/4"): 30 ÷ 65 °C - RAJ (R 1 1/2"; R 2"): 35 ÷ 65 °C
[precision: ±2 °C]

Thermostatic Valve - RAJ series

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|---------|---|---------|----|------|---------|
| 7.030.01662 | TWR-RAJ | Thermostatic radiator valve with nuts and connections of R 1" 1/4 | R1" 1/4 | 10 | 9,1 | 670,00 |
| 7.030.01661 | TWR-RAJ | Thermostatic radiator valve with nuts and connections of R 1" 1/2 | R1" 1/2 | 10 | 14,5 | 1050,00 |
| 7.030.01660 | TWR-RAJ | Thermostatic radiator valve with nuts and connections of R 2" | R2" | 10 | 19 | 1200,00 |



Accessories for RAJ series

| Code | Model | Description | Price € |
|-------------|---------------|--|---------|
| 7.030.01744 | cartridge kit | Cartridge kit for RAJ thermostatic radiator valve, R 2" and R 1" 1/2 | 610,00 |
| 7.030.01745 | cartridge kit | Cartridge kit for RAJ thermostatic radiator valve, R 1" 1/4 | 310,00 |



RAW SERIES

thermostatic radiator mixer and diverter valves

The RAW thermostatic mixing valves are used in hot water systems for sanitary use. They keep the temperature of the mixed water supplied to the user constant even when the conditions listed below vary:

- Temperature
- Supply pressure
- Incoming hot and cold water flow

The RAW thermostatic mixing valves have a temperature range that is ideal for heating a centralised water system with heater.

TECHNICAL DATA



Type of movement
Thermostatic



Nominal pressure
10 bar



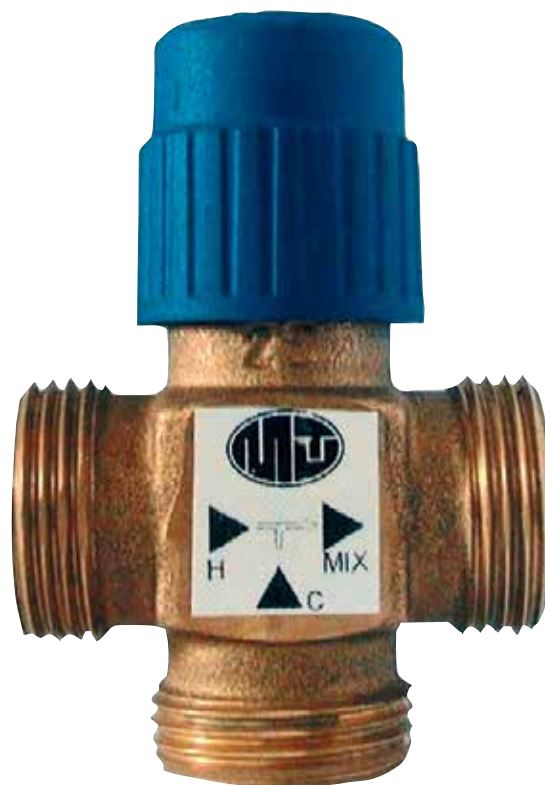
Max. ratio between input pressures (H/C or C/H)
2 :1



Fl temperature limits
5 ÷ 120 °C [max]



Fl adjustment range at output (mix)
30 ÷ 60 °C [precision ±2 °C]
20 ÷ 43 °C (for the model KVS4)



CERTIFICATION



Thermostatic Valve - RAW series

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-------------|---|--------|----|-----|---------|
| 7.030.01009 | TWR-RAW 15E | Adjustable thermostatic mixer valve DN 15 M | 1/2" | 10 | 1,6 | 75,00 |
| 7.030.01010 | TWR-RAW 20E | Adjustable thermostatic mixer valve DN 20 M | 3/4" | 10 | 1,6 | 75,00 |
| 7.030.00847 | TWR-RAW 25E | Adjustable thermostatic mixer valve DN 25 M | 1" | 10 | 1,6 | 75,00 |
| 7.030.01011 | TWR-RAW 32E | Adjustable thermostatic mixer valve DN 32 M | 1" 1/4 | 10 | 1,6 | 75,00 |



| | | | | | | |
|-------------|--------------|---|----|----|---|-------|
| 7.030.02034 | RAW-KVS4 25E | Adjustable thermostatic mixer valve DN 25 M 20-43 °C Centre distance 93 | 1" | 10 | 4 | 89,50 |
|-------------|--------------|---|----|----|---|-------|



VTD SERIES

thermostatic diverter valves

VTD Shunt Valve is installed between the boiler and Solar Heater. The use of this Thermostatic Shunt Valve provides a high savings allowing the use of solar panel with natural circulation even in winter. The domestic water produced by the solar panel in winter often does not reach the required temperature. In this case the Shunt Valve VTD sends "warm" water to the instant wall boiler which will use the heat already present in the water to consume less gas and supply water to the desired temperature.

It allows to adjust precisely the actual temperature.



TECHNICAL DATA



Type of movement
Thermostatic



Nominal pressure
14 bar



Fl temperature limits
5 ÷ 120 °C [max]



Max. room temperature



Pre-set temperature
from 40/50 °C and from 45/55 °C



Thermostatic Deviating Valve - VTD series

| Code | Description | KVS | Price € |
|-------------|-----------------------------|-----|---------|
| 7.030.01446 | Valve VTD 25E 45 °C - 55 °C | 1,5 | 75,00 |
| 7.030.01635 | Valve VTD 25E 40 °C - 50 °C | 1,5 | 75,00 |



Safety valve range



54/55 MSV

Diverter and pressure valves



56/57 VDE



58/59 VDP

Flow switches and pressure switches



60 SFS
differential pressure switches



61 SBP
flow signal pressure switches



62 SFP
flows switches

MSV SERIES

safety valves

The safety valves are used to control the pressure on heat generators, in heating systems, accumulations of hot water, in water systems ecc.

TECHNICAL DATA



Type of movement
Manual



Nominal pressure
10 bar



Fl temperature limits
5 ÷ 110 °C [max]



Pressure
from 1.5 to 8 bar

CERTIFICATION



Safety valves ^{*1} ^{*2}

| Code | Model | Description | Size | PN | Price € |
|-------------|---------|--|--------|----|---------|
| 7.030.01417 | MSV 140 | Safety valve - setting 3 bar - female-female gas connections | G 1/2" | 10 | 9,50 |
| 7.030.01535 | MSV 140 | Safety valve - setting 6 bar - female-female gas connections | G 1/2" | 10 | 9,50 |
| 7.030.01419 | MSV 140 | Safety valve - setting 3 bar - female-male gas connections | G 1/2" | 10 | 9,50 |
| 7.030.01536 | MSV 140 | Safety valve - setting 6 bar - female-male gas connections | G 1/2" | 10 | 9,50 |



| | | | | | |
|-------------|---------|--|--------|----|-------|
| 7.030.01413 | MSV 170 | Safety valve - setting 3 bar - female-female gas connections | G 1/2" | 10 | 12,60 |
| 7.030.01537 | MSV 170 | Safety valve - setting 6 bar - female-female gas connections | G 1/2" | 10 | 12,60 |
| 7.030.01416 | MSV 170 | Safety valve - setting 3 bar - female-male gas connections | G 1/2" | 10 | 12,60 |
| 7.030.01538 | MSV 170 | Safety valve - setting 6 bar - female-male gas connections | G 1/2" | 10 | 12,60 |



| | | | | | |
|-------------|---------|--|--------|----|-------|
| 7.030.01574 | MSV 141 | Safety valve with pressure gauge - setting 3 bar female-male gas connections | G 1/2" | 10 | 16,00 |
| 7.030.01575 | MSV 141 | Safety valve with pressure gauge - setting 6 bar female-male gas connections | G 1/2" | 10 | 16,00 |
| 7.030.01576 | MSV 141 | Safety valve with pressure gauge - setting 3 bar female-female gas connections | G 1/2" | 10 | 16,00 |
| 7.030.01577 | MSV 141 | Safety valve with pressure gauge - setting 6 bar female-female gas connections | G 1/2" | 10 | 16,00 |



| | | | | | |
|-------------|---------|--|--------|----|-------|
| 7.030.01600 | MSV 142 | Safety valve - setting 3 bar female-female gas connections - prepared for pressure gauge | G 1/2" | 10 | 13,00 |
| 7.030.01601 | MSV 142 | Safety valve - setting 6 bar female-female gas connections - prepared for pressure gauge | G 1/2" | 10 | 13,00 |
| 7.030.01602 | MSV 142 | Safety valve - setting 3 bar female-male gas connections - prepared for pressure gauge | G 1/2" | 10 | 13,00 |
| 7.030.01603 | MSV 142 | Safety valve - setting 6 bar female-male gas connections - prepared for pressure gauge | G 1/2" | 10 | 13,00 |



*1 If requested, available set at 1.5 / 2 / 2,5 / 3,5 / 4 / 5 / 7 / 8 bar

*2 Minimum order 10 pcs.

VDE SERIES

diverter valves

The VDE valve is designed for use in combined home boilers with instant and semi-rapid production of domestic hot water. It is designed to shunt the flow of water away from the primary boiler circuit to the secondary heat exchanger, excluding the heating circuit (priority to hot water). It can be used in boilers that employ series VDP series VDP/M valves without changing the layout of the boiler fittings and by merely inserting the control unit.

TECHNICAL DATA



Type of movement
motorized



Max. differential pressure
154 kPa



Nominal pressure
PN10



Fl temperature limits
5 ÷ 110 °C [max]



Insulation class
II Ref. European Directive EN60730



Protection rating
IP 40 Ref. European Directive IEC EN60529



Way commutation time
6 s



Way commutation time
6 s

CERTIFICATION



Pressure static diverting valves

| Code | Model | Description | PN | KVS | Price € |
|-------------|------------|--|----|-----|---------|
| 7.009.00073 | VDE/ML SOA | Electric diverter valve 24 V synchronous | 10 | 8,0 | 80,70 |



| | | | | | |
|-------------|--------|---|----|-----|-------|
| 7.009.00047 | VDE/MR | Electric diverter valve 230 V - SPDT CR | 10 | 8,0 | 91,50 |
| 7.009.00148 | VDE/MR | Electric diverter valve 24 V - SPDT CR | 10 | 8,0 | 91,50 |
| 7.009.00144 | VDE/MR | Electric diverter valve 230 V - SPST CR | 10 | 8,0 | 96,50 |
| 7.009.00223 | VDE/MR | Electric diverter valve 24 V - SPST CR | 10 | 8,0 | 96,50 |



| | | | | | |
|-------------|---------|--|-------|--|--|
| 7.030.00311 | VDE/MLS | Electric diverter valve 24 V - synchronous motor | 99,00 | | |
| 7.030.00183 | VDE/MLS | Electric diverter valve 24 V - stepper motor | 99,00 | | |



| | | | | | |
|-------------|---------|---------------------------------------|-------|--|--|
| 7.030.00408 | VDE/ARM | Diverter valve VDE/ARM - p.o.a. 230 V | 91,50 | | |
| 7.030.00435 | VDE/ARM | Diverter valve VDE/ARM - p.o.a. 24 V | 96,50 | | |
| 7.030.00436 | VDE/ARM | Diverter valve VDE/ARM - p.o.a. 110 V | 99,50 | | |



VDP SERIES

diverter pressure valves

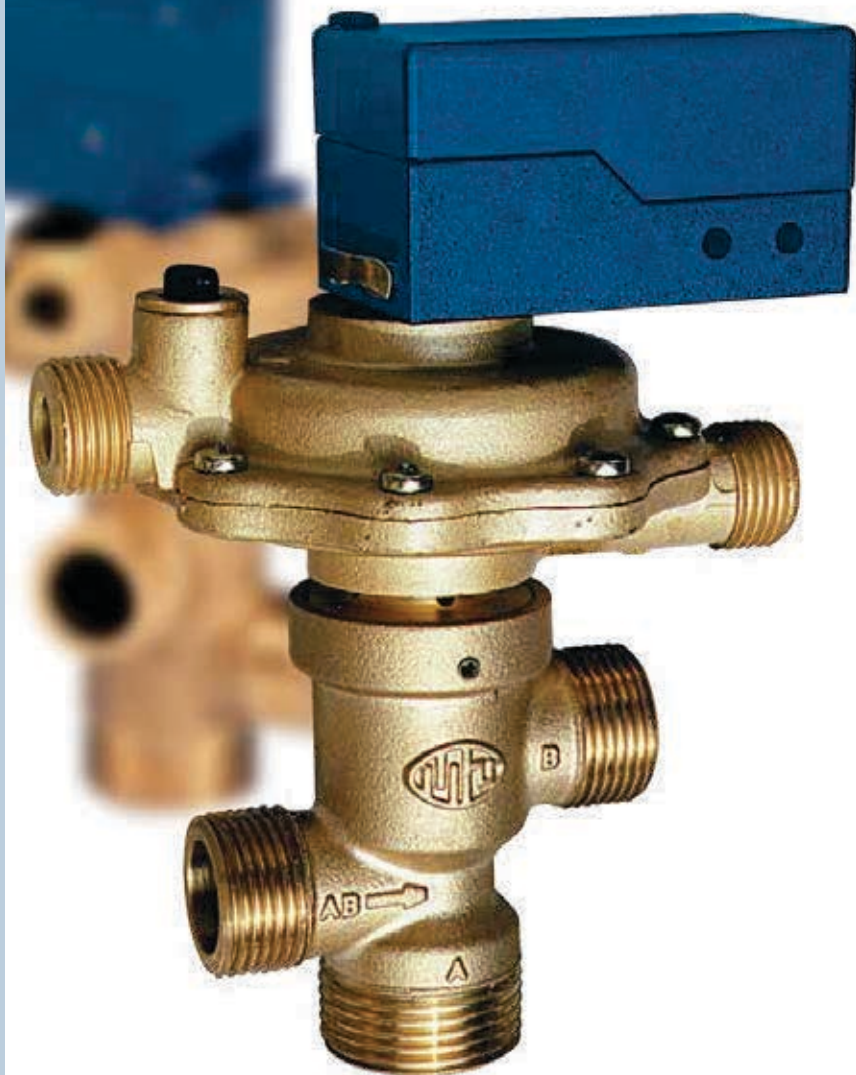
VDP valves are used in domestic boilers with heat exchangers for instantaneous domestic hot water production. When the user requests domestic hot water, the VDP valve shunts the flow of water from the primary circuit of the boiler towards the instantaneous heat exchanger (boiler) excluding the heating circuit; this shunted flow is modulated depending on the domestic hot water flow rate until it reaches the rate where the microswitch trips. The VDP valve is equipped with auxiliary microswitches and with an eventual flow rate regulator (reducer). There is a version that besides the above mentioned characteristics is able to modulate the domestic water flow rate in a wide entrance pressure range thanks to a by-pass (VDP/M series). All versions are also available with secondary heat exchanger. In this case they are called secondary groups.

TECHNICAL DATA



Nominal pressure
PN10

CERTIFICATION



Pressure static diverting valves

| Code | Model | Description | PN | Price € |
|-------------|-------|--|----|---------|
| 7.005.00063 | VDP 1 | Diverter pressure valve 1 micro - body at 180° | 10 | 86,50 |
| 7.005.00040 | VDP 2 | Diverter pressure valve 2 micro - body at 180 | 10 | 88,00 |
| 7.005.00075 | VDP 3 | Diverter pressure valve 3 micro - body at 180 | 10 | 89,00 |



| | | | | |
|-------------|-------|--|----|-------|
| 7.005.00354 | VDP 1 | Diverter pressure valve 1 micro - body at 90° Sx | 10 | 86,50 |
| 7.005.00080 | VDP 2 | Diverter pressure valve 2 micro - body at 90° Sx | 10 | 88,00 |
| 7.005.00448 | VDP 3 | Diverter pressure valve 3 micro - body at 90° Sx | 10 | 89,00 |



| | | | | |
|-------------|-------|--|----|-------|
| 7.005.00452 | VDP 1 | Diverter pressure valve 1 micro - body at 90° Dx | 10 | 86,50 |
| 7.005.00081 | VDP 2 | Diverter pressure valve 2 micro - body at 90° Dx | 10 | 88,00 |
| 7.005.00575 | VDP 3 | Diverter pressure valve 3 micro - body at 90° Dx | 10 | 89,00 |



SFS SERIES

Differential pressure switches

The SFS differential pressure switch closes or diverts an electric contact when the differential pressure between the two inlets reaches the upper set-point (intervention) and opens or releases the contact when it drops below the lower set-point (release). It can be used in plumbing systems when it is necessary to make sure the pressure difference between two points does not exceed or drop below a specific value. A pair of permanent magnets, placed in a mutual-repulsion position one inside the pressure switch body and one outside, replace the classic O-ring and shaft solution and greatly increase the reliability and working life of the pressure switch.



CERTIFICATION



TECHNICAL DATA

| | |
|--|---|
| | Max. differential pressure 500 kPa |
| | Nominal pressure PN10 |
| | Protection rating IP 40/54 Ref. European Directive IEC EN60529 |
| | Cable length 920 mm |
| | Fl temperature limits 2 ÷ 95°C [max] |

Differential pressure switches

| Code | Model | Description | Size | Price € |
|-------------|--------|--|------|---------|
| 7.004.00022 | SFS M1 | Differential pressure valve - intervention at 50 mbar - Male connections (intervention at 25/35/100 mbar if requested) (3/8G, 7/16UNF connections if requested) with 1 micro - IP 40 | 1/4" | 53,80 |
| 7.004.00049 | SFS M2 | Differential pressure valve - intervention at 50 mbar - Male connections (intervention at 25/35/105 mbar if requested) (3/8G, 7/16UNF connections if requested) with 2 micro - IP 40 | 1/4" | 56,90 |
| 7.004.00289 | SFS M1 | Differential pressure valve IP54 - intervention at 50 mbar (intervention at 25/35/105 mbar if requested) - Male connections G 1/4" (3/8G, 7/16 UNF if requested) | 1/4" | 78,70 |



SBP SERIES

Flow signal pressure switches

The SBP flow switch works as a differential pressure switch until it reaches a pressure value (ΔP_B) which causes the opening of a by-pass making it work as an overpressure valve. Under this value (ΔP_B) the SBP flow switch closes or switches an electrical contact when the pressure reaches its upper set-point micro (ΔP intervention) and releases it when it drops below the lower micro set-point (ΔP release). When the pressure difference goes higher than the pre-established value (ΔP_B) the by-pass opens and the component functions as an overpressure valve. A pair of permanent magnets, placed in their mutual repulsion position, one inside the flow switch body and one outside the body, replace the classic solution of O-ring seal and shaft. This new solution greatly increases the reliability and working life of the flow switch.



CERTIFICATION



TECHNICAL DATA



Nominal pressure
PN10



Fl temperature limits
5 ÷ 95°C [max]

Flow signal pressure switches

| Code | Model | Description | Size | Price € |
|-------------|-------|---|-----------|---------|
| 7.008.00056 | SBP 1 | Differential pressure valve with overpressure valve intervention at 100 mbar - Male connections - with 1 micro - IP 40 | 3/4"-1/2" | 65,50 |
| 7.008.00047 | SBP 2 | Differential pressure valve with overpressure valve intervention at 100 mbar - Male connections - with 2 micros - IP 40 | 3/4"-1/2" | 72,50 |



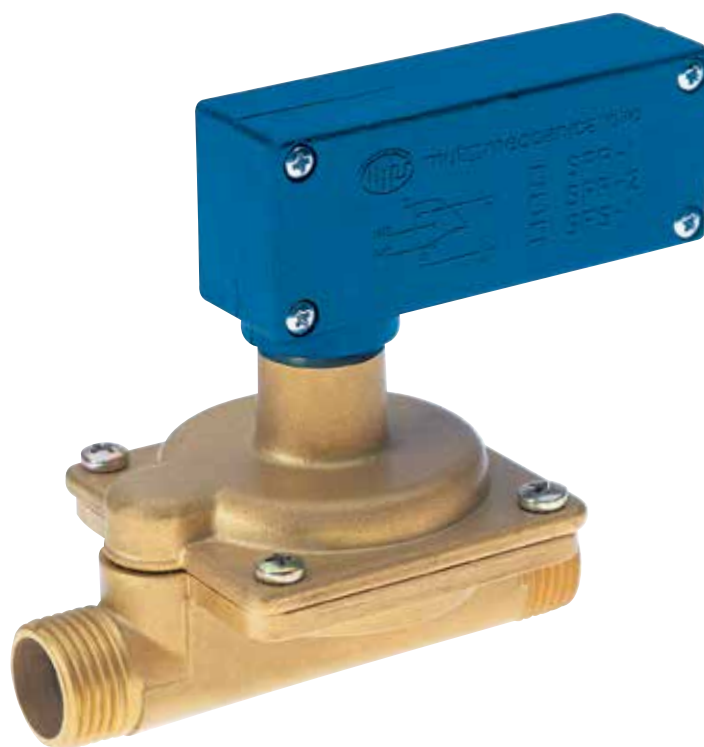
SFP SERIES

Flow switches

flowswitch closes or switches an electric contact when the flow of water passing through it reaches its upper set-point (intervention) and opens or releases the contact when it drops below the lower set-point (release). A pair of permanent magnets, placed in their mutual repulsion position, one inside the flow switch body and one outside the body, replace the classic solution with O-ring seal and shaft. This new solution greatly increases the reliability and working life of the flowswitch.



CERTIFICATION



TECHNICAL DATA



Nominal pressure
PN10

Flow switches

| Code | Model | Description | Size | Price € |
|-------------|---------------|--|-----------|---------|
| 7.003.00084 | SFP M1 | Flow switch - intervention at 1,5 l/min - Male connections (intervention at 2 and 2,5 l/min if requested) with 1 micro | 1/2"-1/2" | 62,50 |
| 7.003.00076 | SFP M2 | Flow switch - intervention at 1,5 l/min - Male connections (intervention at 2 and 2,5 l/min if requested) with 2 micros | 1/2"-1/2" | 65,50 |
| 7.003.00258 | SFP-RM M1S | Flow switch - intervention at 1,5 l/min - Male connections (intervention at 2 and 2,5 l/min if requested) with flow control valve with 1 micro | 1/2"-1/2" | 72,50 |
| 7.030.00876 | SFP-S M1 | Flow switch - intervention at 1,5 l/min - Male connections 3/4"- with 1 micro | 3/4"-3/4" | 78,50 |



fan-coil valves



64/66 FV3 - V3B

Booster Units



67/68 GRD - GRM - GRT

control units



69/70 MTR

Fan-coil

Fan-coil valves

The V3B and FV3 valves are part of a series that was designed for domestic heating and cooling use. They have important characteristics, among which: small overall dimensions, easy to install, very low leakage, equipercentage regulation curve, suitable for use with drinkable water and others. These valves are moved manually by an external flywheel and can be controlled at any time by a MUT electric servo control from the V3 series and/or motors marketed by companies that deal with regulation. All that needs to be done is completely unscrew the manual knob and tighten the electric servo control in its place. All this without having to empty the system.

TECHNICAL DATA



Max. differential pressure
202 kPa



Nominal pressure
PN16



Fl temperature limits
5 ÷ 110 °C [max]

CERTIFICATION



Valves for fancoils

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-------|---|------|----|-----|---------|
| 7.010.00001 | F2V | 2-way valve - connections 1/2"F - 3/4"M | | 16 | 0,8 | 14,00 |
| 7.010.00028 | F2V | 2-way valve - connections 1/2"F - 3/4"M | | 16 | 1,6 | 14,00 |



| | | | | | | |
|-------------|---------------|---|------|----|-----|-------|
| 7.016.00042 | FV3 15 E - NO | 4-way fan-coil valve - 230 V male connections | 1/2" | 16 | 1,6 | 31,20 |
| 7.016.00039 | FV3 20 E - NO | 4-way fan-coil valve - 230 V male connections - with auxiliary micro | 3/4" | 16 | 2,5 | 31,20 |



| | | | | | | |
|-------------|----------------|---|-------|----|-----|-------|
| 7.016.00106 | FV3 15 EB - NO | 3-way valve - connections for copper pipes complete with nuts - ferrules | 15 mm | 16 | 1,6 | 35,50 |
| 7.016.00107 | FV3 20 EB - NO | 3-way valve - connections for copper pipes complete with nuts - ferrules | 20 mm | 16 | 2,5 | 35,50 |

| | | | | | | |
|-------------|---------------|---|------|----|-----|-------|
| 7.011.00195 | V3B 15 E - NO | 3-way valve with by-pass - Male connections | 1/2" | 16 | 1,6 | 35,50 |
| 7.011.00196 | V3B 20 E - NO | 3-way valve with by-pass - Male connections | 3/4" | 16 | 2,5 | 35,50 |



| | | | | | | |
|-------------|----------------|---|-------|----|-----|-------|
| 7.011.00363 | V3B 15 EB - NO | 3-way valve - connections for copper pipes complete with nuts - ferrules | 15 mm | 16 | 1,6 | 38,60 |
| 7.011.00364 | V3B 20 EB - NO | 3-way valve - connections for copper pipes complete with nuts - ferrules | 20 mm | 16 | 2,5 | 38,60 |

Fancoil valves with spring return

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-----------|---|------|----|-----|---------|
| 7.001.00582 | SF 415 | 4-way fan-coil valve - 230 V male connections | 1/2" | 10 | 2,9 | 115,00 |
| 7.001.02120 | SF 415 M1 | 4-way fan-coil valve - 230 V male connections - with auxiliary micro | 1/2" | 10 | 2,9 | 116,50 |



Actuators for fancoil valves

| Code | Model | Description | Price € |
|-------------|--------------|--|---------|
| 7.011.00041 | V3 180/24 | Actuator 24 V - On/Off - 180 sec. - 3 points | 96,00 |
| 7.011.00107 | V3 180/230 | Actuator 230 V - On/Off - 180 sec. - 3 points | 110,00 |
| 7.011.00102 | V3 180/24/M0 | Modulating actuator - 24 V - 0-10 Vdc and 2-10 Vdc | 152,00 |



| | | | |
|-------------|------------|---|--------|
| 7.030.01292 | V3 180/230 | Actuator 230 V - on/off - 180 sec. - 3 points - ECO | 110,00 |
| 7.030.01447 | V3 180/24 | Actuator 24 V - on/off - 180 sec. - 3 points - ECO | 96,00 |

| | | | |
|-------------|-----|--|-------|
| 7.009.00165 | ARM | Electric actuator ARM model - 230 V - N.O. | 67,20 |
| 7.030.00432 | ARM | Electric actuator ARM model - 24 V - N.O. | 69,30 |
| 7.030.00433 | ARM | Electric actuator ARM model - 110 V - N.O. | 72,40 |



| | | | |
|-------------|-------|---------------------------------------|-------|
| 7.011.00361 | V3 EC | Wax actuator 230 V - 6.5 mm - M30x1.5 | 35,00 |
| 7.011.00362 | V3 EC | Wax actuator 24 V - 6.5 mm - M30x1.5 | 35,00 |



| | | | |
|-------------|-----------|--|-------|
| 7.011.00355 | V3 EC M1S | Wax actuator with auxiliary micro - 230 V - 6.5 mm - M30x1.5 | 38,00 |
| 7.011.00356 | V3 EC M1S | Wax actuator with auxiliary micro - 24 V - 6.5 mm - M30x1.5 | 38,00 |

| | | | |
|-------------|--|---|-------|
| 7.030.01613 | | Thermostatic head with full close cat. A 6-28 °C M 30x1,5 | 19,50 |
|-------------|--|---|-------|



Gruppi di Rilancio

MUT temperature regulating units, also called booster units, are suitable for temperature control and water distribution in multi-storey or multi-zone applications. They allow to distribute water or plant fluid at the temperature that is suitable for a correct system operation to each system or zone.

Booster groups are supplied with thermal insulation in high density PPE and are suitable for operation with low temperature heating systems when equipped with a mixing valve (booster group with mixing valve), or directly to medium/high temperature (direct booster unit). Booster groups are obviously also suitable for the distribution of fluid in plants with water coolers (chillers). In heating applications they are installed downstream of the boiler, of a hydraulic separator or a mounted manifolds ready for their connection. Alternatively they allow to use the distribution manifolds of the fluid with a hydraulic separator.

These booster groups have been developed to meet both latest European regulations in terms of energy saving, safety and sustainability, combining features and specifications that allow quick and easy installation and maintenance. The result is a product with high energy performance and at the same time very simple to install and maintain.

TECHNICAL DATA



Fluid used
Water, Water with glycol



Maximum percentage of glycol
30 %



Max. working pressure
6 bar

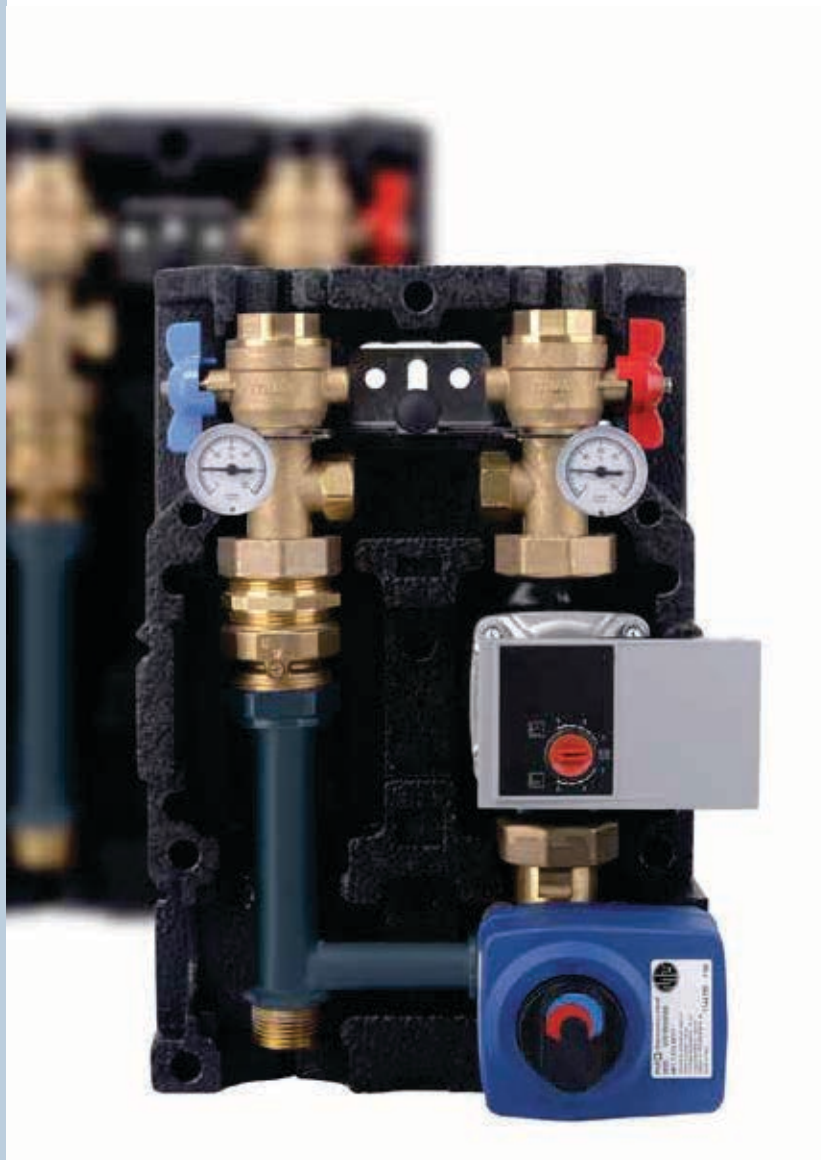


Max working temperature
110°C



Connections
System side 1" F (ISO228-1)
Boiler/Manifold side 1" M (ISO228/1)

CERTIFICATION



GRD



GRM



GRT

Booster Units

| Code | Model | Description | Price € |
|-------------|-------|---|---------|
| 7.030.01923 | GRD | Direct Booster Unit | 410,00 |
| 7.030.01924 | GRM | Booster Unit with motorised mixing valve | 650,00 |
| 7.030.01957 | GRT | Booster Unit with thermostatic mixing valve | 550,00 |



Booster Units Accessories

| Code | Description | Price € |
|-------------|--|---------|
| 7.030.02031 | Sludge remover/separator manifold 2+1 (side) main connections G 1 1/4 F – ring nut connections G 1 F centre distance 125 mm | 379,00 |
| 7.030.02035 | Sludge remover/separator manifold 3+1 (side) main connections G 1 1/4 F - ring nut connections G1 F centre distance 125 mm | 570,00 |
| 7.030.02032 | Manifold 2+1 (side) main connections G1 1/4 F ring nut connections G 1 F centre distance 125 mm | 340,00 |
| 7.030.02036 | Manifold 3+1 (side) main connections G 1 1/4 F ring nut connections G 1 F centre distance 125 mm | 420,00 |



| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-----------------|---|------|----|-----|---------|
| 7.030.02033 | RAW-KVS4 25E | Adjustable thermostatic mixer valve DN 25 M 20-43 °C Centre distance 72 (for Booster Unit thermostatic) | 1" | 10 | 4 | 89,50 |



Equiterm Regulators

The MTR series controllers are designed to adjust domestic heating systems using both radiant floor and radiators so as to save on energy. They contain a P.I.D. limit control which guarantees the temperature reaches fast the optimal level in each room. These controllers are easy to program and user-friendly and offer a wide range of adjustment and fine-tuning parameters. You may also program non-use periods to minimize consumption and lower operative temperature. They may come equipped with temperature sensors or sensors may be bought separately. Equiterm-based adjusting systems detect outdoor temperature and optimize the temperature of radiators through a mixing valve to secure a comfortable indoor temperature. All MTR controllers may also be interfaced with room thermostats.

They automatically detect any fault in outdoor temperature sensors and/or system temperature and also detect any failure of the mixing valve and may turn the boiler off to avoid damaging the radiant floor heating system.

TECHNICAL DATA



Voltage
230 Vac



Insulation class
Insulation 11 - IEC 664



Protection rating
IP 20 Ref. European Directive IEC EN60529

CERTIFICATION



Equiterm

Regolatore Equiterm MTR

| Code | Model | Description | Price € |
|-------------|--------|--|---------|
| 7.023.00002 | MTR 01 | Climatic control unit with outdoor probe and contact probe - for ON-OFF motors | 290,00 |
| 7.030.01363 | MTR 21 | Climatic control unit complete with probes | 340,00 |
| 7.030.01784 | MTR 22 | Climatic control unit, touch screen, without probes | 550,00 |
| 7.023.00005 | | Contact probe with cable tie | |
| 7.023.00006 | | Contact probe | |
| 7.023.00004 | | Outdoor probe | |
| 7.030.00298 | | Transformer from 230 to 24 V | |



Dirt Separator/Deaerator



72

DS



73

DF/DS

Combimut hydraulic separator



74/75

COMBI FL



74/75

COMBI F

DS SERIES

deaerator

Hydraulic systems where water fluid is properly de-aerated are more efficient, produce less noise and have a longer service life. MUT DS air separators are used to remove continuously air hydraulic circuits. They allow to eliminate all the air present in the circuits in an automatic way. MUT DS air separators are supplied complete with hot pre-formed shell insulation to ensure perfect thermal insulation when used with both hot and chilled water.

TECHNICAL DATA



working fluid
Water, water and glycol



Max glycol percent
50 %



Max. working pressure
10 bar



Max discharge pressure
10 bar



Working temperature range
0 ÷ 110°C



Fittings
Flanged DN 50/65/80/100
to be coupled with flat counterflange EN 1092-1



Thermal insulation for the body
Closed cell polyethylene foam th. 18 mm



CERTIFICATION



Deaerators DS Series

| Code | Model | Description | Size | Price € |
|-------------|--------|-------------|--------|---------|
| 7.030.01787 | DS 50 | Deaerator | DN 50 | 880,00 |
| 7.030.01838 | DS 65 | Deaerator | DN 65 | 900,00 |
| 7.030.01840 | DS 80 | Deaerator | DN 80 | 1350,00 |
| 7.030.01842 | DS 100 | Deaerator | DN 100 | 1450,00 |



| | | | | |
|-------------|-------------|-----------------------------------|-------|--------|
| 7.030.01985 | DS G 3/4" | Threaded deaerator G 3/4", brass | DN 20 | 106,00 |
| 7.030.01984 | DS G 1" | Threaded deaerator G 1" brass | DN 25 | 116,00 |
| 7.030.01983 | DS G 1" 1/4 | Threaded deaerator G 1" 1/4 brass | DN 32 | 120,00 |
| 7.030.01982 | DS G 1" 1/2 | Threaded deaerator G 1" 1/2 brass | DN 40 | 138,00 |
| 7.030.01981 | DS G 2" | Threaded deaerator G 2" brass | DN 50 | 151,00 |



DF/DS SERIES

dirt separator/deaerator

Hydraulic systems where water fluid is properly de-aerated and free of contamination are more efficient, produce less noise and have a longer service life. MUT DF/DS air and dirt separators are used to remove continuously air and impurities in the hydraulic circuits. They allow to eliminate all the air present in the circuits in an automatic way and also allow to separate impurities, collecting them in the lower part (collection sump). Inside the "dirt separator", in a position transverse to the direction of flow, there is a perforated grid (filtrating screen): the particles of impurities bumping the grid undergo a further reduction of speed, and then settle more easily. The periodic twisting-off of the purge valve allows to empty the collection sump. MUT DF/DS de-aerator and dirt separators are supplied complete with hot pre-formed shell insulation to ensure perfect thermal insulation when used with both hot and chilled water.

TECHNICAL DATA



working fluid
Water, water and glycol



Max glycol percent
50 %



Max. working pressure
10 bar



Max discharge pressure
10 bar



Working temperature range
0 ÷ 110 °C



Fittings
Flanged DN 50/65/80/100
to be coupled with flat counterflange EN 1092-1



Thermal insulation for the body
Closed cell polyethylene foam th. 18 mm



Magnet
Permanent 3 x 0.9 T mod. DN20/25 and 4 x 0.9 T mod. DN32/40/50.



CERTIFICATION



Dirt Separator/Deaerator DF/DS Series

| Code | Model | Description | Size | Price € |
|-------------|-----------|--------------------------|--------|---------|
| 7.030.01788 | DF/DS 50 | Dirt Separator/Deaerator | DN 50 | 1100,00 |
| 7.030.01839 | DF/DS 65 | Dirt Separator/Deaerator | DN 65 | 1120,00 |
| 7.030.01841 | DF/DS 80 | Dirt Separator/Deaerator | DN 80 | 1900,00 |
| 7.030.01843 | DF/DS 100 | Dirt Separator/Deaerator | DN 100 | 1950,00 |

| | | | | |
|-------------|-------------|---|-------|--------|
| 7.030.01993 | DF G 3/4" | Threaded magnetic sludge remover DF G 3/4", brass | DN 20 | 107,00 |
| 7.030.01992 | DF G 1" | Threaded magnetic sludge remover DF G 1", brass | DN 25 | 111,00 |
| 7.030.01991 | DF G 1" 1/4 | Threaded magnetic sludge remover DF G 1" 1/4, brass | DN 32 | 113,00 |
| 7.030.01990 | DF G 1" 1/2 | Threaded magnetic sludge remover DF G 1", brass | DN 40 | 117,00 |
| 7.030.01987 | DF G 2" | Threaded magnetic sludge remover DF G 2", brass | DN 50 | 132,00 |

| | | | | |
|-------------|----------------|--|-------|--------|
| 7.030.01999 | DF/DS G 3/4" | Threaded magnetic sludge remover/deaerator G 3/4", brass | DN 20 | 151,00 |
| 7.030.01998 | DF/DS G 1" | Threaded magnetic sludge remover/deaerator G 1", brass | DN 25 | 160,00 |
| 7.030.01997 | DF/DS G 1" 1/4 | Threaded magnetic sludge remover/deaerator 1" 1/4, brass | DN 32 | 172,00 |
| 7.030.01996 | DF/DS G 1" 1/2 | Threaded magnetic sludge remover/deaerator G 1", brass | DN 40 | 181,00 |
| 7.030.01988 | DF/DS G 2" | Threaded magnetic sludge remover/deaerator G 2", brass | DN 50 | 198,00 |



Combimut

hydraulic separator

The Mut multipurpose hydraulic separator, designed to satisfy the requirements of hydraulic heating and cooling systems, can operate in three different manners:

- Hydraulic separation

Makes the connected hydraulic circuits independent, separating the capacities and heads of the primary circuit (boiler) from the capacities and heads of the secondary circuit (heating elements).

- Deaeration

Blocks, and as a result continually eliminates, all the air in the circuit to a level of microbubbles

Circulation of the water, which is completely deaerated, means the systems can work in optimal conditions, without creating noise and mechanical damage.

- Sludge removal

Blocks and holds back the heavy impurities in the hydraulic circuit which, hitting the filtering mesh, fall to the lower part of the body which acts as a decantation chamber. Here there is a magnetic device which holds back the ferromagnetic impurities.

The Mut multipurpose hydraulic separator is supplied with a thermoformed insulating shell made of closed cell expanded PE-X, th. 12 mm which guarantees perfect heat insulation.

It is available in two versions: with threaded sleeve Gas UNI ISO 228/1 or flanged PN16.

TECHNICAL DATA



working fluid
Water, water with glycerine



Max glycol percent
30 %



Max. working pressure
10 bar



Max discharge pressure
10 bar



Working temperature range
0 ÷ 110°C



Fittings
Threaded G 1" - G 1 1/4" - G 1 1/2" - G 2"(EN ISO 228/1)
Threaded DN 25/32/40/50
coupled with counter flange EN 1092-1



Thermal insulation for the body
Closed cell polyethylene foam th. 12 mm

CERTIFICATIONS



Combimut flanged hydraulic separator *

| Code | Model | Description | Size | Price € |
|-------------|-------------|--------------------------------------|-------|---------|
| 7.030.01913 | COMBI FL 25 | Combimut flanged hydraulic separator | DN 25 | 504,00 |
| 7.030.01930 | COMBI FL 32 | Combimut flanged hydraulic separator | DN 32 | 554,00 |
| 7.030.01928 | COMBI FL 40 | Combimut flanged hydraulic separator | DN 40 | 715,00 |
| 7.030.01925 | COMBI FL 50 | Combimut flanged hydraulic separator | DN 50 | 795,00 |



Combimut threaded hydraulic separator

| Codice | Modello | Descrizione | Misura | Prezzo € |
|-------------|------------|---------------------------------------|--------|----------|
| 7.030.01912 | COMBI F 25 | Combimut threaded hydraulic separator | G 1" | 380,00 |
| 7.030.01929 | COMBI F 32 | Combimut threaded hydraulic separator | G 1" ¼ | 420,00 |
| 7.030.01926 | COMBI F 40 | Combimut threaded hydraulic separator | G 1" ½ | 590,00 |
| 7.030.01920 | COMBI F 50 | Combimut threaded hydraulic separator | G 2" | 710,00 |



* Refer to the section on page 32 for counter-flanges



manifolds



78/82 MANIFOLDS

flanges - shutoffs



83/84 FLANGE



85/86 SHUTOFFS

water exchangers



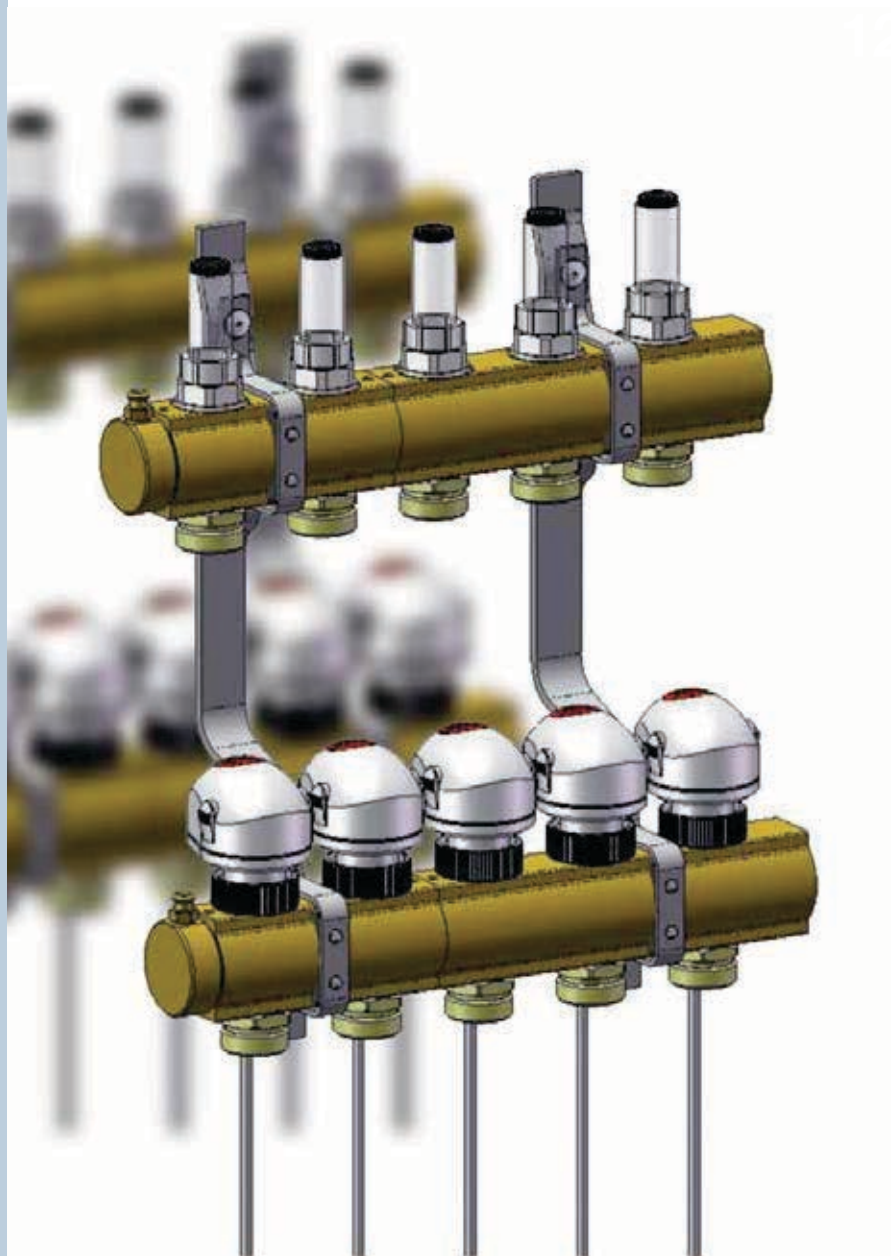
87/88 WATER EXCHANGERS
water-water

Manifolds

The manifolds are used to distribute and control the thermal carrier (water and water/glycol mixtures) in heating and conditioning systems. They are very small and guarantee low flow resistance, in addition to guaranteeing precise adjustment control of delivery to the individual circuits. The reduced flow resistance means they can be used as a distribution manifold for several areas, directly installed in the heating system. Insulation is used to prevent the formation of condensation when used in conditioning systems, as well as to limit thermal dispersion.

The manifolds are modular using bayonet connectors with O-ring seal. The delivery manifolds are available in two versions: with balancing valve and shut-off valve - With built-in rate regulator and flow display. The balancing valve balances the individual radiator circuits in order to obtain their effective individual capacity determined during designing.

The return collectors are equipped with on-off valves / manual adjustment that can be moved: Manually - With a thermoelectric actuator.



TECHNICAL DATA



Fluid used
Water, water and glycol



Maximum percentage of glycol
30 %



Max. working pressure
10 bar



Working temperature range
5÷100 °C



Main connections:
1" F Unions for pipe; G 3/4" eurocono
Distance between axes: 50 mm

CERTIFICATION



Brass pre-assembled manifold with reducing valve

Brass manifold, distance between way axes 50 mm

| Code | N°. Way | Description | Size | Price € |
|-------------|---------|---|------|---------|
| 7.030.00905 | 2 | Pre-assembled manifold - holders - output 1" - length 129 | G 1 | 29,00 |
| 7.030.00906 | 3 | Pre-assembled manifold - holders - output 1" - length 179 | G 1 | 40,00 |
| 7.030.00907 | 4 | Pre-assembled manifold - holders - output 1" - length 229 | G 1 | 50,00 |
| 7.030.00908 | 5 | Pre-assembled manifold - holders - output 1" - length 279 | G 1 | 62,00 |
| 7.030.00909 | 6 | Pre-assembled manifold - holders - output 1" - length 329 | G 1 | 73,00 |
| 7.030.00910 | 7 | Pre-assembled manifold - holders - output 1" - length 379 | G 1 | 84,00 |
| 7.030.00911 | 8 | Pre-assembled manifold - holders - output 1" - length 429 | G 1 | 94,00 |
| 7.030.00912 | 9 | Pre-assembled manifold - holders - output 1" - length 479 | G 1 | 105,00 |
| 7.030.00913 | 10 | Pre-assembled manifold - holders - output 1" - length 529 | G 1 | 125,00 |
| 7.030.00914 | 11 | Pre-assembled manifold - holders - output 1" - length 579 | G 1 | 135,00 |
| 7.030.00915 | 12 | Pre-assembled manifold - holders - output 1" - length 629 | G 1 | 140,00 |



Brass pre-assembled manifold with rate regulator

Brass manifold, distance between way axes 50 mm

| Code | N°. Way | Description | Size | Price € |
|-------------|---------|--|------|---------|
| 7.030.00916 | 2 | Pre-assembled manifold - flow rate measurer - output 1" - length 129 | G 1 | 45,00 |
| 7.030.00917 | 3 | Pre-assembled manifold - flow rate measurer - output 1" - length 179 | G 1 | 66,00 |
| 7.030.00918 | 4 | Pre-assembled manifold - flow rate measurer - output 1" - length 229 | G 1 | 88,00 |
| 7.030.00919 | 5 | Pre-assembled manifold - flow rate measurer - output 1" - length 279 | G 1 | 110,00 |
| 7.030.00920 | 6 | Pre-assembled manifold - flow rate measurer - output 1" - length 329 | G 1 | 131,00 |
| 7.030.00921 | 7 | Pre-assembled manifold - flow rate measurer - output 1" - length 379 | G 1 | 150,00 |
| 7.030.00922 | 8 | Pre-assembled manifold - flow rate measurer - output 1" - length 429 | G 1 | 175,00 |
| 7.030.00923 | 9 | Pre-assembled manifold - flow rate measurer - output 1" - length 479 | G 1 | 197,00 |
| 7.030.00924 | 10 | Pre-assembled manifold - flow rate measurer - output 1" - length 529 | G 1 | 219,00 |
| 7.030.00925 | 11 | Pre-assembled manifold - flow rate measurer - output 1" - length 579 | G 1 | 240,00 |
| 7.030.00926 | 12 | Pre-assembled manifold - flow rate measurer - output 1" - length 629 | G 1 | 260,00 |



Brass pre-assembled manifold with manual knob

Brass manifold, distance between way axes 50 mm

| Code | N°. Way | Description | Size | Price € |
|-------------|---------|---|------|---------|
| 7.030.00927 | 2 | Pre-assembled manifold - manual knob - output 1" - length 129 | G 1 | 32,00 |
| 7.030.00928 | 3 | Pre-assembled manifold - manual knob - output 1" - length 179 | G 1 | 48,00 |
| 7.030.00929 | 4 | Pre-assembled manifold - manual knob - output 1" - length 229 | G 1 | 62,00 |
| 7.030.00930 | 5 | Pre-assembled manifold - manual knob - output 1" - length 279 | G 1 | 75,00 |
| 7.030.00931 | 6 | Pre-assembled manifold - manual knob - output 1" - length 329 | G 1 | 88,00 |
| 7.030.00932 | 7 | Pre-assembled manifold - manual knob - output 1" - length 379 | G 1 | 101,00 |
| 7.030.00933 | 8 | Pre-assembled manifold - manual knob - output 1" - length 429 | G 1 | 114,00 |
| 7.030.00934 | 9 | Pre-assembled manifold - manual knob - output 1" - length 479 | G 1 | 127,00 |
| 7.030.00935 | 10 | Pre-assembled manifold - manual knob - output 1" - length 529 | G 1 | 139,00 |
| 7.030.00936 | 11 | Pre-assembled manifold - manual knob - output 1" - length 579 | G 1 | 153,00 |
| 7.030.00937 | 12 | Pre-assembled manifold - manual knob - output 1" - length 629 | G 1 | 166,00 |



Brass pre-assembled manifold

Brass manifold, distance between way axes 50 mm

| Code | N°. Way | Description | Size | Price € |
|-------------|---------|--|------|---------|
| 7.030.00938 | 2 | Pre-assembled manifold thermoelectric actuator V3EC - output 1" - length 129 | G 1 | 40,00 |
| 7.030.00939 | 3 | Pre-assembled manifold thermoelectric actuator V3EC - output 1" - length 179 | G 1 | 59,00 |
| 7.030.00940 | 4 | Pre-assembled manifold thermoelectric actuator V3EC - output 1" - length 229 | G 1 | 73,00 |
| 7.030.00941 | 5 | Pre-assembled manifold thermoelectric actuator V3EC - output 1" - length 279 | G 1 | 88,00 |
| 7.030.00942 | 6 | Pre-assembled manifold thermoelectric actuator V3EC - output 1" - length 329 | G 1 | 102,00 |
| 7.030.00943 | 7 | Pre-assembled manifold thermoelectric actuator V3EC - output 1" - length 379 | G 1 | 115,00 |
| 7.030.00944 | 8 | Pre-assembled manifold thermoelectric actuator V3EC - output 1" - length 429 | G 1 | 131,00 |
| 7.030.00945 | 9 | Pre-assembled manifold thermoelectric actuator V3EC - output 1" - length 479 | G 1 | 145,00 |
| 7.030.00946 | 10 | Pre-assembled manifold thermoelectric actuator V3EC - output 1" - length 529 | G 1 | 160,00 |
| 7.030.00947 | 11 | Pre-assembled manifold thermoelectric actuator V3EC - output 1" - length 579 | G 1 | 175,00 |
| 7.030.00948 | 12 | Pre-assembled manifold thermoelectric actuator V3EC - output 1" - length 629 | G 1 | 189,00 |



Brass pre-assembled manifold

Brass manifold, distance between way axes 50 mm

| Code | N°. Way | Description | Size | Price € |
|-------------|---------|---|------|---------|
| 7.030.00949 | 2 | Pre-assembled manifold flow rate meter and actuator V3EC output 1" - length 129 | G 1 | 94,00 |
| 7.030.00950 | 3 | Pre-assembled manifold flow rate meter and actuator V3EC output 1" - length 179 | G 1 | 128,00 |
| 7.030.00951 | 4 | Pre-assembled manifold flow rate meter and actuator V3EC output 1" - length 229 | G 1 | 169,00 |
| 7.030.00952 | 5 | Pre-assembled manifold flow rate meter and actuator V3EC output 1" - length 279 | G 1 | 203,00 |
| 7.030.00953 | 6 | Pre-assembled manifold flow rate meter and actuator V3EC output 1" - length 329 | G 1 | 221,00 |
| 7.030.00954 | 7 | Pre-assembled manifold flow rate meter and actuator V3EC output 1" - length 379 | G 1 | 253,00 |
| 7.030.00955 | 8 | Pre-assembled manifold flow rate meter and actuator V3EC output 1" - length 429 | G 1 | 285,00 |
| 7.030.00956 | 9 | Pre-assembled manifold flow rate meter and actuator V3EC output 1" - length 479 | G 1 | 317,00 |
| 7.030.00957 | 10 | Pre-assembled manifold flow rate meter and actuator V3EC output 1" - length 529 | G 1 | 348,00 |
| 7.030.00958 | 11 | Pre-assembled manifold flow rate meter and actuator V3EC output 1" - length 579 | G 1 | 380,00 |
| 7.030.00959 | 12 | Pre-assembled manifold flow rate meter and actuator V3EC output 1" - length 629 | G 1 | 412,00 |



Brass pre-assembled manifold

Brass manifold, distance between way axes 50 mm

| Code | N°. Way | Description | Size | Price € |
|-------------|---------|---|------|---------|
| 7.030.00960 | 2 | Pre-assembled manifold holders and actuator V3EC - output 1" - length 129 | G 1 | 74,00 |
| 7.030.00961 | 3 | Pre-assembled manifold holders and actuator V3EC - output 1" - length 179 | G 1 | 98,00 |
| 7.030.00962 | 4 | Pre-assembled manifold holders and actuator V3EC - output 1" - length 229 | G 1 | 129,00 |
| 7.030.00963 | 5 | Pre-assembled manifold holders and actuator V3EC - output 1" - length 279 | G 1 | 154,00 |
| 7.030.00964 | 6 | Pre-assembled manifold holders and actuator V3EC - output 1" - length 329 | G 1 | 179,00 |
| 7.030.00965 | 7 | Pre-assembled manifold holders and actuator V3EC - output 1" - length 379 | G 1 | 204,00 |
| 7.030.00966 | 8 | Pre-assembled manifold holders and actuator V3EC - output 1" - length 429 | G 1 | 229,00 |
| 7.030.00967 | 9 | Pre-assembled manifold holders and actuator V3EC - output 1" - length 479 | G 1 | 253,00 |
| 7.030.00968 | 10 | Pre-assembled manifold holders and actuator V3EC - output 1" - length 529 | G 1 | 278,00 |
| 7.030.00969 | 11 | Pre-assembled manifold holders and actuator V3EC - output 1" - length 579 | G 1 | 304,00 |
| 7.030.00970 | 12 | Pre-assembled manifold holders and actuator V3EC - output 1" - length 629 | G 1 | 329,00 |



Brass pre-assembled manifold

Brass manifold, distance between way axes 50 mm

| Code | N°. Way | Description | Size | Price € |
|-------------|---------|---|------|---------|
| 7.030.00971 | 2 | Pre-assembled manifold flow rate meter and manual holder - output 1" - length 129 | G 1 | 85,00 |
| 7.030.00972 | 3 | Pre-assembled manifold flow rate meter and manual holder - output 1" - length 179 | G 1 | 115,00 |
| 7.030.00973 | 4 | Pre-assembled manifold flow rate meter and manual holder - output 1" - length 229 | G 1 | 151,00 |
| 7.030.00974 | 5 | Pre-assembled manifold flow rate meter and manual holder - output 1" - length 279 | G 1 | 182,00 |
| 7.030.00975 | 6 | Pre-assembled manifold flow rate meter and manual holder - output 1" - length 329 | G 1 | 212,00 |
| 7.030.00976 | 7 | Pre-assembled manifold flow rate meter and manual holder - output 1" - length 379 | G 1 | 243,00 |
| 7.030.00977 | 8 | Pre-assembled manifold flow rate meter and manual holder - output 1" - length 429 | G 1 | 274,00 |
| 7.030.00978 | 9 | Pre-assembled manifold flow rate meter and manual holder - output 1" - length 479 | G 1 | 304,00 |
| 7.030.00979 | 10 | Pre-assembled manifold flow rate meter and manual holder - output 1" - length 529 | G 1 | 334,00 |
| 7.030.00980 | 11 | Pre-assembled manifold flow rate meter and manual holder - output 1" - length 579 | G 1 | 365,00 |
| 7.030.00981 | 12 | Pre-assembled manifold flow rate meter and manual holder - output 1" - length 629 | G 1 | 395,00 |



Brass pre-assembled manifold

Brass manifold, distance between way axes 50 mm

| Code | N°. Way | Description | Size | Price € |
|-------------|---------|---|------|---------|
| 7.030.00982 | 2 | Pre-assembled manifold holders and manual holder - output 1" - length 129 | G 1 | 70,00 |
| 7.030.00983 | 3 | Pre-assembled manifold holders and manual holder - output 1" - length 179 | G 1 | 90,00 |
| 7.030.00984 | 4 | Pre-assembled manifold holders and manual holder - output 1" - length 229 | G 1 | 124,00 |
| 7.030.00985 | 5 | Pre-assembled manifold holders and manual holder - output 1" - length 279 | G 1 | 147,00 |
| 7.030.00986 | 6 | Pre-assembled manifold holders and manual holder - output 1" - length 329 | G 1 | 170,00 |
| 7.030.00987 | 7 | Pre-assembled manifold holders and manual holder - output 1" - length 379 | G 1 | 194,00 |
| 7.030.00988 | 8 | Pre-assembled manifold holders and manual holder - output 1" - length 429 | G 1 | 218,00 |
| 7.030.00989 | 9 | Pre-assembled manifold holders and manual holder - output 1" - length 479 | G 1 | 241,00 |
| 7.030.00990 | 10 | Pre-assembled manifold holders and manual holder - output 1" - length 529 | G 1 | 264,00 |
| 7.030.00991 | 11 | Pre-assembled manifold holders and manual holder - output 1" - length 579 | G 1 | 288,00 |
| 7.030.00992 | 12 | Pre-assembled manifold holders and manual holder - output 1" - length 629 | G 1 | 312,00 |



Flanges

TECHNICAL DATA



Nominal pressure
10 Kg/cm²



Working temperature
seals 2 ÷ 80 °C

CERTIFICATION



Brass flanges

| Code | Description | Size | Price € |
|-------------|---|------|---------|
| 7.001.01089 | Brass flanges to be welded with gaskets and screws distance between axes 36 mm - with hole diam. 18 mm | | 5,80 |
| 7.001.01090 | Brass flanges to be welded with gaskets and screws distance between axes 36 mm - with hole diam. 20 mm | | 5,80 |
| 7.001.01091 | Brass flanges to be welded with gaskets and screws distance between axes 36 mm - with hole diam. 22 mm | | 6,50 |
| 7.001.01087 | Brass straight flange complete with gaskets and screws Male gas thread - distance between axes 24 mm | 1/2" | 5,80 |
| 7.001.01088 | Brass straight flange complete with gaskets and screws Male gas thread - distance between axes 24 mm | 3/4" | 5,90 |
| 7.001.01085 | Brass straight flange complete with gaskets and screws Female gas thread - distance between axes 24 mm | 1/2" | 5,80 |



Aluminium flanges

| Code | Description | Size | Price € |
|-------------|--|------|---------|
| 7.001.01094 | Aluminium straight flange complete with gaskets and screws - Female Gas thread distance between axes 36 mm | 1/2" | 5,00 |
| 7.001.01095 | Aluminium straight flange complete with gaskets and screws - Female Gas thread distance between axes 36 mm | 3/4" | 5,50 |
| 7.001.01096 | Aluminium straight flange complete with gaskets and screws - Female Gas thread distance between axes 36 mm | 1" | 9,00 |
| 7.001.01081 | Aluminium elbow flange complete with gaskets and screws - Female Gas thread distance between axes 36 mm | 1/2" | 5,20 |
| 7.001.01082 | Aluminium straight flange complete with gaskets and screws - Female Gas thread distance between axes 36 mm | 3/4" | 5,50 |
| 7.001.01052 | Aluminium straight flange complete with gaskets and screws - Female Gas thread distance between axes 36 mm | 1" | 10,20 |
| 7.001.01058 | Blind flange for Basic SB complete with gaskets and screws | | 4,25 |
| 7.001.01092 | Aluminium straight flange complete with gaskets and screws - Male Gas thread distance between axes 36 mm | 3/4" | 5,50 |
| 7.001.01093 | Aluminium straight flange complete with gaskets and screws - Male Gas thread distance between axes 36 mm | 1" | 9,00 |
| 7.001.01084 | Aluminium elbow flange complete with gaskets and screws - Female Gas thread distance between axes 24 mm | 1/2" | 5,25 |
| 7.001.01099 | Aluminium elbow flange complete with gaskets and screws - Male Gas thread distance between axes 24 mm | 3/4" | 5,50 |
| 7.030.01610 | Aluminium straight flange complete with gaskets and screws - Female Gas thread distance between axes 24 mm (UNI-ISO 228/1 - G 1/2) | 1/2" | 5,25 |
| 7.030.01611 | Aluminium straight flange complete with gaskets and screws - Female Gas thread distance between axes 24 mm (UNI-ISO 7/1 - Rp 1/2) | 1/2" | 5,25 |



Shutoffs

These are powered by an electric motor and can take two operating positions depending on whether the motor is activated or not. The tube and the shut-off ball are made of rust-proof material. The motor casing mounts an auxiliary switch that is activated during switching of the damper. The damper has an external lever for manually positioning its shut-off ball and which also indicates its position. These dampers are used to control fumes in gas and fuel oil boiler smoke-stacks. They can be installed in both vertical and horizontal positions. Available in five versions: Ø 130 mm, 150 mm, 175 mm, 200 mm, 225 mm.

TECHNICAL DATA



Nominal power supply voltage
230 Vac (24, 110 Vac; 50 Hz available)



Absorbed power
5 ÷ 6 W



Auxiliary contact power
3 A, 250 Vac



Protection rating
IP 22 IEC 529 directive
Ref. European Directive IEC EN 60529



FI temperature limits
+250 °C



Nominal opening time
25 sec.



Nominal closing time
6 ÷ 8 sec.



Total cable length
1000 mm



CERTIFICATION



Smoke dampers with spring return

| Code | Model | Description | Size | Price € |
|-------------|--------|---|------|---------|
| 7.001.02248 | SD 100 | Shutoff for smoke - pipe diam. 100 - stainless steel shutoff body power supply voltage 220/240 Vac. - 50 Hz | 100 | 183,00 |
| 7.001.00878 | SD 130 | Shutoff for smoke - pipe diam. 130 - stainless steel shutoff body power supply voltage 220/240 Vac. - 50 Hz | 130 | 189,00 |
| 7.001.00879 | SD 150 | Shutoff for smoke - pipe diam. 150 - stainless steel shutoff body power supply voltage 220/240 Vac. - 50 Hz | 150 | 217,00 |
| 7.001.02279 | SD 175 | Shutoff for smoke - pipe diam. 175 - stainless steel shutoff body power supply voltage 220/240 Vac. - 50 Hz | 175 | 239,00 |
| 7.001.02280 | SD 200 | Shutoff for smoke - pipe diam. 200 - stainless steel shutoff body power supply voltage 220/240 Vac. - 50 Hz | 200 | 256,00 |
| 7.001.02281 | SD 225 | Shutoff for smoke - pipe diam. 225 - stainless steel shutoff body power supply voltage 220/240 Vac. - 50 Hz | 225 | 269,00 |

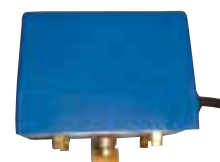
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|-------------|-----------|---|-----|--------|
| 7.001.02249 | SD 100 M1 | Shutoff for smoke - pipe diam. 100 - stainless steel shutoff body power supply voltage 220/240 Vac. - 50 Hz - complete with auxiliary micro | 100 | 187,00 |
| 7.001.00930 | SD 130 M1 | Shutoff for smoke - pipe diam. 130 - stainless steel shutoff body power supply voltage 220/240 Vac. - 50 Hz - complete with auxiliary micro | 130 | 192,00 |
| 7.001.00931 | SD 150 M1 | Shutoff for smoke - pipe diam. 150 - stainless steel shutoff body power supply voltage 220/240 Vac. - 50 Hz - complete with auxiliary micro | 150 | 219,00 |
| 7.001.03026 | SD 175 M1 | Shutoff for smoke - pipe diam. 175 - stainless steel shutoff body power supply voltage 220/240 Vac. - 50 Hz - complete with auxiliary micro | 175 | 242,00 |
| 7.001.00939 | SD 200 M1 | Shutoff for smoke - pipe diam. 200 - stainless steel shutoff body power supply voltage 220/240 Vac. - 50 Hz - complete with auxiliary micro | 200 | 259,00 |
| 7.001.02555 | SD 225 M1 | Shutoff for smoke - pipe diam. 225 - stainless steel shutoff body power supply voltage 220/240 Vac. - 50 Hz - complete with auxiliary micro | 225 | 274,00 |



Damper accessories

| Code | Model | Description | Price € |
|-------------|-----------|---|---------|
| 7.001.00790 | MS 230 | Mount for shutoff - Voltage 230/240 V - 50 Hz - Absorbed power 5-6 W | 83,00 |
| 7.001.03028 | MS 230 M1 | Mount for shutoff - Voltage 230/240 V - 50 Hz - Absorbed power 5-6 W with auxiliary micro | 86,00 |

| | | | |
|-------------|----------|--|-------|
| 7.001.00864 | MS 24 | Mount for shutoff - Voltage 24 V - 50 Hz - Absorbed power 5-6 W | 83,00 |
| 7.001.03027 | MS 24 M1 | Mount for shutoff - Voltage 24 V - 50 Hz - Absorbed power 5-6 W with auxiliary micro | 86,00 |



Exchangers

Water - water

These heat exchangers are designed for use in domestic boilers that combine heating with fast production of domestic hot water. This water runs inside a copper coil wrapped in three concentric spirals with different diameters. The primary circuit is connected to the heating circuit and consists of a series of cylindrical baffles that force water to make multiple vertical passes in order to efficiently move against the outer surface of the copper tube. Both internal circuits are welded to threaded connections for installing the heat exchanger in the plumbing circuit. There is also a version for direct connection with a diverter valve for interchanging fluid flows when there is a request for domestic hot water. A version also exists for direct connection with a diverter valve for flows exchange when there is a request for domestic hot water.

CERTIFICATION



Water exchangers

| Code | Model | Description | Price € |
|-------------|---------|--|---------|
| 7.002.02621 | KP20 AX | Immediate water-water exchanger - Power 20000 Kcal/h - male primary connections of 3/4" male hygiene connections of 1/2" | 159,90 |
| 7.002.01058 | KP20 BX | Immediate water-water exchanger - Power 20000 Kcal/h - male primary connections of 3/4" male hygiene connections of 1/2" - primary and secondary input connections with ring nut | 159,90 |
| 7.002.02622 | KP20 AY | Immediate water-water exchanger - Power 20000 Kcal/h - male primary connections of 1" male hygiene connections of 1/2" | 159,90 |
| 7.002.02623 | KP20 BY | Immediate water-water exchanger - Power 20000 Kcal/h - male primary connections of 1" male hygiene connections of 1/2" - primary and secondary input connections with ring nut | 159,90 |

| | | | |
|-------------|---------|--|--------|
| 7.002.02624 | KP24 AX | Immediate water-water exchanger - Power 24000 Kcal/h - male primary connections of 3/4" male hygiene connections of 1/2" | 159,90 |
| 7.002.02625 | KP24 BX | Immediate water-water exchanger - Power 24000 Kcal/h - male primary connections of 3/4" male hygiene connections of 1/2" - primary and secondary input connections with ring nut | 159,90 |
| 7.002.02626 | KP24 AY | Immediate water-water exchanger - Power 24000 Kcal/h - male primary connections of 1" male hygiene connections of 1/2" | 159,90 |
| 7.002.02627 | KP24 BY | Immediate water-water exchanger - Power 24000 Kcal/h - male primary connections of 1" male hygiene connections of 1/2" - primary and secondary input connections with ring nut | 159,90 |

| | | | |
|-------------|---------|--|--------|
| 7.002.00287 | K 21 AX | Immediate water-water exchanger - Power 21000 Kcal/h - male primary connections of 3/4" male hygiene connections of 1/2" | 161,60 |
| 7.002.00307 | K 21 BX | Immediate water-water exchanger - Power 21000 Kcal/h - male primary connections of 3/4" male hygiene connections of 1/2" - primary and secondary input connections with ring nut | 161,60 |
| 7.002.02628 | K 21 AY | Immediate water-water exchanger - Power 21000 Kcal/h - male primary connections of 1" male hygiene connections of 1/2" | 161,60 |
| 7.002.02629 | K 21 BY | Immediate water-water exchanger - Power 21000 Kcal/h - male primary connections of 1" male hygiene connections of 1/2" - primary and secondary input connections with ring nut | 161,60 |

| | | | |
|-------------|---------|--|--------|
| 7.002.00302 | K 26 AX | Immediate water-water exchanger - Power 26000 Kcal/h - male primary connections of 3/4" male hygiene connections of 1/2" | 165,00 |
| 7.002.00330 | K 26 BX | Immediate water-water exchanger - Power 26000 Kcal/h - male primary connections of 3/4" male hygiene connections of 1/2" - primary and secondary input connections with ring nut | 165,00 |
| 7.002.00560 | K 26 AY | Immediate water-water exchanger - Power 26000 Kcal/h - male primary connections of 1" male hygiene connections of 1/2" | 165,00 |
| 7.002.01368 | K 26 BY | Immediate water-water exchanger - Power 26000 Kcal/h - male primary connections of 1" male hygiene connections of 1/2" - primary and secondary input connections with ring nut | 165,00 |

| | | | |
|-------------|---------|--|--------|
| 7.002.00911 | K 28 AX | Immediate water-water exchanger - Power 28000 Kcal/h - male primary connections of 3/4" male hygiene connections of 1/2" | 170,00 |
| 7.002.00730 | K 28 BX | Immediate water-water exchanger - Power 28000 Kcal/h - male primary connections of 3/4" male hygiene connections of 1/2" - primary and secondary input connections with ring nut | 170,00 |
| 7.002.02631 | K 28 AY | Immediate water-water exchanger - Power 28000 Kcal/h - male primary connections of 1" male hygiene connections of 1/2" | 170,00 |
| 7.002.02632 | K 28 BY | Immediate water-water exchanger - Power 28000 Kcal/h - male primary connections of 1" male hygiene connections of 1/2" - primary and secondary input connections with ring nut | 170,00 |

| | | | |
|-------------|---------|--|--------|
| 7.002.00862 | K 30 AX | Immediate water-water exchanger - Power 30000 Kcal/h - male primary connections of 3/4" male hygiene connections of 1/2" | 224,00 |
| 7.002.02259 | K 30 AY | Immediate water-water exchanger - Power 30000 Kcal/h - male primary connections of 1" male hygiene connections of 1/2" | 224,00 |

| | | | |
|-------------|---------|--|--------|
| 7.002.00861 | K 45 AX | Immediate water-water exchanger - Power 45000 Kcal/h - male primary connections of 3/4" male hygiene connections of 1/2" | 233,00 |
| 7.002.02260 | K 45 AY | Immediate water-water exchanger - Power 45000 Kcal/h - male primary connections of 1" male hygiene connections of 1/2" | 233,00 |



MUT BIOMASS

Anti-condensation thermostatic mixer valve range



90/91 **TM 3000**
Anti-condensation



92/93 **TD 3000**
Anti-condensation



94 **TM 2000**
Anti-condensation

Anti-condensation thermostat group



95/96 **Blumut**



97/98 **Blumut Compact**

TM 3000 SERIES

anti-condensation thermostatic mixer valves

TM 3000 mixer valves find application in those heating systems (systems with solid fuel boiler and storage tank) where it is essential to ensure the return of hot water (at a minimum temperature level) to the boiler, thus ensuring a sufficiently high thermal regime of operation to prevent vapour condensation in the smokestack. These vapours combined with the products of combustion may give rise to corrosive compounds that affect and limit the life of the boiler.

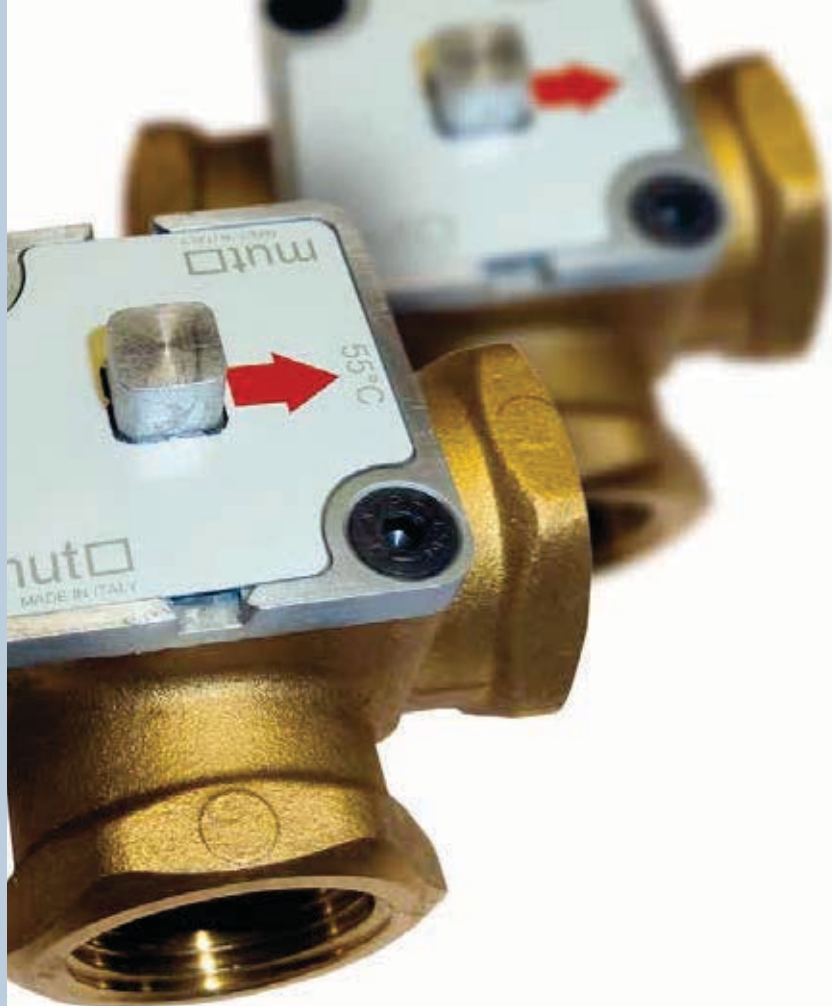
With the use of the valves TM 3000 are obtained the following advantages:

- Increasing the combustion efficiency of the heat generator.
 - Avoiding the risk of destructive thermal shock.
 - Significant lengthening of the working life of the boiler.
- The thermostatic mixing valve TM 3000 aren't equipped with electrical / electronic devices, with consequently great benefit of reliability and of simplicity of system installation and maintenance.

The "one single piece" thermostat-lid allows a quick and easy replacement of the thermostat. To ensure accurate precision, the thermostatic sensor is immersed directly into the fluid.

Operation temperature range: 5 - 110 °C.

Maximum operating pressure: 10 bar. TM 3000 mixer valves are available in 3 sizes (G ¾", G 1", G 1 ¼").



TECHNICAL DATA



Type of movement
Thermostatic



Nominal pressure
10 bar



FI temperature limits
5 ÷ 110 °C [max]

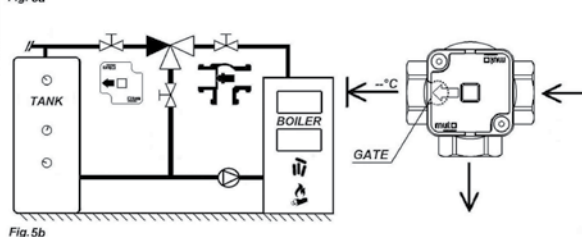
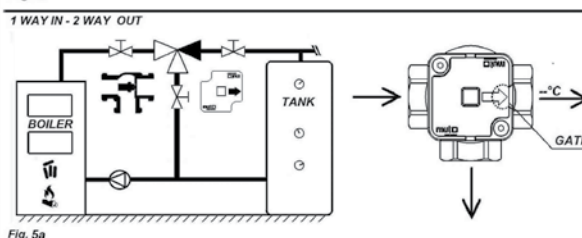
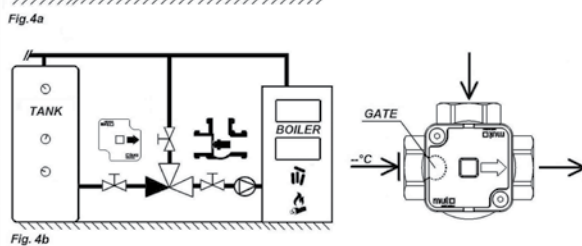
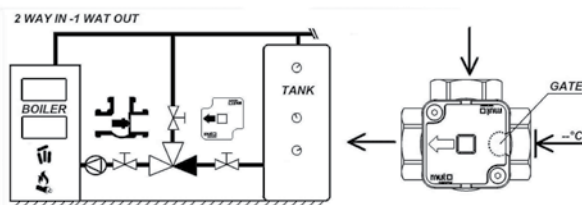


Settable opening temperature values
45 °C ÷ 50 °C ÷ 55 °C ÷ 63 °C ÷ 72 °C ÷ 78 °C

CERTIFICATION



OPERATION



Anti-condensation thermostatic mixer valves - TM 3000 series

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|---------|---|--------|----|-----|---------|
| 7.030.01756 | TM 3000 | Anti condensation mixer valve TM 3000-G 3/4-45 °C | 3/4" | 10 | 8 | 67,00 |
| 7.030.01790 | TM 3000 | Anti condensation mixer valve TM 3000-G 1-45 °C | 1" | 10 | 9 | 68,00 |
| 7.030.01818 | TM 3000 | Anti condensation mixer valve TM 3000-G 1 1/4-45 °C | 1 1/4" | 10 | 10 | 69,00 |

| | | | | | | |
|-------------|---------|---|--------|----|----|-------|
| 7.030.01819 | TM 3000 | Anti condensation mixer valve TM 3000-G 3/4-50 °C | 3/4" | 10 | 8 | 67,00 |
| 7.030.01820 | TM 3000 | Anti condensation mixer valve TM 3000-G 1-50 °C | 1" | 10 | 9 | 68,00 |
| 7.030.01821 | TM 3000 | Anti condensation mixer valve TM 3000-G 1 1/4-50 °C | 1 1/4" | 10 | 10 | 69,00 |

| | | | | | | |
|-------------|---------|---|--------|----|----|-------|
| 7.030.01604 | TM 3000 | Anti condensation mixer valve TM 3000-G 3/4-55 °C | 3/4" | 10 | 8 | 67,00 |
| 7.030.01605 | TM 3000 | Anti condensation mixer valve TM 3000-G 1-55 °C | 1" | 10 | 9 | 68,00 |
| 7.030.01582 | TM 3000 | Anti condensation mixer valve TM 3000-G 1 1/4-55 °C | 1 1/4" | 10 | 10 | 69,00 |

| | | | | | | |
|-------------|---------|---|--------|----|----|-------|
| 7.030.01822 | TM 3000 | Anti condensation mixer valve TM 3000-G 3/4-63 °C | 3/4" | 10 | 8 | 67,00 |
| 7.030.01764 | TM 3000 | Anti condensation mixer valve TM 3000-G 1-63 °C | 1" | 10 | 9 | 68,00 |
| 7.030.01677 | TM 3000 | Anti condensation mixer valve TM 3000-G 1 1/4-63 °C | 1 1/4" | 10 | 10 | 69,00 |

| | | | | | | |
|-------------|---------|---|--------|----|----|-------|
| 7.030.01823 | TM 3000 | Anti condensation mixer valve TM 3000-G 3/4-72 °C | 3/4" | 10 | 8 | 67,00 |
| 7.030.01581 | TM 3000 | Anti condensation mixer valve TM 3000-G 1-72 °C | 1" | 10 | 9 | 68,00 |
| 7.030.01824 | TM 3000 | Anti condensation mixer valve TM 3000-G 1 1/4-72 °C | 1 1/4" | 10 | 10 | 69,00 |

| | | | | | | |
|-------------|---------|---|--------|----|----|-------|
| 7.030.01825 | TM 3000 | Anti condensation mixer valve TM 3000-G 3/4-78 °C | 3/4" | 10 | 8 | 67,00 |
| 7.030.01826 | TM 3000 | Anti condensation mixer valve TM 3000-G 1-78 °C | 1" | 10 | 9 | 68,00 |
| 7.030.01827 | TM 3000 | Anti condensation mixer valve TM 3000-G 1 1/4-78 °C | 1 1/4" | 10 | 10 | 69,00 |



Accessories for TM 3000 series

| Code | Model | Description | Price € |
|-------------|---------------|-------------------------------|---------|
| 7.030.01832 | cartridge kit | Cartridge kit TM 3000 - 45 °C | 26,00 |
| 7.030.01777 | cartridge kit | Cartridge kit TM 3000 - 50 °C | 26,00 |
| 7.030.01778 | cartridge kit | Cartridge kit TM 3000 - 55 °C | 26,00 |
| 7.030.01833 | cartridge kit | Cartridge kit TM 3000 - 63 °C | 26,00 |
| 7.030.01834 | cartridge kit | Cartridge kit TM 3000 - 72 °C | 26,00 |
| 7.030.01835 | cartridge kit | Cartridge kit TM 3000 - 78 °C | 26,00 |

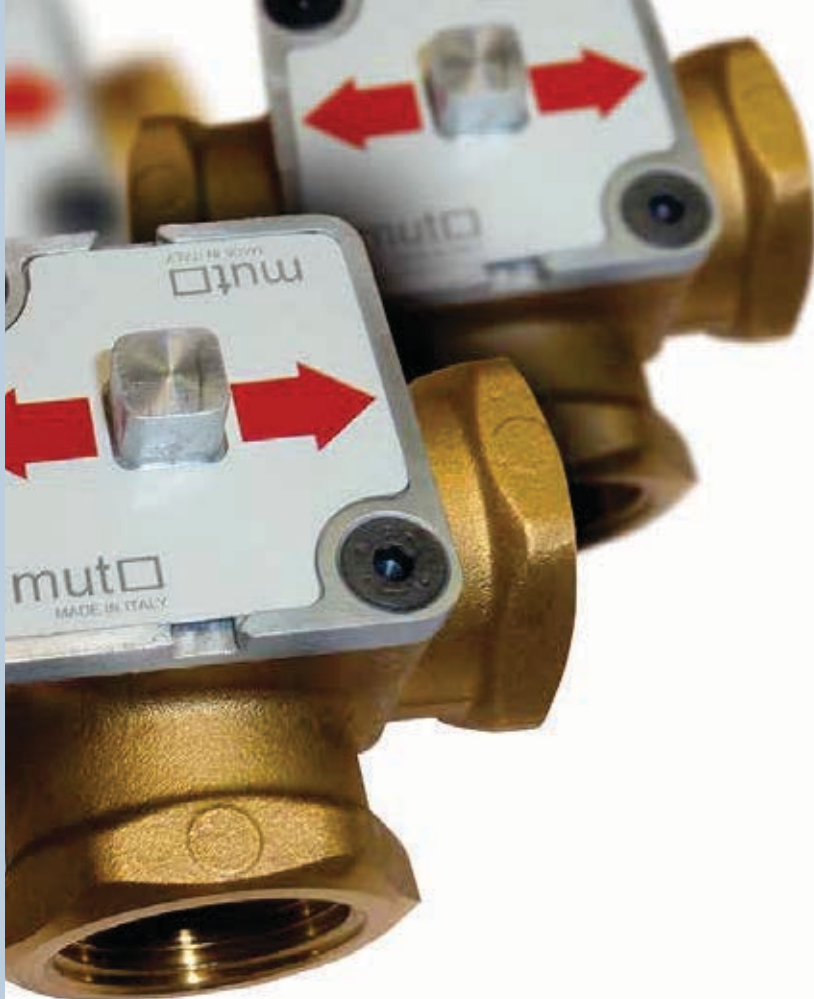


TD 3000 SERIES

anti-condensation thermostatic diverter valves

TD 3000 diverter valve is applied in heating systems (especially in solar thermal heating systems), in all those situations when the fluid flow has to be deviated according to its temperature, allowing a correct and precise temperature control according to circuit design specifications or requirements.

TD 3000 valves are available in 3 sizes (G 3/4", G 1", G 1 1/4"). The thermostatic diverter valve TD 3000 does not have electric/electronic devices, with great benefits on function reliability and easy system installation. The single-piece cartridge lid allows a quick and easy replacement of the thermostat. Operation temperature range: 5 - 110 °C. Max operation pressure: 10 bar.



TECHNICAL DATA



Type of movement
Thermostatic



Nominal pressure
10 bar



Fl temperature limits
5 ÷ 110 °C [max]

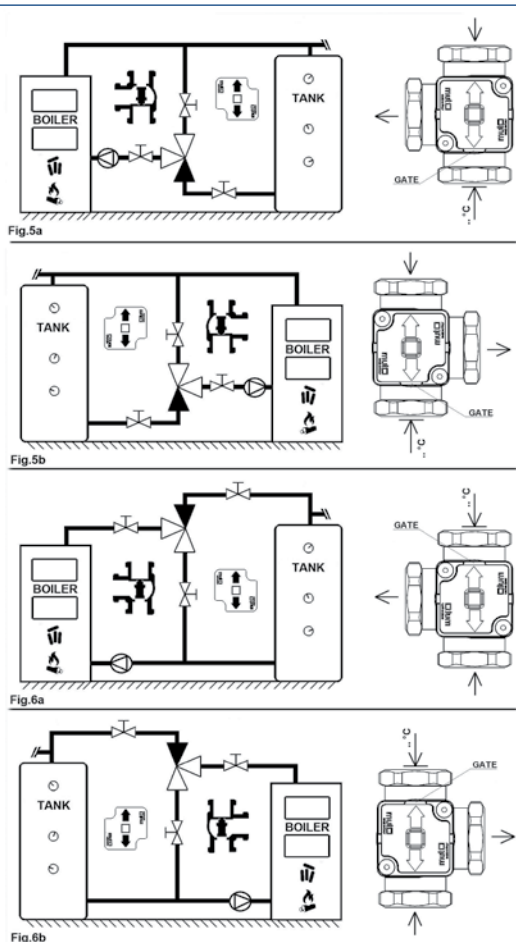


Settable opening temperature values
45 °C ÷ 50 °C ÷ 55 °C ÷ 63 °C ÷ 72 °C ÷ 78 °C

CERTIFICATION



OPERATION



Anti-condensation thermostatic diverter valves

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|---------|--|--------|----|-----|---------|
| 7.030.01752 | TD 3000 | Anti condensation diverter valve TD 3000-G 3/4-45 °C | 3/4" | 10 | 8 | 69,00 |
| 7.030.01774 | TD 3000 | Anti condensation diverter valve TD 3000-G 1-45 °C | 1" | 10 | 9 | 70,00 |
| 7.030.01811 | TD 3000 | Anti condensation diverter valve TD 3000-G 1 1/4-45 °C | 1 1/4" | 10 | 10 | 71,00 |

| | | | | | | |
|-------------|---------|--|--------|----|----|-------|
| 7.030.01763 | TD 3000 | Anti condensation diverter valve TD 3000-G 3/4-50 °C | 3/4" | 10 | 8 | 69,00 |
| 7.030.01773 | TD 3000 | Anti condensation diverter valve TD 3000-G 1-50 °C | 1" | 10 | 9 | 70,00 |
| 7.030.01812 | TD 3000 | Anti condensation diverter valve TD 3000-G 1 1/4-50 °C | 1 1/4" | 10 | 10 | 71,00 |

| | | | | | | |
|-------------|---------|--|--------|----|----|-------|
| 7.030.01606 | TD 3000 | Anti condensation diverter valve TD 3000-G 3/4-55 °C | 3/4" | 10 | 8 | 69,00 |
| 7.030.01607 | TD 3000 | Anti condensation diverter valve TD 3000-G 1-55 °C | 1" | 10 | 9 | 70,00 |
| 7.030.01608 | TD 3000 | Anti condensation diverter valve TD 3000-G 1 1/4-55 °C | 1 1/4" | 10 | 10 | 71,00 |

| | | | | | | |
|-------------|---------|--|--------|----|----|-------|
| 7.030.01580 | TD 3000 | Anti condensation diverter valve TD 3000-G 3/4-63 °C | 3/4" | 10 | 8 | 69,00 |
| 7.030.01753 | TD 3000 | Anti condensation diverter valve TD 3000-G 1-63 °C | 1" | 10 | 9 | 70,00 |
| 7.030.01741 | TD 3000 | Anti condensation diverter valve TD 3000-G 1 1/4-63 °C | 1 1/4" | 10 | 10 | 71,00 |

| | | | | | | |
|-------------|---------|--|--------|----|----|-------|
| 7.030.01813 | TD 3000 | Anti condensation diverter valve TD 3000-G 3/4-72 °C | 3/4" | 10 | 8 | 69,00 |
| 7.030.01814 | TD 3000 | Anti condensation diverter valve TD 3000-G 1-72 °C | 1" | 10 | 9 | 70,00 |
| 7.030.01815 | TD 3000 | Anti condensation diverter valve TD 3000-G 1 1/4-72 °C | 1 1/4" | 10 | 10 | 71,00 |

| | | | | | | |
|-------------|---------|--|--------|----|----|-------|
| 7.030.01816 | TD 3000 | Anti condensation diverter valve TD 3000-G 3/4-78 °C | 3/4" | 10 | 8 | 69,00 |
| 7.030.01817 | TD 3000 | Anti condensation diverter valve TD 3000-G 1-78 °C | 1" | 10 | 9 | 70,00 |
| 7.030.01729 | TD 3000 | Anti condensation diverter valve TD 3000-G 1 1/4-78 °C | 1 1/4" | 10 | 10 | 71,00 |



Accessories for TD 3000 series

| Code | Model | Description | Price € |
|-------------|---------------|-------------------------------|---------|
| 7.030.01828 | cartridge kit | Cartridge kit TD 3000 - 45 °C | 26,00 |
| 7.030.01775 | cartridge kit | Cartridge kit TD 3000 - 50 °C | 26,00 |
| 7.030.01776 | cartridge kit | Cartridge kit TD 3000 - 55 °C | 26,00 |
| 7.030.01829 | cartridge kit | Cartridge kit TD 3000 - 63 °C | 26,00 |
| 7.030.01830 | cartridge kit | Cartridge kit TD 3000 - 72 °C | 26,00 |
| 7.030.01831 | cartridge kit | Cartridge kit TD 3000 - 78 °C | 26,00 |



TM 2000 SERIES

anti-condensation thermostatic mixer valves

TM 2000 mixer valves find application in those heating systems (systems with solid fuel boiler and storage tank) where it is essential to ensure the return of hot water (at a minimum temperature level) to the boiler, thus ensuring a sufficiently high thermal regime of operation to prevent vapour condensation in the smokestack. These vapours combined with the products of combustion may give rise to corrosive compounds that affect and limit the life of the boiler. With the use of the valves TM 2000 are obtained the following advantages:

- Increasing the combustion efficiency of the heat generator.
 - Avoiding the risk of destructive thermal shock.
 - Significant lengthening of the working life of the boiler.
- The thermostatic mixing valve TM 2000 aren't equipped with electrical / electronic devices, with consequently great benefit of reliability and simplicity of system installation and maintenance.

The "one single piece" thermostat-lid allows a quick and easy replacement of the thermostat. To ensure accurate precision, the thermostatic sensor is immersed directly into the fluid.

Operation temperature range: 5 -110 ° C.

Maximum operating pressure:10 bar. TM 2000 mixer valves are available in 4 sizes (G ¾, "G 1", G 1 ¼, G 1 ½").



TECHNICAL DATA



Type of movement
Thermostatic



Nominal pressure
10 bar



Fl temperature limits
5 ÷ 110 °C [max]



Settable opening temperature values
45 °C ÷ 50 °C ÷ 55 °C ÷ 63 °C ÷ 72 °C ÷ 78 °C

CERTIFICATION



Anti-condensation thermostatic mixer valves - TM 2000 series

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|---------|--|--------|----|-----|---------|
| 7.030.01672 | TM 2000 | Anti condensation mixer valve TM 2000-G 3/4, 55 °C | 3/4" | 10 | 14 | 81,00 |
| 7.030.01706 | TM 2000 | Anti condensation mixer valve TM 2000-G 1 1/4, 55 °C | 1" | 10 | 14 | 83,00 |
| 7.030.01707 | TM 2000 | Anti condensation mixer valve TM 2000-G 1 1/4, 55 °C | 1 1/4" | 10 | 15 | 84,00 |
| 7.030.01711 | TM 2000 | Anti condensation mixer valve TM 2000-G 1 1/4, 55 °C | 1 1/2" | 10 | 16 | 91,00 |



Accessories for TM 2000 series

| Code | Model | Description | Price € |
|-------------|---------------|-----------------------------|---------|
| 7.030.01904 | cartridge kit | Cartridge kit TM 2000 45 °C | 37,00 |
| 7.030.01905 | cartridge kit | Cartridge kit TM 2000 50 °C | 37,00 |
| 7.030.01906 | cartridge kit | Cartridge kit TM 2000 55 °C | 37,00 |
| 7.030.01907 | cartridge kit | Cartridge kit TM 2000 63 °C | 37,00 |
| 7.030.01908 | cartridge kit | Cartridge kit TM 2000 72 °C | 37,00 |
| 7.030.01909 | cartridge kit | Cartridge kit TM 2000 78 °C | 37,00 |



Blumut

Anti-condensation thermostat group

Blumut is a thermostatic unit complete with recirculation pump that connects a solid fuel heater (pellets, wood, chips...) to one or more inertial heat accumulators. It is a very simple, compact device that works well and is easy to install.

An important aspect of Blumut is that it causes the heater to work at the highest possible temperature in a manner that stops the formation of acid condensate and guarantees stratified filling of the accumulation tank without mixing water internally. Blumut is therefore an effective anti-condensation and anti-thermal shock system that uses the maximum return of the heater to obtain energy-saving results.

The thermostatic elements used have different opening temperatures that range from 50 to 87°C. They can be easily replaced to adapt the working temperature effortlessly to the different characteristics of the unit. The natural circulation between heater and storage can be put to good use even when the pump is stopped. This is an important feature because if the electricity is disconnected for any reason, the heater is guaranteed a minimum flow of cooling water.



TECHNICAL DATA



Nominal pressure
PN10

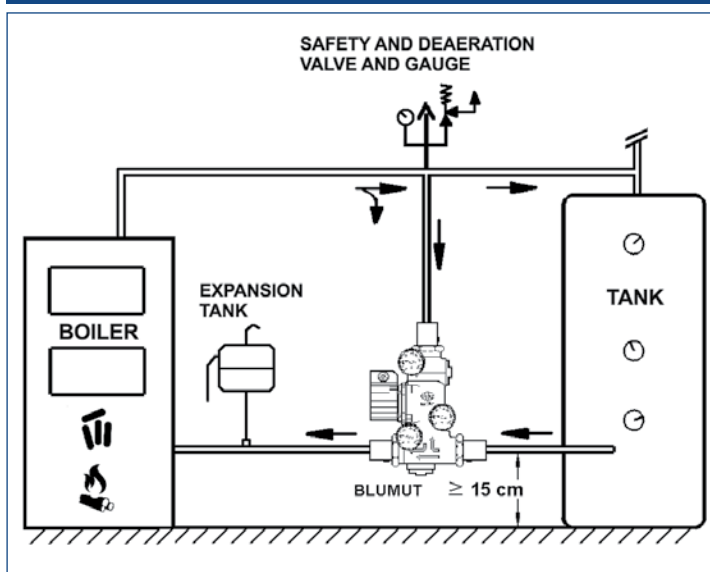


Fl temperature limits
110 °C [max]

CERTIFICATION



OPERATION



Thermostatic-anti-acid-condensate unit Blumut *

| Code | Model | Description | Size | Price € |
|-------------|--------|-------------------------|--------|---------|
| 7.030.01155 | BLUMUT | Blumut filling unit 55° | 1" 1/4 | 450,00 |
| 7.030.00799 | BLUMUT | Blumut filling unit 63° | 1" 1/4 | 450,00 |
| 7.030.01105 | BLUMUT | Blumut filling unit 72° | 1" 1/4 | 450,00 |
| 7.030.00695 | BLUMUT | Blumut filling unit 78° | 1" 1/4 | 450,00 |



| | | | | |
|-------------|-----------|----------------------|--------|--------|
| 7.030.02026 | BLUMUT HE | Blumut HE 55 °C unit | 1" 1/4 | 541,00 |
| 7.030.02027 | BLUMUT HE | Blumut HE 63 °C unit | 1" 1/4 | 541,00 |
| 7.030.02028 | BLUMUT HE | Blumut HE 72 °C unit | 1" 1/4 | 541,00 |
| 7.030.02029 | BLUMUT HE | Blumut HE 78 °C unit | 1" 1/4 | 541,00 |



Blumut temperature kit accessories

| Code | Description | Price € |
|-------------|---------------------------------|---------|
| 7.030.01095 | Blumut thermostatic element 55° | 18,00 |
| 7.030.01039 | Blumut thermostatic element 63° | 18,00 |
| 7.030.01040 | Blumut thermostatic element 72° | 18,00 |
| 7.030.01041 | Blumut thermostatic element 78° | 18,00 |
| 7.030.01042 | Blumut thermostatic element 83° | 18,00 |
| 7.030.01043 | Blumut thermostatic element 87° | 18,00 |



| | | |
|-------------|------------------------|------|
| 7.030.01366 | Thermometer for Blumut | 8,75 |
|-------------|------------------------|------|



| | | |
|-------------|-----------------------|-------|
| 7.030.01728 | Blumut insulation kit | 15,00 |
|-------------|-----------------------|-------|



* If requested all Blumuts can be supplied with insulation and have G 1 ball valves

Blumut Compact

Anti-condensation thermostat group

Blumut Compact is a filling group complete with recycle pump that connects to a solid fuel boiler (pellets, wood, chips...) with one or more accumulation tanks. It is easy to use and functional, very compact and easy to install. Its main characteristic is that it allows a high working temperature to reach the boiler, so stopping the formation of acid condensation. It also guarantees stratified loading of the accumulation tank, limiting the internal mixing of water. Blumut Compact is therefore an efficient anti-condensation and anti-heat shock system that increases boiler return and lengthens boiler life. The thermostatic elements used have different opening temperatures that range from 50 to 87°C. They can be easily replaced, in order to adapt the operation temperature to the different system characteristics. Blumut Compact also favours the natural circulation between boiler and accumulation with the pump stopped, a very important function because a minimum boiler cooling flow rate is guaranteed if the power supply is interrupted.



TECHNICAL DATA



Nominal pressure
PN10

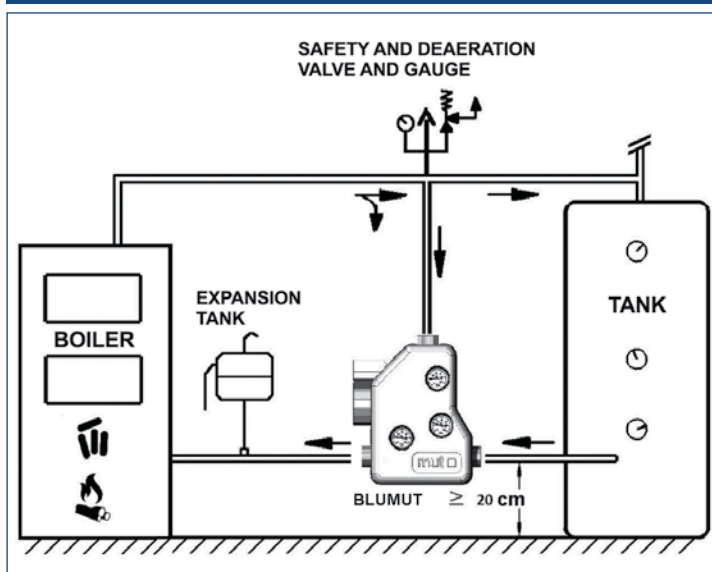


Fl temperature limits
110 °C [max]

CERTIFICATION



OPERATION



Thermostatic-anti-acid-condensate unit, Blumut Compact

| Code | Model | Description | Size | Price € |
|-------------|----------------|---------------------------------|------|---------|
| 7.030.01495 | BLUMUT COMPACT | Blumut filling unit Compact 50° | 1" | 380,00 |
| 7.030.01461 | BLUMUT COMPACT | Blumut filling unit Compact 55° | 1" | 380,00 |
| 7.030.01496 | BLUMUT COMPACT | Blumut filling unit Compact 63° | 1" | 380,00 |
| 7.030.01497 | BLUMUT COMPACT | Blumut filling unit Compact 72° | 1" | 380,00 |
| 7.030.01498 | BLUMUT COMPACT | Blumut filling unit Compact 78° | 1" | 380,00 |



| | | | | |
|-------------|-------------------|------------------------------|----|--------|
| 7.030.02016 | BLUMUT COMPACT HE | Blumut Compact HE 50 °C unit | 1" | 471,00 |
| 7.030.02017 | BLUMUT COMPACT HE | Blumut Compact HE 55 °C unit | 1" | 471,00 |
| 7.030.02018 | BLUMUT COMPACT HE | Blumut Compact HE 63 °C unit | 1" | 471,00 |
| 7.030.02019 | BLUMUT COMPACT HE | Blumut Compact HE 72 °C unit | 1" | 471,00 |
| 7.030.02020 | BLUMUT COMPACT HE | Blumut Compact HE 78 °C unit | 1" | 471,00 |



Blumut Compact temperature kit accessories

| Code | Description | Price € |
|-------------|---|---------|
| 7.030.01488 | Blumut thermostatic element Compact 50° | 18,00 |
| 7.030.01489 | Blumut thermostatic element Compact 55° | 18,00 |
| 7.030.01490 | Blumut thermostatic element Compact 63° | 18,00 |
| 7.030.01491 | Blumut thermostatic element Compact 72° | 18,00 |
| 7.030.01492 | Blumut thermostatic element Compact 78° | 18,00 |
| 7.030.01493 | Blumut thermostatic element Compact 83° | 18,00 |
| 7.030.01494 | Blumut thermostatic element Compact 87° | 18,00 |



| | | |
|-------------|--------------------------------|------|
| 7.030.01903 | Thermometer for Blumut Compact | 8,75 |
|-------------|--------------------------------|------|



Ball valve for pump

| Code | Description | Size | Price € |
|-------------|---------------------------|-----------|---------|
| 7.030.01357 | Ball valve for pump | 2"x1 1/4" | 18,35 |
| 7.030.01358 | Ball valve for pump | 2"x1" | 18,35 |
| 7.030.01499 | Blumut Compact ball valve | 1 1/2"x1" | 16,35 |



Minimum order 2 pcs.

* If requested all Blumuts can be supplied with insulation and have G 1 ball valves

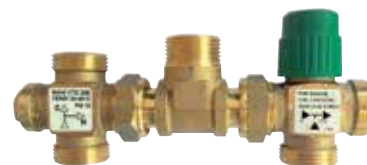
Thermostatic radiator mixer



100 RA SERIES



101 RAJ



102 KIT SOLAR

and diverter valve range



103/105

VMR SERIES
with shutoff



106/108

SF SERIES
spring return

RA SERIES

thermostatic mixer valves

The RA thermostatic mixing valves are used in hot water systems for sanitary use. They keep the temperature of the mixed water supplied to the user constant even when the conditions listed below vary:

- Temperature
- Supply pressure
- Incoming hot and cold water flow

The RA thermostatic mixing valves have a temperature range that is ideal for heating a centralised water system with heater. They also have an internal anti-limestone lining.



CERTIFICATION



TECHNICAL DATA



Type of movement
Thermostatic



Max. ratio between input pressures (H/C or C/H)
2:1



Nominal pressure
PN10



Fl temperature limits
120 °C [max]



Fl adjustment field at output (mix)
30 ÷ 60 °C [precision ±2 °C]

Thermostatic valve - RA series

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|----------------------|--|------|----|-----|---------|
| 7.030.01124 | TWR-RA 15 E solar | Adjustable thermostat mixer valve DN 15 M - 30/60 °C | 1/2" | 10 | 1,7 | 82,00 |
| 7.030.01123 | TWR-RA 20 E solar | Adjustable thermostat mixer valve DN 20 M - 30/60 °C | 3/4" | 10 | 1,7 | 82,00 |
| 7.030.01122 | TWR-RA 25 E solar | Adjustable thermostat mixer valve DN 25 M - 30/60 °C | 1" | 10 | 1,7 | 82,00 |



RAJ SERIES

thermostatic mixer valves

The RAJ thermostatic mixing valves are applied in hot water sanitary systems production and distribution to users.

They guarantee a constant temperature (according to temperature set point value) of the mixed water to the users, even when the following conditions vary:

- temperature of water flows before mixing (incoming hot water and cold water flows)
- Supply pressure
- Flow rates of incoming hot and cold water

The thermostatic mixing valves RAJ have a temperature range (adjustable), suitable for central water heating systems. The valve is provided as standard with a thermal insulating shell to reduce heat loss and avoid burns. The adjustable thermostatic mixing valves Raj are available in 3 sizes (G 1 1/4", G 1 1/2", G 2") . Max hot water temperature inlet: 110 °C. Max working pressure (static): 14 bar.



CERTIFICATION



TECHNICAL DATA



Type of movement
Thermostat



Max. ratio between input pressures (H/C or C/H)
2 :1



Fl temperature limits
5 ÷ 110 °C [max]



Fl adjustment range at output (mix)
RAJ (R 1 1/4"): 30 ÷ 65 °C - RAJ (R 1 1/2"; R 2"): 35 ÷ 65 °C
[precision: ±2 °C]

Thermostatic valve - RAJ series

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|---------|---|---------|----|------|---------|
| 7.030.01732 | TWR-RAJ | Thermostatic radiator valve with nuts and connections of R 1" 1/4 solar | R1" 1/4 | 14 | 9,1 | 740,00 |
| 7.030.01731 | TWR-RAJ | Thermostatic radiator valve with nuts and connections of R 1" 1/2 solar | R1" 1/2 | 14 | 14,5 | 1150,00 |
| 7.030.01730 | TWR-RAJ | Thermostatic radiator valve with nuts and connections of R 2" solar | R2" | 14 | 19 | 1350,00 |



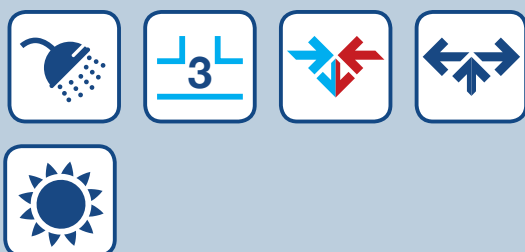
Accessories for RAJ series

| Code | Model | Description | Price € |
|-------------|---------------|---|---------|
| 7.030.01744 | cartridge kit | Cartridge kit for RAJ thermostatic radiator valve R 2" and R 1" 1/2 | 610,00 |
| 7.030.01745 | cartridge kit | Cartridge kit for RAJ thermostatic radiator valve R 1" 1/4 | 310,00 |

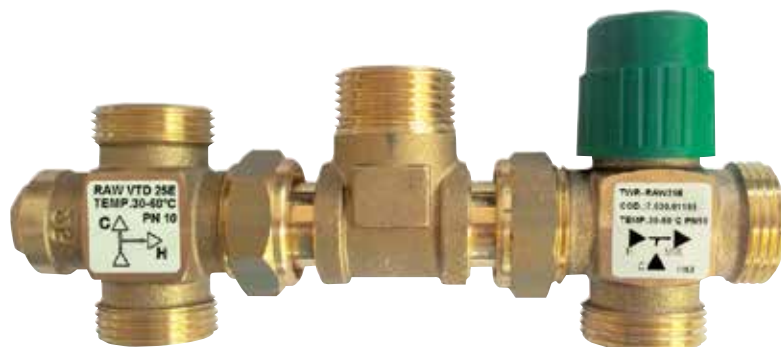


SOLAR KIT

Offers double operation in a compact and efficient manner using thermostatic components only. This makes it completely independent, and makes installation much easier. The kit is made up of two thermostatic devices and a T connecting collector. If the water that enters from the solar collector is not hot enough, it is diverted towards a heater (e.g. wall heater) by the thermostatic shunt valve, and is mixed to the temperature required by the thermostatic mixer when it exits hot from the heater. If the water entering from the solar collector is warm enough, it is diverted towards the thermostatic mixer and directly mixed for use. Solar energy is used efficiently.



CERTIFICATION



TECHNICAL DATA



Type of movement
Thermostatic



Nominal pressure
10 bar



FI temperature limits
5 ÷ 120 °C [max]



Settable opening temperature values
45 °C ÷ 50 °C ÷ 55 °C ÷ 63 °C ÷ 72 °C ÷ 78 °C

Solar kit

| Code | Description | Price € |
|-------------|---|---------|
| 7.030.01195 | Thermal solar kit | 185,50 |
| 7.030.01633 | Thermal solar kit with G 3/4 (45/55°C)(30/60°C) connections | 230,00 |
| 7.030.01634 | Thermal solar kit with G 1 (45/55°C)(30/60°C) connections | 235,00 |



| | | |
|-------------|--|--------|
| 7.030.01609 | Motorized thermal solar kit with G 1 230 V (45/55°C) connections | 295,00 |
|-------------|--|--------|



VMR SERIES

zone valves with shutoff

VMR valves are motorized valves used in home applications and small installations to control the flow of hot and cold water. They can be connected as deviator or mixer valves in central heating or cooling systems.

TECHNICAL DATA



Type of movement
SPDT, SPST, 3 points according to the model



Max. differential pressure
392 kPa



Nominal pressure
PN10



Insulation class
I Ref. European Directive EN 60730



Protection rating
IP 40 Ref. European Directive IEC EN60529



Way commutation time
6 sec.



Way commutation time
6 sec.



Fl temperature limits
5 ÷ 120 °C [max]



VMR 2-WAY



VMR 3-WAY

CERTIFICATION



2-way click-clock zone valves - VMR series

Bipolar external electric control - SPDT *¹ *²

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-------------------------|--|------|----|-----|---------|
| 7.030.00451 | VMR 15-2 SPDT CR M1S | 2-way valve - 230 V - Female gas union - with fast coupling - no cable - with auxiliary micro - for high temperatures | 1/2" | 10 | 3,0 | 97,00 |
| 7.030.00452 | VMR 20-2 SPDT CR M1S | 2-way valve - 230 V - Female gas union - with fast coupling - no cable - with auxiliary micro - for high temperatures | 3/4" | 10 | 5,3 | 98,00 |
| 7.030.00453 | VMR 25-2 SPDT CR M1S | 2-way valve - 230 V - Female gas union - with fast coupling - no cable - with auxiliary micro - for high temperatures | 1" | 10 | 6,0 | 100,00 |



| | | | | | | |
|-------------|--------------------------|--|------|----|-----|--------|
| 7.030.00454 | VMR 20-2E SPDT CR M1S | 2-way valve - 230 V - Male gas union - with fast coupling - no cable - with auxiliary micro - for high temperatures | 3/4" | 10 | 5,3 | 99,00 |
| 7.030.00455 | VMR 25-2E SPDT CR M1S | 2-way valve - 230 V - Male gas union - with fast coupling - no cable - with auxiliary micro - for high temperatures | 1" | 10 | 6,0 | 101,00 |



| | | | | | | |
|-------------|---------------------------|---|-------|----|-----|--------|
| 7.030.00456 | VMR 22-2EB SPDT CR M1S | 2-way valve - 230 V - with fast coupling - no cable - with auxiliary micro - with connections for copper pipes- complete with nuts - ferrules - for high temperatures | 22 mm | 10 | 5,3 | 109,00 |
| 7.030.00457 | VMR 28-2B SPDT CR M1S | 2-way valve - 230 V - with fast coupling - no cable - with auxiliary micro - with connections for copper pipes- complete with nuts - ferrules - for high temperatures | 28 mm | 10 | 6,0 | 110,00 |



2-way click-clock zone valves - VMR series

Unipolar external electric control - SPST (with built-in relay)

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-------------------------|--|------|----|-----|---------|
| 7.030.00458 | VMR 15-2 SPDT CR M1S | 2-way valve - 230 V - Female gas union - with fast coupling - no cable - with auxiliary micro - for high temperatures | 1/2" | 10 | 3,0 | 102,00 |
| 7.030.00459 | VMR 20-2 SPDT CR M1S | 2-way valve - 230 V - Female gas union - with fast coupling - no cable - with auxiliary micro - for high temperatures | 3/4" | 10 | 5,3 | 102,00 |
| 7.030.00460 | VMR 25-2 SPDT CR M1S | 2-way valve - 230 V - Female gas union - with fast coupling - no cable - with auxiliary micro - for high temperatures | 1" | 10 | 6,0 | 105,00 |



| | | | | | | |
|-------------|--------------------------|--|------|----|-----|--------|
| 7.030.00461 | VMR 20-2E SPST CR M1S | 2-way valve - 230 V - Male gas union - with fast coupling - no cable - with auxiliary micro - for high temperatures | 3/4" | 10 | 5,3 | 102,00 |
| 7.030.00462 | VMR 25-2E SPST CR M1S | 2-way valve - 230 V - Male gas union - with fast coupling - no cable - with auxiliary micro - for high temperatures | 1" | 10 | 6,0 | 105,00 |



| | | | | | | |
|-------------|---------------------------|---|-------|----|-----|--------|
| 7.030.00463 | VMR 22-2EB SPST CR M1S | 2-way valve - 230 V - with fast coupling - no cable - with auxiliary micro - with connections for copper pipes- complete with nuts - ferrules - for high temperatures | 22 mm | 10 | 5,3 | 113,00 |
| 7.030.00464 | VMR 28-2B SPST CR M1S | 2-way valve - 230 V - with fast coupling - no cable - with auxiliary micro - with connections for copper pipes- complete with nuts - ferrules - for high temperatures | 28 mm | 10 | 6,0 | 115,00 |



| | | | | | | |
|-------------|---------|--|--|--|--|-------|
| 7.030.00476 | KIT VMR | Shutoff set for 2-way valves - for high temperatures | | | | 30,00 |
|-------------|---------|--|--|--|--|-------|



*¹ All the SF and SFC series valves can be supplied with a 24 V motor

*² All the VMR series valves can be supplied with a fi cable (refer to MUT for the codes)

3-way click-clock zone valves - VMR series

Bipolar external electric control - SPDT* *1 *2

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-----------------------|--|------|----|-----|---------|
| 7.030.00439 | VMR 15 SPDT CR M1S | 3-way valve - 230 V - Female gas connections - with fast coupling - no cable - with auxiliary micro - for high temperatures | 1/2" | 10 | 3,5 | 99,60 |
| 7.030.00440 | VMR 20 SPDT CR M1S | 3-way valve - 230 V - Female gas connections - with fast coupling - no cable - with auxiliary micro - for high temperatures. | 3/4" | 10 | 7,0 | 101,00 |
| 7.030.00441 | VMR 25 SPDT CR M1S | 3-way valve - 230 V - Female gas connections - with fast coupling - no cable - with auxiliary micro - for high temperatures | 1" | 10 | 8,0 | 107,00 |



| | | | | | | |
|-------------|------------------------|---|------|----|-----|--------|
| 7.030.00442 | VMR 20E SPDT CR M1S | 3 way valve - 230 V - Male Gas connections - with quick connector - no cable - with auxiliary micro - for high temps. | 3/4" | 10 | 7,0 | 102,00 |
| 7.030.00443 | VMR 25E SPDT CR M1S | 3 way valve - 230 V - Male Gas connections - with quick connector - no cable - with auxiliary micro - for high temps | 1" | 10 | 8,0 | 107,00 |



| | | | | | | |
|-------------|-------------------------|---|-------|----|-----|--------|
| 7.030.00467 | VMR 22EB SPDT CR M1S | 3-way valve - 230 V - with fast coupling - no cable - with auxiliary micro - with connections for copper pipes- complete with nuts - ferrules - for high temperatures | 22 mm | 10 | 7,0 | 117,00 |
| 7.030.00444 | VMR 28B SPDT CR M1S | 3-way valve - 230 V - with fast coupling - no cable - with auxiliary micro - with connections for copper pipes- complete with nuts - ferrules - for high temperatures | 28 mm | 10 | 8,0 | 121,00 |



3-way click-clock zone valves - VMR series

Unipolar external electric control - SPST (with built-in relay)

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|-----------------------|---|------|----|-----|---------|
| 7.030.00445 | VMR 15 SPST CR M1S | 3-way valve - 230 V - Female gas connections - with fast coupling - no cable - with auxiliary micro - for high temps. | 1/2" | 10 | 3,5 | 103,00 |
| 7.030.00446 | VMR 20 SPST CR M1S | 3-way valve - 230 V - Female gas connections - with fast coupling - no cable - with auxiliary micro - for high temps. | 3/4" | 10 | 7,0 | 107,00 |
| 7.030.00447 | VMR 25 SPST CR M1S | 3-way valve - 230 V - Female gas connections - with fast coupling - no cable - with auxiliary micro - for high temps. | 1" | 10 | 8,0 | 112,00 |



| | | | | | | |
|-------------|------------------------|---|------|----|-----|--------|
| 7.030.00448 | VMR 20E SPST CR M1S | 3-way valve - 230 V - Male gas connections - with fast coupling - no cable - with auxiliary micro - for high temps. | 3/4" | 10 | 7,0 | 107,00 |
| 7.030.00449 | VMR 25E SPST CR M1S | 3-way valve - 230 V - Male gas connections - with fast coupling - no cable - with auxiliary micro - for high temps. | 1" | 10 | 8,0 | 112,00 |



| | | | | | | |
|-------------|-------------------------|---|-------|----|-----|--------|
| 7.030.00466 | VMR 22EB SPST CR M1S | 3-way valve - 230 V - with fast coupling - no cable - with auxiliary micro - with connections for copper pipe - complete with nuts - ferrules - for high temperatures | 22 mm | 10 | 7,0 | 121,00 |
| 7.030.00450 | VMR 28B SPST CR M1S | 3-way valve - 230 V - with fast coupling - no cable - with auxiliary micro - with connections for copper pipe - complete with nuts - ferrules - for high temperatures | 28 mm | 10 | 8,0 | 126,00 |



| | | | | | | |
|-------------|---------|--|--|--|--|-------|
| 7.030.00475 | KIT VMR | Shutoff set for 3-way valves - for high temperatures | | | | 30,00 |
|-------------|---------|--|--|--|--|-------|



*1 All the SF and SFC series valves can be supplied with a 24 V motor

*2 All the VMR series valves can be supplied with a fi cable (refer to MUT for the codes)

SF SERIES

zone valves
with spring return

These are powered by an electric motor and can assume two operating positions depending on whether the motor is activated or not. One or two auxiliary switches can be installed on request. These are activated when the valve switches.

The valves are equipped with an external lever for manual positioning of the shut-off ball in a central position.

TECHNICAL DATA



Type of movement
Spring return



Max. differential pressure
90.2 kPa



Nominal pressure
PN10



Insulation class
III Ref. European Directive EN60730



Protection rating
IP 22 Ref. European Directive IEC EN60529



Way commutation time
10 sec.



Way commutation time
4 sec.



Fl temperature limits
5 ÷ 120 °C [max]



Cable length
1000 mm

CERTIFICATION



SF 2-WAY



SF 3-WAY

SF series 2-way zone valves *

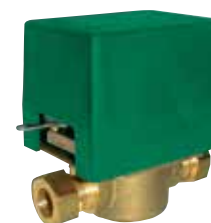
| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|------------|---|------|----|-----|---------|
| 7.030.00422 | SF 15-2 M1 | 2-way valve - 230 V - Female gas connections with auxiliary micro - for high temperatures | 1/2" | 10 | 6,0 | 87,50 |
| 7.030.00423 | SF 20-2 M1 | 2-way valve - 230 V - Female gas connections with auxiliary micro - for high temperatures | 3/4" | 10 | 8,0 | 88,50 |
| 7.030.00424 | SF 25-2 M1 | 2-way valve - 230 V - Female gas connections with auxiliary micro - for high temperatures | 1" | 10 | 10 | 89,50 |



| | | | | | | |
|-------------|--------------|---|------|----|-----|-------|
| 7.030.00425 | SF 15-2 E M1 | 2-way valve - 230 V - Male gas connections with auxiliary micro - for high temperatures | 1/2" | 10 | 6,0 | 87,50 |
| 7.030.00426 | SF 20-2 E M1 | 2-way valve - 230 V - Male gas connections with auxiliary micro - for high temperatures | 3/4" | 10 | 8,0 | 88,50 |
| 7.030.00427 | SF 25-2 E M1 | 2-way valve - 230 V - Male gas connections with auxiliary micro - for high temperatures | 1" | 10 | 10 | 89,50 |



| | | | | | | |
|-------------|---------------|--|-------|----|-----|-------|
| 7.030.00428 | SF 15-2 EB M1 | 2-way valve - 230 V - connections for copper pipe with auxiliary micro - complete with nuts - ferrules for high temperatures | 15 mm | 10 | 6,0 | 93,50 |
| 7.030.00429 | SF 16-2 EB M1 | 2-way valve - 230 V - connections for copper pipe with auxiliary micro - complete with nuts - ferrules for high temperatures | 16 mm | 10 | 6,0 | 94,50 |
| 7.030.00430 | SF 20-2 EB M1 | 2-way valve - 230 V - connections for copper pipe with auxiliary micro - complete with nuts - ferrules for high temperatures | 22 mm | 10 | 8,0 | 96,50 |
| 7.030.00431 | SF 25-2 B M1 | 2-way valve - 230 V - connections for copper pipe with auxiliary micro - complete with nuts - ferrules for high temperatures | 28 mm | 10 | 10 | 97,50 |



| | | | | | | |
|-------------|------------|---|--------|----|------|--------|
| 7.030.00420 | SF BASE M1 | 2-way valve - 230 V - complete with flanges with auxiliary micros - for high temperatures | 1" 1/4 | 10 | 12,6 | 119,50 |
|-------------|------------|---|--------|----|------|--------|



* All the valves in the SF and SFC series can be supplied with 24 V and 110 V motors (please contact MUT for codes)

SF series 3-way zone valves *

| Code | Model | Description | Size | PN | KVS | Price € |
|-------------|----------|--|------|----|------|---------|
| 7.030.00410 | SF 15 M1 | 3-way valve- 230 V - Female gas union with auxiliary micro - for high temperatures | 1/2" | 10 | 6,6 | 91,00 |
| 7.030.00411 | SF 20 M1 | 3-way valve- 230 V - Female gas union with auxiliary micro - for high temperatures | 3/4" | 10 | 8,0 | 92,00 |
| 7.030.00387 | SF 25 M1 | 3-way valve- 230 V - Female gas union with auxiliary micro - for high temperatures | 1" | 10 | 12,6 | 95,00 |



| | | | | | | |
|-------------|------------|--|------|----|------|-------|
| 7.030.00412 | SF 15 E M1 | 3-way valve- 230 V - Male gas union with auxiliary micro - for high temperatures | 1/2" | 10 | 6,6 | 91,00 |
| 7.030.00413 | SF 20 E M1 | 3-way valve- 230 V - Male gas union with auxiliary micro - for high temperatures | 3/4" | 10 | 8,0 | 92,00 |
| 7.030.00414 | SF 25 E M1 | 3-way valve- 230 V - Male gas union with auxiliary micro - for high temperatures | 1" | 10 | 12,6 | 95,00 |

| | | | | | | |
|-------------|-------------|---|-------|----|------|--------|
| 7.030.00415 | SF 15 EB M1 | 3-way valve - 230 V - connections for copper pipe with auxiliary micros - complete with nuts - ferrules - for high temperatures | 15 mm | 10 | 6,6 | 100,00 |
| 7.030.00416 | SF 16 EB M1 | 3-way valve - 230 V - connections for copper pipe with auxiliary micros - complete with nuts - ferrules - for high temperatures | 16 mm | 10 | 6,6 | 101,00 |
| 7.030.00417 | SF 20 EB M1 | 3-way valve - 230 V - connections for copper pipe with auxiliary micros - complete with nuts - ferrules - for high temperatures | 22 mm | 10 | 8,0 | 104,50 |
| 7.030.00418 | SF 25 B M1 | 3-way valve - 230 V - connections for copper pipe with auxiliary micros - complete with nuts - ferrules - for high temperatures | 28 mm | 10 | 12,6 | 110,50 |



| | | | | | | |
|-------------|------------|--|--------|----|------|--------|
| 7.030.00419 | SF BASE M1 | 3-way valve - 230 V - connections prepared for flanges with auxiliary micros - for high temperatures | | 10 | 12,6 | 93,00 |
| 7.030.00421 | SF BASE M1 | 3-way valve - 230 V - complete with flanges with auxiliary micros - for high temperatures | 1" 1/4 | 10 | 12,6 | 126,50 |



SF valve accessories

| Code | Description | Size | Price € |
|-------------|---|--------------|---------|
| 7.030.00468 | Brass cover for 2-way valve - for high temperatures | 1/2"-3/4"-1" | 40,50 |
| 7.030.00469 | Brass cover for 2-way valve - for high temperatures | 1/2"-3/4" | 40,50 |
| 7.030.00470 | Brass cover for 2-way valve - for high temperatures | 1" | 41,50 |



| | | | |
|-------------|--|-----------|-------|
| 7.030.00471 | Mount for 3-way valve - 230 V with auxiliary micro - for high temperatures | 1/2"-3/4" | 80,50 |
| 7.030.00472 | Mount for 3-way valve - 230 V with auxiliary micro - for high temperatures | 1" | 83,50 |
| 7.030.00473 | Mount for 2-way valve - 230 V with auxiliary micro - for high temperatures | 1/2"-3/4" | 77,40 |
| 7.030.00474 | Mount for 2-way Basic SF and SFC valves 230 V with auxiliary micro - for high temperatures | 1" | 85,00 |

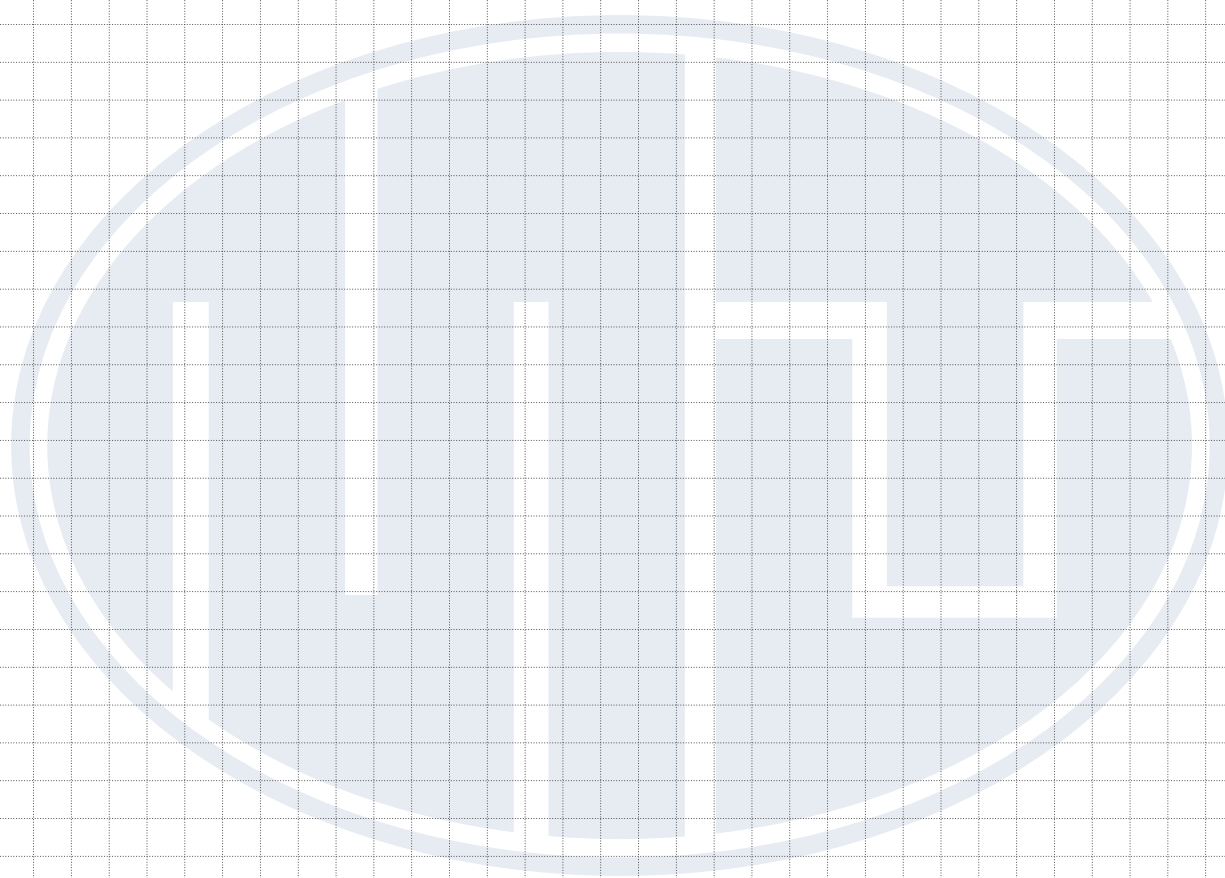


* All the valves in the SF and SFC series can be supplied with 24 V and 110 V motors (please contact M

motor-valve compatibility table

| | MOTORS | | | | | | | | | |
|--------|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | AS 1400 | AS 800 | AS 250 | M 1000 | V 200 | V 70 | ARM | V3EC | V3 | MR |
| VALVES | MK SERIES (range from G 1/2 to G2) | ✓ page 30 | ✓ page 30 | | | | | | | |
| | MK SERIES (range from DN50 to DN80) | ✓ page 32 | ✓ page 30 | | | | | | | |
| | MK SERIES (range from DN100 to DN150) | ✓ page 32 | | | | | | | | |
| | VM/VF 1000 SERIES (range from DN20 to DN50) | | | | ✓ page 46 | | | | | |
| | VM/VF 1000 SERIES (range from DN65 to DN125) | | | ✓ page 46 | | | | | | |
| | VM/VDM 2000 SERIES | | | | ✓ page 46 | ✓ page 46 | | | | |
| | VM/VDM 3000 SERIES | | | | | ✓ page 46 | | | | |
| | VMX-H SERIES | | | | | ✓ page 46 | | | | |
| | VDE/MR SERIES | | | | | | | | | ✓ page 14 |
| | VMR SERIES | | | | | | | | | ✓ page 14 |
| | VPR SERIES (stroke 2.5 mm) | | | | | | ✓ page 35 | ✓ page 35 | ✓ page 35 | |
| | VPR SERIES (stroke 6 mm) | | | | | | | | ✓ page 35 | |
| | FV3-V3B SERIES | | | | | | | ✓ page 66 | ✓ page 66 | |
| | F2V SERIES | | | | | | | ✓ page 66 | ✓ page 66 | |

Note



MUT TERMS OF SALE

GENERAL CONDITIONS

(Stipulation of the agreement)

Unless otherwise agreed in writing, the agreement is stipulated upon acceptance of the Customer's order by MUT and, if the acceptance contains modifications to the order, upon subsequent confirmation by the Customer.

These general terms apply to the agreement. Any exemptions or additions to said terms are valid only if specifically accepted by MUT in writing.

These general terms will also apply to agreements stipulated subsequently with the same customer, without the need for further deeds or procedures for stipulation and acceptance thereof.

Orders collected or commitments undertaken by our representatives are valid after our acceptance or written confirmation has been given.

The Customer's general conditions will not be applied under any circumstances, even partially.

(Amendments to the agreement)

Any amendments to the agreement, proposed by the Customer, will be valid only if accepted in writing by MUT.

(Competent court of jurisdiction)

Any disputes will be referred exclusively to the Court of Vicenza.

INDUSTRIAL INFORMATION

(Industrial information communicated by MUT)

Any drawing, design, document or technical information, software or any other industrial information transmitted or communicated, also verbally, to the Customer prior to or after stipulation of the agreement remains the sole property of MUT. In particular, said industrial information may not be used by the Customer, copied or reproduced, transmitted, communicated or disclosed to third parties without the prior written consent of MUT.

CATALOGUES AND PRICE LISTS

The technical data, measurements, specifications, performance and all other information reproduced in our catalogues, price lists, brochures, circulars etc. are intended as a guide only and may be amended without notice. The parameters are binding only if specified in the order acknowledgement.

WARRANTY AND LIABILITY OF MUT

(Extension and duration of the warranty - Reporting of defects)

MUT has no knowledge of the use the Customer intends to make of the product.

MUT guarantees the Customer that the product complies with what has been agreed and with the specifications provided in the technical data sheet and that it is free from design and manufacturing defects.

It furthermore guarantees efficient operation of the product if used correctly, in addition to compliance with the technical regulations, safety regulations, environmental regulations and other regulations in force in Italy.

Our warranty is limited to replacement and/or repair of the faulty part at our factory. The parts produced by us, recognised by us as defective, after written communication thereof by the Customer within 15 (fifteen) days from the date of discovery of said defect, on pain of forfeiture, are replaced and/or repaired by us and dispatched ex works.

The warranty will run for 12 (twelve) months starting from the invoice date.

The liability of MUT is limited to elimination of the defects that occur during normal operation, in the course of correct use and diligent performance of assembly and maintenance of the parts. Claims for direct and indirect damages, loss of production, compensation of any type, penalties and any costs are excluded.

All guarantees for components or products that have been tampered with or repaired or altered outside our factory without our authorisation are furthermore excluded.

In any case MUT accepts no liability for damage relating to non-operation or interrupted operation of a plant in which the Customer has inserted the product.

(Extracontractual liability)

It is understood that any liability deriving from plants or machinery in which the Customer has inserted the products, including any injury to persons or damage to things, pertains solely to the Customer.

DELIVERY AND PAYMENTS

(Delivery)

The goods are delivered ex works. Also in the case of different methods of dispatch, requested by the Customer and confirmed by us in the order acceptance, the goods will travel at the Customer's risk. Customers who request in writing insurance cover against transport risks shall sustain the related costs. The carrier declines all liability and undertaking for any strikes, transport interruptions, delays and unforeseen events of any type that can be attributed to circumstances beyond its control.

The goods are packed by us with maximum care and to the highest standards, therefore in the event of damage the Customer shall address all reservations and any complaints directly to the carrier.

The time required for production of the supply and the consequent delivery terms indicated in our offers and acknowledgements are indicative and not binding. Causes of force majeure such as fire, flooding, natural catastrophes, strikes etc. suspend the obligation to observe said times and terms.

(Payments)

The terms and conditions of payment are those scheduled in the order. In the event of delay in payment, interest in the amount provided for by the Legislative Decree 231/2002 will be due to MUT, as from the due date originally agreed.

MUT may suspend production and deliveries in the event of non-fulfilment of the Customer or if circumstances exist making it likely that the Customer will not regularly fulfil the agreement.



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