





### **60 YEARS OF ITALIAN TRADITION**

Luxor is an important industrial reality, world wide and European market leader in the production of flexible hoses and components for hydro and thermo-sanitary installations. Luxor has been the expression of the most prestigious made in Italy and the great Italian high technology mechanical workings tradition for fifty years; a quality certified and recognized by the most prestigious International Certification Institutes all over the world.

Our mission is the complete customer satisfaction through a process of continuous technological research in order to make high quality, reliable products, anticipating the market evolutions by innovative partnership with both customers and suppliers. Luxor mission takes

place in its own Research and Development Centre in which new and advanced technologies are constantly analyzed and researched with continuous investments to offer the most innovative and reliable solutions for the international markets at competitive costs, ensuring strict quality controls on each single piece.

Luxor entirely plans and realizes each product, thanks to its decennial know how. The great production strength, a "slender" innovative and advanced industrial organization together with a modern logistic conception, make Luxor able to satisfy every kind of request, even customized, with fast deliveries all over the world.



Luxor is certified ISO 9001:2015 by DEKRA Group certification body

#### **CERTIFICATION**





















UNI EN 215 **EUROPE** 

KIWA-UNI ITALY

DVGW

**GERMANY** GERMANY

**GERMANY** 

ΤÜV GERMANY

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Please refer to www.nsf.org for a complete list of NSF approved Please refer to www.iapmort.org for a complete list of UPC/cUPC

approved products.



**RADIATOR VALVES** 

1.5 / M-MT



## 4-WAY MANUAL VALVES FOR SINGLE PIPE DISTRIBUTION SYSTEM



Single pipe valves feature a fixed stem, whose tightness is ensured by an o-ring and a flat teflon gasket which may be adjusted through a brass stuffing nut.

The valves are nickel plated.

#### **TECHNICAL DATA**

15 20

Max temperature

120 °C



10 bar



pressure 1 bar



Max differential



Materials CW617N

UNI EN

12165:2016

Knob

white ABS **RAL 9016** 

Probe

Polyamide

#### **SYSTEM CONNECTIONS**



Copper pipe W 24x19 - TR 91



Plastic pipe W 24x19 - TP 95



Multilayer pipe W 24x19 - TP 97

#### **RADIATOR** CONNECTION



cylindrical thread G 1/2 G 3/4

**CENTRE TO** CENTRE DISTANCE



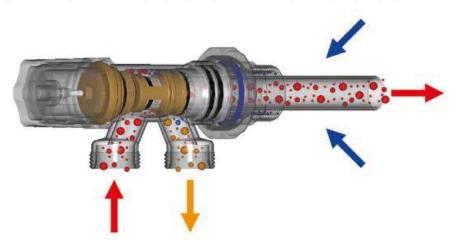
40 mm

#### **PROBE**

4-way M valves are provided with a M 523 polyamide probe which enables them to correctly distribute the flow in heating bodies up to 50 cm in length. Should the direction of flow indicated by the arrow on the body not be observed, or should the heating body be longer than 50 cm, a M 525polyamide extension must be installed and then cut so that the other end is located 10 cm far from the edge of the heating body.



#### 4-WAY MANUAL VALVES FOR SINGLE PIPE DISTRIBUTION SYSTEM M 87



Luxor manufactures 4-way manual valves for single and double pipe systems which easily meet any requirement. All 4-way valves are designed so that the heating medium can flow in and out of the heating body through a single connection. These valves must be installed on the bottom connection of the heating body. 4-way valves for single and double pipe systems are designed to:

- Connect the heating body to the single pipe ring tubing, which can be in copper, plastic or PEX-AL-PEX multilayer;
- Allow for room temperature setting by adjusting the inlet flow;
- Intercept the flow so as to allow for maintenance without affecting the functioning of the remaining heating bodies.

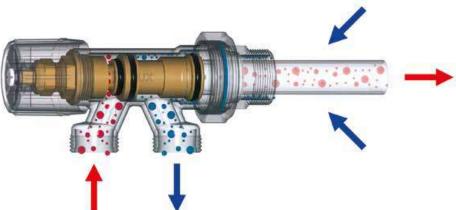
The valve divides the incoming flow into two: one part enters the heating body, while the other flows on to the next heating body through the bypass. The advantage is that the flow coming out of a low temperature heating body mixes with the flow which has passed through the bypass and has a higher temperature; in this way, the flow proceeding towards the next heating body will have a higher thermal input.

M 87 valves are equipped with a fixed bypass allowing 50% of the ring flow rate to enter the heating body.

#### 4-WAY MANUAL VALVES FOR SINGLE/DOUBLE PIPE DISTRIBUTION SYSTEM M 88

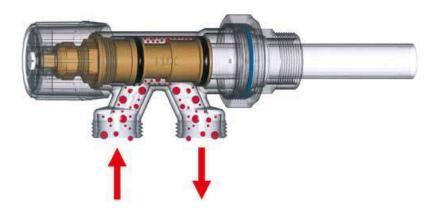
When in fully open position, M 88 valves do not divert the flow, so that 100% of the ring flow enters the heating body (see picture above).

The bypass opens gradually and proportionally to the closure of the obturator (see picture below).



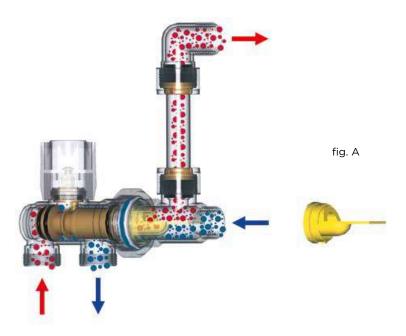
When in fully closed position, the bypass does not allow any liquid to enter the heating body.

The other features are the same as for the manual valve M87 for single pipe distribution system.



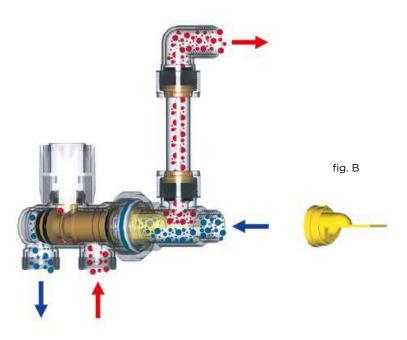


#### 4-WAY VERTICAL MANUAL VALVES FOR SINGLE PIPE DISTRIBUTION SYSTEM M 81-83-85



4-way vertical manual valves are available in two versions: single pipe with a 50% bypass or double pipe with 100% of the ring flow rate. The valves must be connected to the system observing the direction indicated by the arrows on the body. In this way, the valves can heat up heating bodies with up to 7-8 elements. Should the flow direction not be respected or should the heating body be composed of more than 8 elements, a M 525 extension must be installed on valves M 81 and M 83.

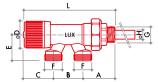
The extension must then be cut so that the other end is located 10 cm far from the edge of the heating body. If the flow direction is not observed with valves M 85 and M 86, it is necessary to correct it by turning the baffle inside the conveyor body. Use the baffle as shown in fig. A to let the flow enter through the connection as displayed by the arrow.



Should the arrow direction not be observed during installation, use the baffle as shown in fig. B.

#### 4-WAY MANUAL VALVES FOR SINGLE PIPE DISTRIBUTION SYSTEM: **CONNECTION FOR COPPER AND PLASTIC PIPE W24X19**





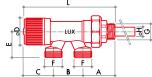
#### M 87

4-way single adjustment horizontal manual single pipe valve. Maximum flow to radiator: 50% ring flow. Connections for copper and plastic pipe.

TR 91 TP 95 TP 97

CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	g	$\Rightarrow$	
68072100	DN 15 1/2	45	40	41	37	35	W24x19	G 1/2	12	126	360	5	40
68072700	DN 20 3/4	45	40	41	37	35	W24x19	G 3/4	16	126	358	5	40





#### M 88

4-way single adjustment horizontal manual single pipe valve (for double pipe systems). Maximum flow to radiator: 100% ring flow. Connections for copper and plastic pipe.

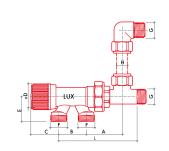
#### Fittings



TR 91	TP 95	TP 97

CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	9	$\Longrightarrow$	
68072101	DN 15 1/2	45	40	41	37	35	W24x19	G 1/2	12	126	366	5	40
68072701	DN 20 3/4	45	40	41	37	35	W24x19	G 3/4	16	126	363	5	40





### M 86

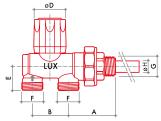
Single adjustment horizontal straight single pipe valve, with flow conveyor. Maximum flow to radiator: 50% and 100% ring flow. Connections for copper and plastic pipe.

#### Fittings

TR 91	TP 95	TP 97

CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	g	$\Rightarrow$	
68072102	DN 15 1/2 50%	52	40	41	37	35	W24x19	G 1/2	15	110	488	5	40
68072103	DN 15 1/2 100%	52	40	41	37	35	W24x19	G 1/2	15	110	490	5	40





#### M 81

Single adjustment vertical manual single pipe valve. Maximum flow to radiator: 50% ring flow. Connections for copper and plastic pipe.

Fittings

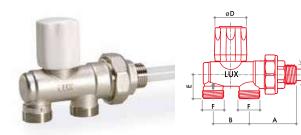






CODE SIZE С D F G G  $\Rightarrow$ 68032101 DN 15 1/2 50 40 35 W24x19 G 1/2 12 344 5 40 68032701 DN 20 3/4 W24x19 G 3/4 40





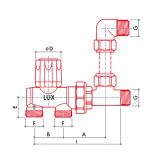
#### M 83

Single adjustment vertical manual single pipe valve. Maximum flow to radiator: 100% ring flow. Connections for copper and plastic pipe.

	Fittings	
TR 91	TP 95	TP 97

CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	ĝ	$\Rightarrow$	
68042100	DN 15 1/2	50	40	-	35	27	W24x19	G 1/2	12	-	346	5	40
68042700	DN 20 3/4	50	40	-	35	27	W24x19	G 3/4	16	-	348	5	40





#### M 85

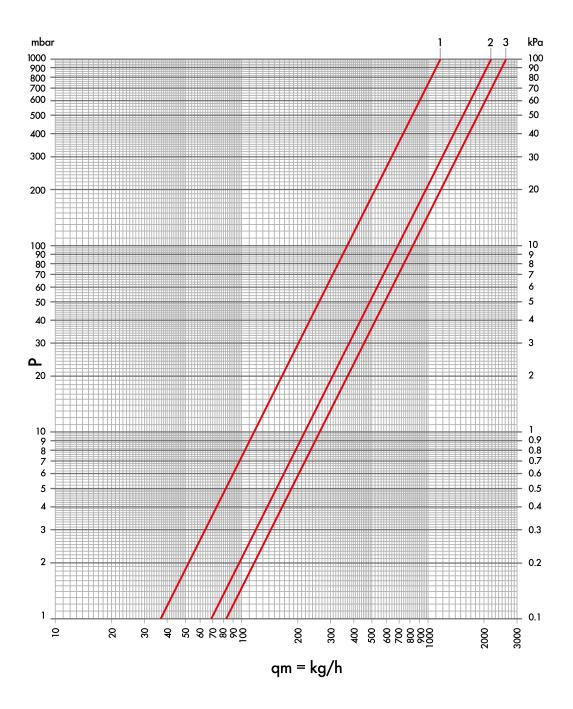
Single adjustment vertical straight single bigdstrient vertical straight single pipe valve, with flow conveyor. Maximum flow to radiator: 50% and 100% ring flow. Connections for copper and plastic pipe.

Fittings	

TR 91	TP 95	TP 9

CODE	SIZE	Α	В	С	D	E	F	G	Н	L	g	$\Rightarrow$	
68042102	DN 15 1/2 50%	57	40	-	35	27	W24x19	G 1/2	15	114	552	5	40
68042103	DN 15 1/2 100%	57	40	-	35	27	W24x19	G 1/2	15	114	555	5	40





ITEM	Kv	POS
M 88 1/2 M 88 3/4 M 86 1/2 100%	1.61	1
M 83 1/2 M 83 3/4 M 85 1/2 100%	2.16	2
M 87 1/2 M 87 3/4 M 86 1/2 50% M 81 1/2 M 81 3/4 M 85 1/2 50%	2.60	3



# MT 4-WAY THERMOSTATIC VALVES FOR SINGLE PIPE DISTRIBUTION SYSTEM



With  $\Delta t$ =2K and if coupled with a thermostatic head, thermostatic single pipe valves can supply an heating body with the equivalent of 35% of the system's total flow rate.

The thermostatic screw allows to replace one of the o-rings on the control stem without draining the system. The valves are nickel plated.

#### **TECHNICAL DATA**

# Ø

DN 15 20



120 °C



Max pressure

10 bar



Max differential pressure 1 bar



Materials

CW617N UNI EN 12165:2016



white ABS RAL 9016



AISI 316



Polyamide

#### SYSTEM CONNECTIONS



**Copper pipe** W 24x19 - TR 91



**Plastic pipe** W 24x19 - TP 95



**Multilayer pipe** W 24x19 - TP 97

## RADIATOR CONNECTION



cylindrical thread G 1/2 G 3/4

CENTRE TO CENTRE DISTANCE



40 mm

#### **PROBE**

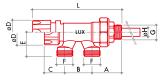
4-way M valves are provided with a M 523 polyamide probe which enables them to correctly distribute the flow in heating bodies up to 50 cm in length. Should the direction of flow indicated by the arrow on the body not be observed,

or should the heating body be longer than 50 cm, a M 525 polyamide extension must be installed and then cut so that the other end is located 10 cm far from the edge of the heating body.



#### 4-WAY THERMOSTATIC VALVES FOR SINGLE PIPE DISTRIBUTION SYSTEM: **CONNECTION FOR COPPER AND PLASTIC PIPE W24X19**





#### MT 282

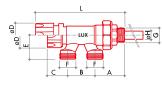
4-ways thermostatically or electronically controlled valve with protection cap. Maximum flow to radiator: 35% ring flow ( $\Delta t=2K$ ). Connections for copper and plastic pipe.





CODE	SIZE	Α	В	С	D	E	F	G	Н	L	g	$\Rightarrow$	
68010021	DN 15 1/2	46	40	30	37	35	W24x19	G 1/2	12	115	353	5	40
68010027	DN 20 3/4	46	40	30	37	35	W24x19	G 3/4	16	115	351	5	40





#### MT 2582

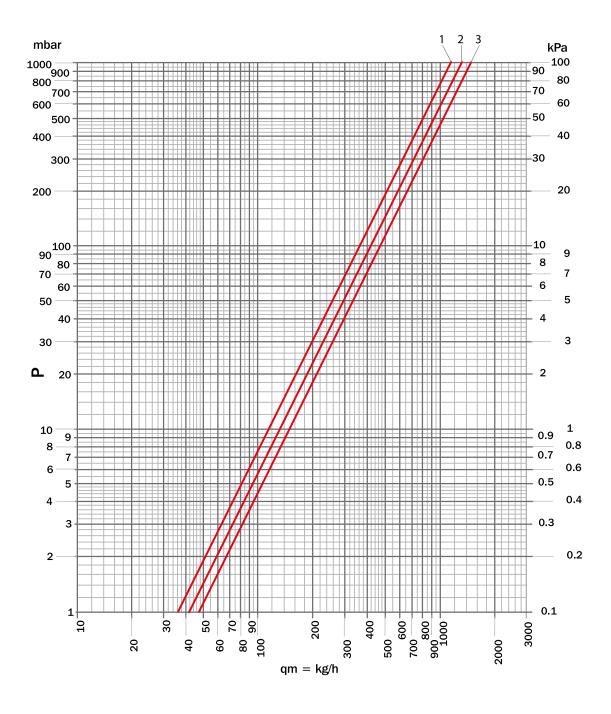
4-ways thermostatically or electronically controlled valve with manual adjustment knob article VT 2600. Maximum flow to radiator: 35% ring flow ( $\Delta t$ =2K). Connections for copper and plastic pipe.

#### Fittings



CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	ĝ	$\Rightarrow$	
68010121	DN 15 1/2	46	40	47	35	35	W24x19	G 1/2	12	133	360	5	40
68010127	DN 20 3/4	46	40	47	35	35	W24x19	G 3/4	16	133	360	5	40





ITEM	SIZE	RA %	TURNS N°	Kv	POS
	DN 15 1/2	0	closed	1,15	1
MT 282	DN 20 3/4	O	ciosed	1,15	1
M1 282	DN 15 1/2	100	allonon	1,30	2
	DN 20 3/4	100	all open	1,45	3
	DN 15 1/2	0	closed	1,15	1
MT 2502	DN 20 3/4	0	ciosed	1,15	1
MT 2582	DN 15 1/2	100	allanan	1,30	2
	DN 20 3/4	100	all open	1,45	3

#### VALVES FOR SINGLE/DOUBLE PIPE DISTRIBUTION SYSTEM



Manual M valves feature a fixed stem, whose tightness is ensured by an o-ring and a flat PTFE gasket which may be adjusted through a brass stuffing nut. When in closed position, the tightness is granted by an o-ring and a conical metal collar. The screw of thermostatic M valves allows to

preset the flow thanks to a shaped acetal ring. The thermostatic screw enables to replace one of the o-rings on the control stem without draining the system. The valves are nickel plated.

**SYSTEM CONNECTIONS** 

#### **TECHNICAL DATA**



15



Max temperature 120 °C



10 bar



Max differential pressure (thermostatic valves)



Max differential pressure 1 bar

0,6 bar



Iron pipe



Copper pipe W 24x19 - TR 91 G 3/4 EK - TR 91/A





Materials





Knoh

white ABS **RAL 9016** 



Stem

**AISI 316** 



Testing

100%



G 1/2

Plastic pipe W 24x19 - TP 95 G 3/4 EK - TP 98



**Multilayer pipe** W 24x19 - TP 97 G 3/4 EK - TP 99

#### **RADIATOR** CONNECTION



conical knurled thread G 1/2

#### FLOW ADJUSTMENT AND REVERSE FLOW

To adjust the maximum flow rate, proceed as follows:

 align the reference mark on the stainless steel stem with one of the positions marked on the valve.

Luxor thermostatic valves are now EN 215 approved in reverse flow mode as well. This characteristic allows for installation on the inlet as well as on the outlet of the radiator up to a 0,6 bar differential pressure.









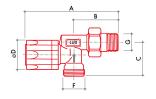
All valves and lockshields are 100% checked with an electronically controlled pneumatic test.

The characteristics of the fluid in the system must be compliant with the UNI 8065: 2019 directive.



#### **VALVES FOR SINGLE/DOUBLE PIPE DISTRIBUTION SYSTEM: CONNECTION FOR COPPER AND PLASTIC PIPE W24X19**





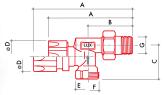
#### M 300

Single adjustment reverse angle radiator valve. Connection for copper and plastic pipe.



CODE	SIZE	Α	В	С	D	E	F	G	Н	L	g	$\Rightarrow$	
13062100	DN 15 1/2	108	52	39	35	-	W24x19	R 1/2	-	-	215	10	80

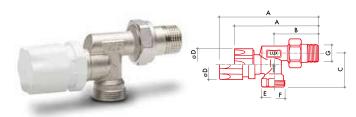




Reverse angle radiator valve, thermostatically or electronically controlled with protection cap. Connection for copper and plastic pipe.



CODE	SIZE	А	В	С	D	E	F	G	Н	L	9	$\Rightarrow$	
13102100	DN 15 1/2	95	52	39	37	-	W24x19	R 1/2	-	-	207	10	80



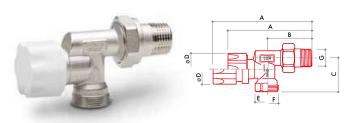
#### M 330

Reverse angle radiator valve, thermostatically or electronically controlled with manual adjustment knob. Connection for copper and plastic pipe.



CODE	SIZE	Α	В	С	D	E	F	G	Н	L	g	$\Rightarrow$	
13122100	DN 15 1/2	116	52	39	35	-	W24x19	R 1/2	-	-	215	10	80

#### **VALVES FOR SINGLE/DOUBLE PIPE DISTRIBUTION SYSTEM: CONNECTION FOR COPPER AND PLASTIC PIPE G3/4 EUROKONUS**

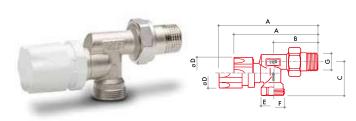


#### M 320/A

Reverse angle radiator valve, thermostatically or electronically controlled with protection cap. Eurokonus connections.

	Fittings	;
TR 91/A	TP 98	TP 99

C	ODE	SIZE	Α	В	С	D	Е	F	G	Н	L	9	$\Rightarrow$	
1 151	02721	DN 15 1/2	95	52	39	37	-	G 3/4 EK	R 1/2	-	-	210	10	80



#### M 330/A

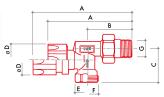
Reverse angle radiator valve, thermostatically or electronically controlled with manual adjustment knob. Eurokonus connections.



CODE	SIZE	Α	В	С	D	E	F	G	Н	L	g	$\Rightarrow$	
13122721	DN 15 1/2	116	52	39	35	-	G 3/4 EK	R 1/2	-	-	217	10	80

#### **VALVES FOR SINGLE/DOUBLE PIPE DISTRIBUTION SYSTEM: CONNECTION FOR IRON PIPE**



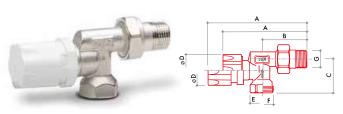


#### M 322

Reverse angle radiator valve, thermostatically or electronically controlled with protection cap. Connections for iron pipe.



CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	g	$\Rightarrow$	
13202100	DN 15 1/2	95	52	40	37	G 1/2	-	R 1/2	-	-	221	10	80



Reverse angle radiator valve, thermostatically or electronically controlled with manual adjustment knob. Connections for iron pipe.

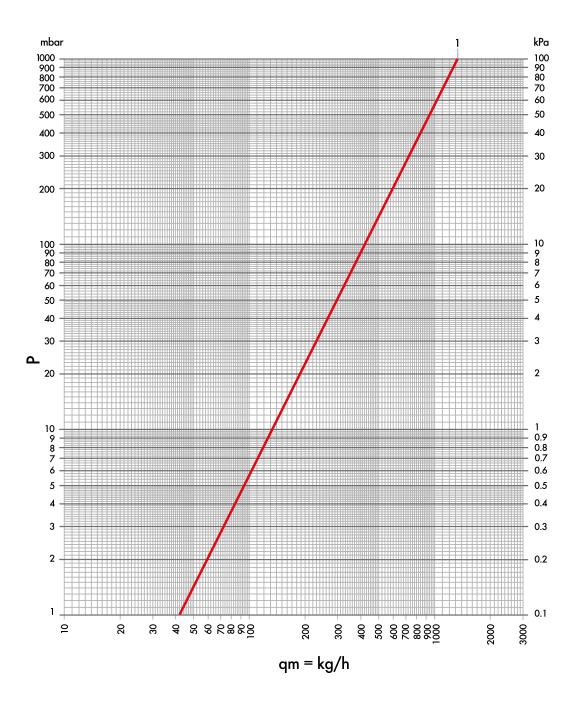
	Fittings	
TR 92	-	TP 90

CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	g	$\Rightarrow$	
13222100	DN 15 1/2	116	52	40	35	G 1/2	-	R 1/2	-	-	228	10	80



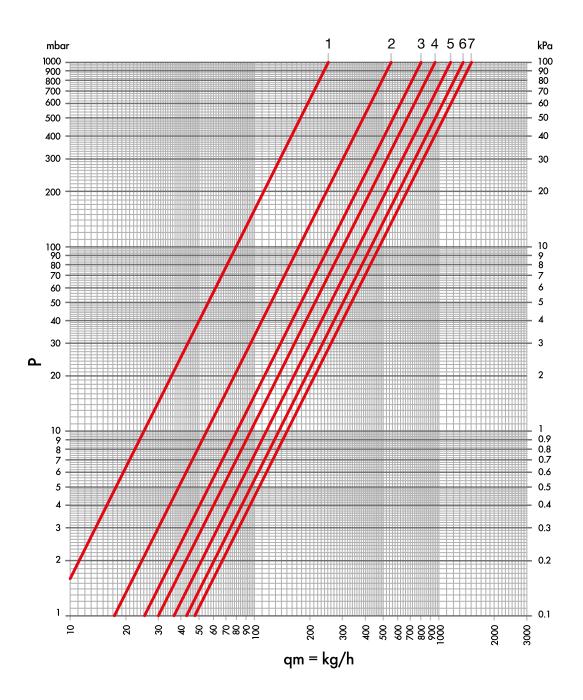






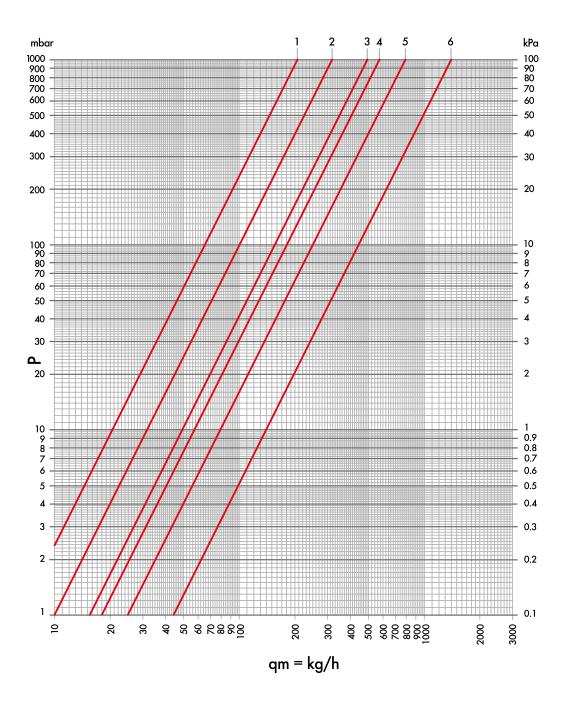
ITEM	Kv	POS
M 300	1.31	1





ITEM	TURNS N°	Kv	POS
	1	0,25	1
	1+1/2	0,55	2
	2	0,80	3
MD 331/A MS 331/A	2+1/2	0,95	4
	3	1,15	5
	3+1/2	1,35	6
	all open	1,50	7





ITEM	Kv	Kv ∆t 1 °C	Kv ∆t 2 °C	POS
	0.21	0.15	0.19	1
M 320 M 320/A	0.32	0.20	0.25	2
M 330 M 330/A	0.49	0.24	0.36	3
M 322 M 332	0.57	0.24	0.37	4
MD 321/A MS 331/A	0.79	0.24	0.40	5
	1.39	0.32	0.55	6



# 4-WAY DISTRIBUTORS FOR SINGLE/DOUBLE PIPE DISTRIBUTION SYSTEM



The tightness of distributors towards the outside is ensured by an o-ring and a flat gasket inside the plug. When in closed position, the tightness is granted by an o-ring. The

distributors are nickel plated. All distributors allow for flow adjustment by limiting the lift of the obturator.

#### **TECHNICAL DATA**







Max temperature

120 °C



Max pressure

10 bar



Max differential pressure 1 bar



Materials

CW617N UNI EN 12165:2016

Knob

white ABS

RAL 9016

#### **SYSTEM CONNECTIONS**



Copper pipe W 24x19 - TR 91



**Plastic pipe** W 24x19 - TP 95



**Multilayer pipe** W 24x19 - TP 97

RADIATOR CONNECTION



conical knurled thread G 1/2

CENTRE TO CENTRE DISTANCE



40 mm

#### **INSTALLATION WITH REVERSE VALVE BODY**

M distributors must be installed observing scrupulously the flow direction indicated by the arrow on the body.

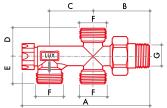
4-way distributors can have the connection to the system from floor or wall.





#### 4-WAY DISTRIBUTORS FOR SINGLE/DOUBLE PIPE DISTRIBUTION SYSTEM: **CONNECTION FOR COPPER AND PLASTIC PIPE W24X19**





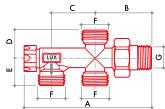
#### M 341

4-way distributor with floor connections. Maximum flow to radiator: 50% ring flow. Connections for copper and plastic pipe.



CODE	SIZE	Α	В	С	D	E	F	G	Н	L	g	$\Rightarrow$	
13142100	DN 15 1/2	118	52	40	25	25	W24x19	R 1/2	-	-	243	10	80





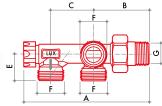
#### M 351

4-way distributor with floor connections. Maximum flow to radiator: 100% ring flow. Connections for copper and plastic pipe.



CODE	SIZE	А	В	С	D	E	F	G	Н	L	9	$\Rightarrow$	
13152100	DN 15 1/2	118	52	40	25	25	W24x19	R 1/2	-	-	244	10	80





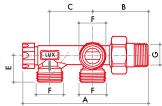
#### M 361

4-way distributor with wall connections. Maximum flow to radiator: 50% ring flow. Connections for copper and plastic pipe.



COD	E	SIZE	Α	В	С	D	Е	F	G	Н	L	ĝ	$\Rightarrow$	
1324210	JU	DN 15 1/2	118	52	40	-	25	W24x19	R 1/2	-	-	308	6	48





#### M 371

4-way distributor with wall connections. Maximum flow to radiator: 100% ring flow. Connections for copper and plastic pipe.



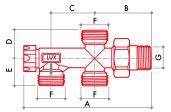
CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	g	$\Rightarrow$	
13252100	DN 15 1/2	118	52	40	-	25	W24x19	R 1/2	-	-	309	6	48





#### 4-WAY DISTRIBUTORS FOR SINGLE/DOUBLE PIPE DISTRIBUTION SYSTEM: **CONNECTION FOR COPPER AND PLASTIC PIPE G3/4 EUROKONUS**





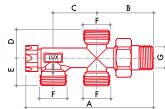
#### M 341/A

4-way distributor with floor connections. Maximum flow to radiator: 50% ring flow. Eurokonus connection.



CODE	SIZE	Α	В	С	D	E	F	G	Н	L	g	$\Rightarrow$	
13142721	DN 15 1/2	118	52	40	25	25	G 3/4 EK	R 1/2	-	-	245	10	80





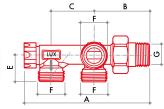
#### M 351/A

4-way distributor with floor connections. Maximum flow to radiator: 100% ring flow. Eurokonus connection.



CODE	SIZE	Α	В	С	D	E	F	G	Н	L	g	$\Rightarrow$	
13152721	DN 15 1/2	118	52	40	25	25	G 3/4 EK	R 1/2	-	-	256	10	80





## M 361/A

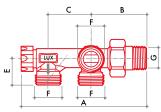
4-way distributor with wall connections. Maximum flow to radiator: 50% ring flow. Eurokonus connection.





CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	ĝ	$\Rightarrow$	
13242721	DN 15 1/2	118	52	40	-	25	G 3/4 EK		-	-	310	6	48





#### M 371/A

4-way distributor with wall connections. Maximum flow to radiator: 100% ring flow. Eurokonus connection.

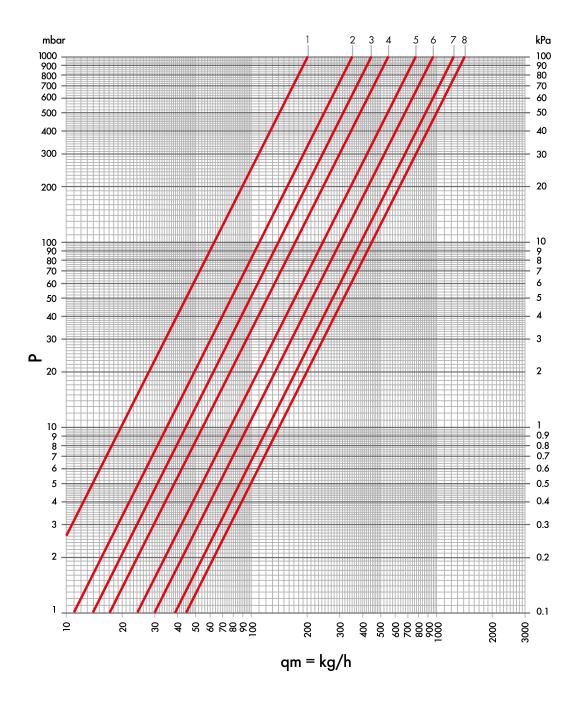
Fittings
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CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	g	$\Rightarrow$	
13252721	DN 15 1/2	118	52	40	-	25	G 3/4 EK	R 1/2	-	-	320	6	48

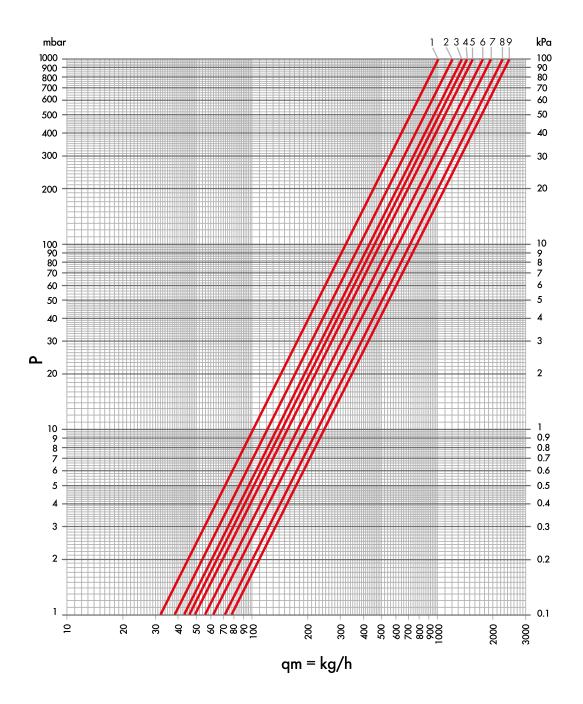


#### **DISTRIBUTORS FLOW RATE CHART**



ITEM	TURNS N°	Kv	POS
	1	0.20	1
	1+1/2	0.35	2
	2	0.43	3
M 351 M 351/A	2+1/2	0.55	4
M 371 M 371/A	3	0.78	5
	3+1/2	0.95	6
	4	1.22	7
	all open	1.41	8

#### DISTRIBUTORS FLOW RATE CHART



ITEM	TURNS N°	Kv	POS
	closed	1.00	1
	1	1.20	2
	1+1/2	1.35	3
M 341	2	1.43	4
M 341/A M 361	2+1/2	1.55	5
M 361/A	3	1.78	6
	3+1/2	1.95	7
	4	2.22	8
	all open	2.41	9



# **COAXIAL VALVES**



The coaxial valves have a headwork hat allows pre-regulation thanks to a shaped acetal ring. The thermostatic head allows the replacement of one of the sealing o-rings on the control rod without having to empty the system. The valves are produced with a nickel-plated finish.

The seal of the lockshield is ensured by an o-ring on the shutter and, if necessary, by a second o-ring between the body and the cap.

The seal in closing with the shutter is ensured by an o-ring and a metal conical seal. The lockshield are made with a nickel-plated finish. All lockshield can adjust the flow rate by limiting the shutter lift.

**SYSTEM CONNECTIONS** 

#### **TECHNICAL DATA**



DN 15



Max temperature

120 °C



Max pressure 10 bar



Max differential pressure (thermostatic valves)





Max differential pressure 1 bar





Copper pipe G 3/4 EK - TR 91/A



Plastic pipe G 3/4 EK - TP 98



Materials

CW617N UNI EN 12165:2016

Knob

white ABS

**RAL 9016** 







Multilayer pipe G 3/4 EK - TP 99

#### **RADIATOR** CONNECTION



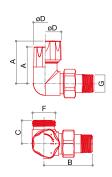
conical knurled thread G 1/2

#### **HOW TO SELECT THE CORRECT COAXIAL VALVES**



#### COAXIAL VALVES: CONNECTION FOR COPPER AND PLASTIC PIPE G3/4 EUROKONUS





#### MD 321/A

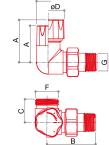
Coaxial right radiator valve, thermostatically or electronically controlled with protection cap. Eurokonus connections.

	rittings	'
TR 91/A	TP 98	TP 99

Eittings

CODE	SIZE	Α	В	С	D	E	F	G	Н	L	g g	$\Rightarrow$	
13272722	DN 15 1/2	49	56	27	37	-	G 3/4 EK	R 1/2	-	-	287	10	80





#### MS 331/A

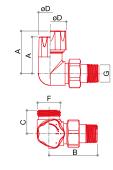
Coaxial left regulating lockshield. Eurokonus connections.

TR 91/A	TP 98	TP 99

Fittings

CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	g	$\Rightarrow$	
13252722	DN 15 1/2	42	56	27	30	-	G 3/4 EK	R 1/2	-	-	258	10	80





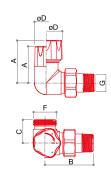
## MS 321/A

Coaxial left radiator valve, thermostatically or electronically controlled with protection cap. Eurokonus connections.

	Fittings	;
TR 91/A	TP 98	TP 99

CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	ĝ	$\Rightarrow$	
13292722	DN 15 1/2	49	56	27	37	-	G 3/4 EK	R 1/2	-	-	287	10	80





#### **MD 331/A**

Coaxial right regulating lockshield. Eurokonus connections.

	Fittings	
TR 91/A	TP 98	TP 99

CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	9	$\Rightarrow$	
13232722	DN 15 1/2	42	56	27	30	-	G 3/4 EK	R 1/2	-	-	258	10	80



## SINGLE/DOUBLE PIPE SYSTEM DISTRIBUTORS FOR HEATING BODY WITH BUILT-IN VALVE



The tightness of distributors is ensured by an o-ring and a flat gasket inside the plug. When in closed position, the tightness is granted by an o-ring and a conical metal collar.

The distributors are nickel plated. All distributors allow for flow adjustment by limiting the lift of the obturator.

#### **TECHNICAL DATA**



15

Max temperature

120 °C



Max pressure

10 bar



Max differential pressure 1 bar



Materials

CW617N UNI EN 12165:2016

Knob

white ABS **RAL 9016** 

#### SYSTEM CONNECTIONS



Copper pipe W 24x19 - TR 91 G 3/4 EK - TR 91/A



Plastic pipe W 24x19 - TP 95 G 3/4 EK - TP 98



Multilayer pipe W 24x19 - TP 97 G 3/4 EK - TP 99

#### **CENTRE DISTANCE**



50 mm

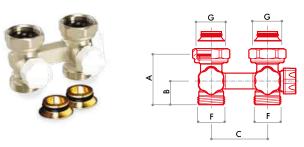
#### **RADIATOR CONNECTION**

M distributors are designed to be installed on heating bodies with G 3/4 eurokonus connections.

In case of G 1/2 F connections, it is possible to install a M 532 adaptor.



#### SINGLE/DOUBLE PIPE SYSTEM DISTRIBUTORS FOR HEATING BODY WITH BUILT-IN VALVE: CONNECTION FOR COPPER AND PLASTIC PIPE W24X19



#### M 171

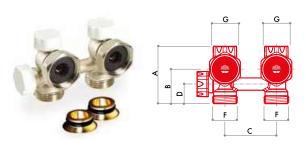
Single / double pipe distributor

- radiator connections 3/4 female swivel nut
- floor connections 24x19 for copper and plastic pipe.

Fittings	



CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	g	$\Rightarrow$	
13462100	-	45	21	50	-	-	W24x19	G 3/4	-	-	315	6	48



#### M 173

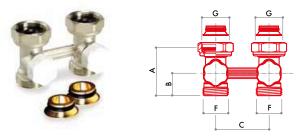
Single / double pipe distributor

- radiator connections 3/4 female swivel nut
- wall connection 24x19 for copper and plastic pipe.

Fittings	

TR 91	TP 95	TP 9

CODE	SIZE	Α	В	С	D	E	F	G	Н	L	9	$\Rightarrow$	
13462101	-	57	34	50	19	-	W24x19	G 3/4	-	-	310	6	48



#### M 175

Double pipe distributor

- radiator connections 3/4 female swivel nut
- floor connections 24x19 for copper and plastic pipe.

Fit	tin	gs

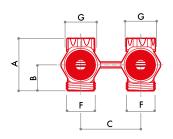




TR 91 TP 95 TP 97

CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	ĝ	$\Rightarrow$	
13472100	-	45	21	50	-	-	W24x19	G 3/4	-	-	245	6	48





#### M 177

Double pipe distributor

- radiator connections 3/4 female s wivel nut
- · wall connections 24x19 for copper and plastic pipe.

F	itti	ngs



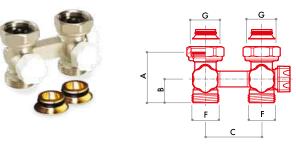


TR 91 TP 95 TP 97

CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	g	$\Rightarrow$	
13472101	-	44	22	50	-	-	W24x19	G 3/4	-	-	255	6	48



#### SINGLE/DOUBLE PIPE SYSTEM DISTRIBUTORS FOR HEATING BODY WITH BUILT-IN VALVE: **CONNECTION FOR COPPER AND PLASTIC PIPE G3/4 EUROKONUS**



#### M 172

Single / double pipe distributor

- radiator connections 3/4 female swivel nut
- floor connections eurokonus type for copper and plastic pipe.

	Fittings	
TR 91/A	TP 98	TP 99

CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	ĝ	$\Rightarrow$	
13462700	-	45	21	50	-	-	G 3/4 EK	G 3/4	-	-	325	6	48



#### M 174

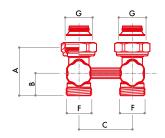
Single / double pipe distributor

- radiator connections 3/4 female s wivel nut
- wall connections eurokonus type for copper and plastic pipe.

	Fittings	
TR 91/A	TP 98	TP 99

CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	ĝ	$\Rightarrow$	
13462701	-	57	34	50	19	-	G 3/4 EK	G 3/4	-	-	320	6	48





#### M 176

Double pipe distributor

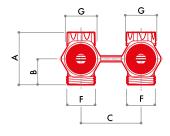
- radiator connections 3/4 female swivel nut
- floor connections eurokonus type for copper and plastic pipe.

Fittings	
160	

TR 91/A TP 98 TP 99

CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	ĝ	$\Rightarrow$	
13472700	-	45	21	50	-	-	G 3/4 EK	G 3/4	-	-	255	6	48





#### M 178

Double pipe distributor

- radiator connections 3/4 female swivel nut
- wall connections eurokonus type for copper and plastic pipe.



TR 91/A TP 98 TP 99

CODE	SIZE	Α	В	С	D	Е	F	G	Н	L	g	$\Rightarrow$	
13472701	-	44	22	50	-	-	G 3/4 EK	G 3/4	-	-	260	6	48





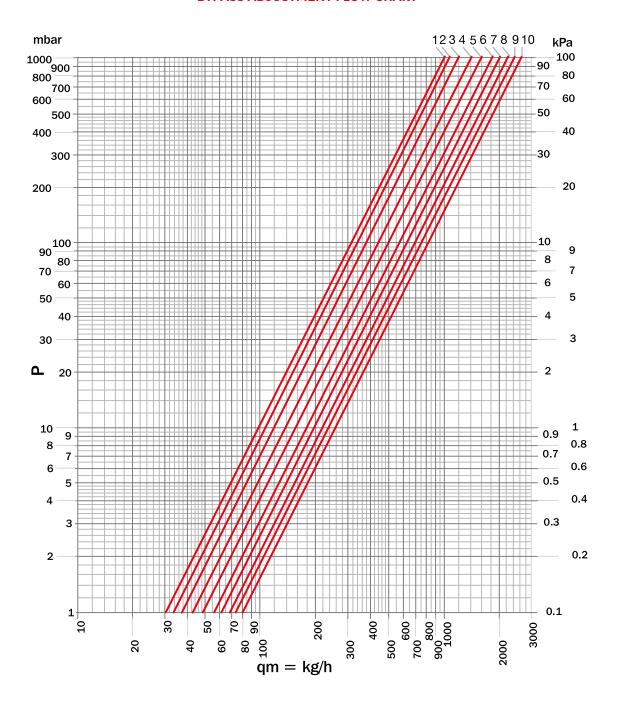






#### DISTRIBUTORS FLOW RATE CHART

#### **BYPASS ADJUSTMENT FLOW CHART**

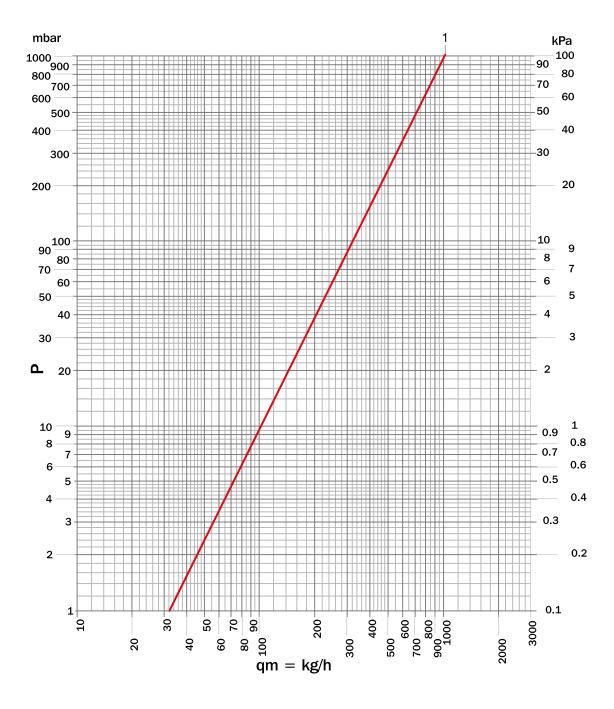


ITEM	TURNS N°	Kv bypass	Kvs	POS
	0	0	1,00	1
	1/4	0,13	1,13	2
	1/2	0,22	1,22	3
	3/4	0,43	1,43	4
M 171 M 172	1	0,65	1,65	5
M 173 M 174	1+1/4	0,80	1,80	6
	1+1/2	0,97	1,97	7
	2	1,20	2,20	8
	2+1/2	1,38	2,38	9
	3	1,60	2,60	10



#### **DISTRIBUTORS FLOW RATE CHART**

#### **ADJUSTMENT FLOW CHART**



ITEM	RA %	TURNS N°	Kvs	POS
M 175 M 176 M 177 M 178	100%	all open	1	1



#### CONDITION OF SALE

#### **ORDERS**

Contracts entered by agents or representative are not definitive until they are regularly accepted by supplier. The orders sent either through our Agents or directly, are accepted under the "General Sales Conditions" described in the present Price List terms, and will agree, without reservation, to the terms below.

#### **INCOTERMS**

The consignments are always Ex works unless differently agreed in the sales contract.

#### **PAYMENT TERMS**

The payment terms are those specified in the offers and the order confirmation and are binding.

In case of delay of payment with respect to the agreed due terms, the commercial interest shall be calculated. The delayed payment of previous supplies will authorize us to cancel all orders in progress. Agents and representative are not entitled to collect credits, unless clearly authorised in writing by the supplier.

#### CLAIMS

Claims on quantities will be accepted within 8 days from the date of receipt of goods. The supplier will not be responsible for missing or damaged packages, unless in the despatch note it is clearly written "accepted with reservation".

#### COURT

For any controversies the place of jurisdiction shall be: the Court of Low of Brescia.

#### **PRICES**

Prices indicated are those clearly agreed in the contract sales confirmed by our order confirmation.

#### **DELIVERY TERMS**

The articles part of this catalogue will be consigned within a term of 90 days from order acceptance. Any date inferior to this term is not to be considered accepted unless confirmed in order confirmation.

The delivery times are not binding for the supplier, who will not respond for any damages arising directly or indirectly from delivery delays, or from a total or partial interruption of the supply.

#### **PACKAGING**

The standard packaging is at suppliers charges.

The standard packaging does not include special out of size or particular. Where any special packaging is required this will be at customer's charges, unless previously agreed in writing in the contract sales.

#### **RETURN OF GOODS**

No goods will be accepted without our previous authorization.

#### MINIMUM ORDER VALUE

The supplier in addition to checking the feasibility will have the right to deliver orders with a minimum value of 500 Euro.

#### WARRANTY

The guarantee terms refer to article 3 and 5 of the 199/44/CE Directive. The guarantee is supported by an adequate insurance policy for the "Product Third Party Liability". The guarantee declines any responsibility whereas the installation and the test have not been correctly carried out. The wholesalers and the retailers are compelled to illustrate to their customers and installers all the useful care for a correct installation of our materials.

#### **CATALOGUE VALIDY**

Illustrations, data and references published in this issue are not binding on the supplier who reserves the right to make reasonable changes, both technical and commercial, at his discretion at any time, still without lowering the design performance of the goods.