Tender specification: (examples)

Oventrop connection fittings made of nickel plated brass, for the connection of radiators with integrated distributor G ¾ male thread according to DIN EN 16313 (cone “Euro”).
ZBU preset isolating fitting for two pipe systems for filling and draining
G ¾ collar nut x G ¾ male thread

Oventrop connection fittings male of nickel plated brass, for the connection of radiators with integrated distributor G ½ female thread.
ZBU preset isolating fitting for two pipe systems for filling and draining
G ½ male thread x G ¾ male thread

Technical data:

Operating temperature t_S:	2 °C up to 120 °C (for short periods up to 130 °C)
Max. operating pressure p_S:	10 bar
Fluid:	Water or suitable ethylene/ propylene glycol water mixtures according to VDI 2035/ÖNORM 5195 (max. glycol proportion 50 %, ph value 6.5-10). Not suitable for steam, oily and aggressive fluids.

Function:

The Oventrop fittings “Multiflex” are designed for the connection of radiators with integrated distributor.

The extensive programme fulfils the following functions:

– Connecting
– Isolating
– One pipe operation
– Draining
– Filling
– Presetting
– Re-directing
– Bridging

Application:

The Oventrop fittings “Multiflex” for radiators with integrated distributor are suitable for use in two or one pipe central heating and cooling systems with closed circuits for operation with non-aggressive, harmless fluids.

For use of radiators with integrated distributor in one pipe systems, special ZBU fittings (two pipe block, convertible) are available. In addition, Oventrop offers inversion fittings to achieve the correct direction of flow if the supply and return pipe were mixed up and bridging fittings to fix the pipework and to bridge over the supply and return pipe in case of subsequent installation of radiators.

“Multiflex”

“Multiflex F” - soft sealing

The connection of the fitting to the radiator is soft sealing.

Advantages of the “Multiflex F” fittings:

– all connection problems of radiators with integrated distributor can be solved
– easy to use
– suitable for two or one pipe systems (ZBU)
– increased leakage proofing due to soft sealing connection
– exact setting of the radiator shares via the bypass screw (ZBU) in lengthwise direction
– excellent flow rates of the ZBU fittings when used with Oventrop thermostats (see chart)

Fittings “Multiflex F” - soft sealing for two pipe systems

Fittings made of nickel plated brass
for radiators with integrated distributor

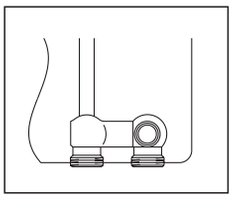
ZB fittings (ZB = two pipe block)

The ZB fittings (two pipe block) are used on radiators with two pipe distributors.

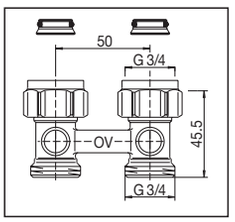
Distance between pipe centres: 50 mm

G ¾ male thread (distributor)

The connection of the fitting to the radiator is soft sealing. Soft sealing inserts are supplied with each fitting.

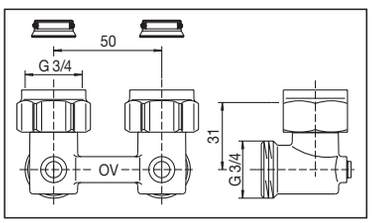


For radiators with integrated distributor G ¾ male thread according to DIN EN 16313 (cone “Euro”)



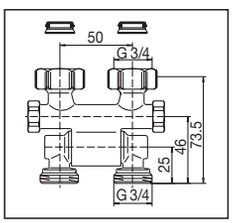
ZB isolating fitting
G ¾ c/nut x G ¾ male

Item no. 1015813



ZB angle pattern isolating fitting
G ¾ c/nut x G ¾ male

Item no. 1015814



ZB isolating fitting, pivoting
G ¾ c/nut x G ¾ male

Item no. 1015711

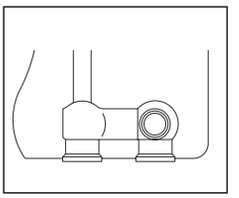
Design cover, white

for ZB isolating fittings and angle pattern isolating fittings item no. 1015813/14/83/84

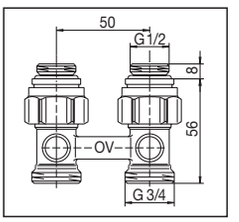
Item no. 1015896

G ½ female thread (distributor)

The connection of the fitting to the radiator is soft sealing. Soft sealing nipples are supplied with each fitting.

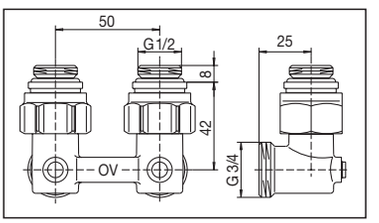


For radiators with integrated distributor G ½ female thread



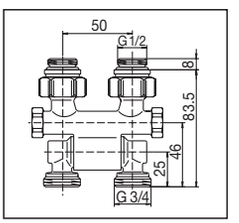
ZB isolating fitting
G ½ male x G ¾ male

Item no. 1015883



ZB angle pattern isolating fitting
G ½ male x G ¾ male

Item no. 1015884



ZB isolating fitting, pivoting
G ½ male x G ¾ male

Item no. 1015781

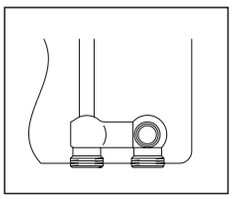
Fittings “Multiflex F” - soft sealing
for two pipe systems or heating systems in one pipe operation

Fittings made of nickel plated brass
for radiators with integrated distributor

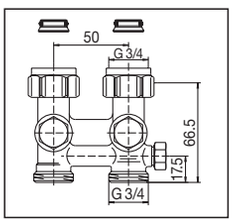
ZBU fittings (ZBU = two pipe block, convertible)
The ZBU fittings (two pipe block, convertible) can be used in both, two pipe systems (as delivered) or in systems in one pipe operation.
When used in one pipe systems, the bypass screw has to be set according to the installation instructions supplied with the fittings. CEW fitting as ZBU but preset to one pipe operation with a radiator share of 35 %.
Distance between pipe centres: 50 mm

G ¾ male thread (distributor)

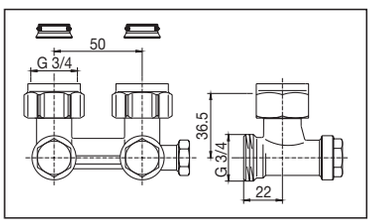
The connection of the fitting to the radiator is soft sealing. Soft sealing inserts are supplied with each fitting.



For radiators with integrated distributor G ¾ male thread according to DIN EN 16313 (cone “Euro”)



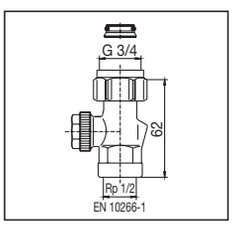
ZBU preset isolating fitting for filling and draining
G ¾ c/nut x G ¾ male
Item no. 1015943



ZBU angle pattern preset isolating fitting for filling and draining
G ¾ c/nut x G ¾ male
Item no. 1015944

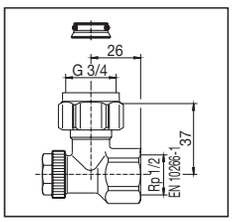
Single fittings

The single fittings are used in radiators with two pipe distributors.



Isolating fitting “Combi 3”**
G ¾ c/nut x Rp ½ female
Item no. 101 61 66

G ¾ c/nut x G ¾ male
Item no. 1016168

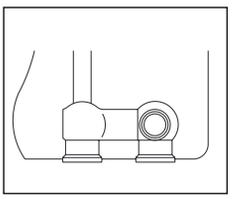


Angle pattern isolating fitting “Combi 3”**
G ¾ c/nut x Rp ½ female
Item no. 1016567

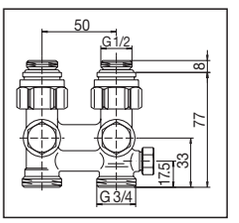
G ¾ c/nut x G ¾ male
Item no. 1016569

G ½ female thread (distributor)

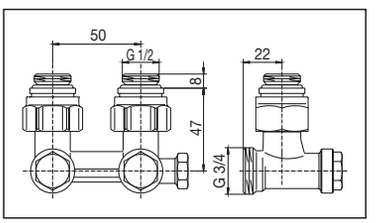
The connection of the fitting to the radiator is soft sealing. Soft sealing nipples are supplied with each fitting.



For radiators with integrated distributor G ½ female thread

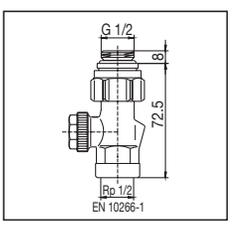


ZBU/CEW preset isolating fitting for filling and draining
G ½ male x G ¾ male
Item no. 1015993
Item no. 1015933*



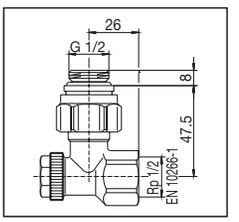
ZBU/CEW angle pattern preset isolating fitting for filling and draining
G ½ male x G ¾ male
Item no. 1015994
Item no. 1015934*

* preset to one pipe operation



Isolating fitting “Combi 3”**
G ½ male x Rp ½ female
Item no. 101 61 75

G ½ male x G ¾ male
Item no. 1016177



Angle pattern isolating fitting “Combi 3”**
G ½ male x Rp ½ female
Item no. 1016575

G ½ male x G ¾ male
Item no. 1016577

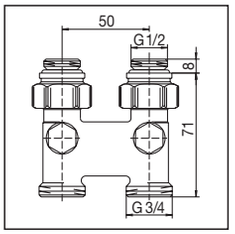
Fitting with Rp ½ female thread are not suitable for compression fittings (only for threaded pipes).
The Oventrop compression fittings are to be used (see Oventrop catalogue.

**** ”Combi 3” for presetting, isolating, filling and draining.**

Fittings
Brass

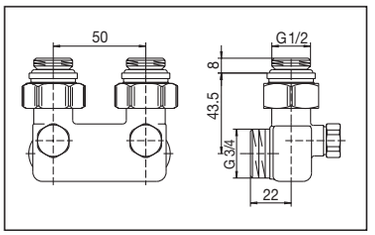
Inversion fitting, nickel plated

For reversed supply and return pipe.



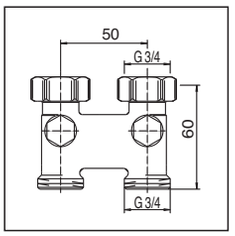
with isolating facility
distance between pipe centres 50 mm
G ½ male x G ¾ male

Item no. 1016363



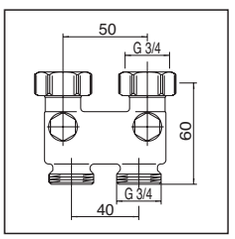
angle pattern,
with isolating facility
distance between pipe centres 50 mm
G ½ male x G ¾ male

Item no. 1016463



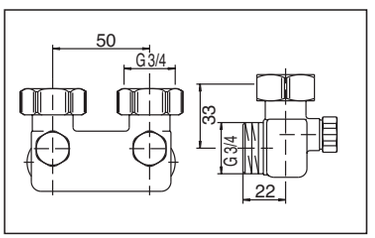
with isolating facility
distance between pipe centres 50 mm
G ¾ c/nut x G ¾ male

Item no. 1016362



with isolating facility
upper distance between pipe centres 50 mm,
lower distance between pipe centres 40 mm
G ¾ c/nut x G ¾ male

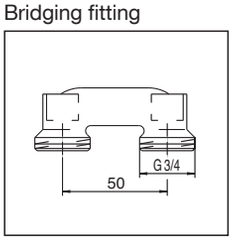
Item no. 1016372



angle pattern,
with isolating facility
distance between pipe centres 50 mm
G ¾ c/nut x G ¾ male

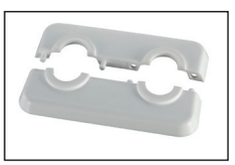
Item no. 1016462

Bridging fitting



For bridging-over the supply and the return pipe in case of subsequent installation of radiators.
Distance between pipe centres 50 mm

Item no. 1016452



Plastic rosette cover, white
flat, distance between pipe centres 50 mm

Perforation	**Item no.:**
12 mm	1016671
14 mm	1016672
15 mm	1016673
16 mm	1016674
18 mm	1016675

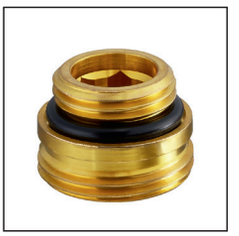
for pipe dimensions 10, 12, 15, 16, 18, 20 mm

Distance between pipe centres 50 mm
Item no. 1016662

Connection fittings
Brass

Distance piece
Set = 2 pieces
G ¾ female x G ¾ male
Effective length: 15.5 mm

Item no. 1681650



Nipple, unplated
Port G ½: self sealing
Port G ¾: flat sealing
G ½ male x G ¾ male

Item no. 1028252

Insert
Set = 2 pieces
for cone according to DIN EN 16313 (cone “Euro”)

Item no. 1661100

Nipple, nickel plated
Port G ½: self sealing
Port G ¾: with tapered sealing according to DIN EN 16313 (cone “Euro”)
G ½ male x G ¾ male

Item no. 1028161

Double nipple, nickel plated
G ¾ with tapered sealing according to DIN EN 16313 (cone “Euro”)

G ¾ male x G ¾ male

Item no. 1028263

Connection systems and accessories

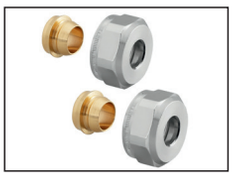
Compression fittings for G ¾ male thread according to DIN EN 16313(cone “Euro”)

“Ofix CEP”-Snap & Seal
2-fold for copper pipes according to DIN EN 1057, precision steel pipes according to DIN EN 10305-1/2 and stainless steel pipes
Collar nut nickel plated, with double compression ring function, one-piece pre-assembled, soft sealing, max. 95 °C

10 mm	1016840
12 mm	1016841
14 mm	1016842
15 mm	1016843
16 mm	1016844
18 mm	1016845

Operating temperature t_S: 2 °C - 95 °C
Max. operating pressure p_S: 10 bar

Attention: When installing copper pipes with a wall thickness of ≤ 1 mm, it is necessary to use reinforcing sleeves for the additional stabilisation of the pipe. Should the wall thickness exceed 1 mm, please contact the pipe manufacturer. Reinforcing sleeves for a wall thickness of 1 mm can be found in our catalogue.
Exception:
Reinforcing sleeves are not required for soft sealing compression fittings.
Note: The pipes are not held by the soft sealing fitting, they have to be fixed additionally.



“Ofix CEP”
2-fold for copper pipes according to DIN EN 1057
Collar nut nickel plated, metal to metal sealing

10 mm	1016860
12 mm	1016861
14 mm	1016862
15 mm	1016863
16 mm	1016864
18 mm	1016865

Operating temperature t_S: 2°C - 120°C
Max. operating pressure p_S: 10 bar

“Ofix K”
2-fold for plastic pipes according to DIN 4726, PE-X according to DIN 16892/16893, PB according to DIN 16968, PP according to DIN 8078 A1
Collar nut nickel plated, metal to metal sealing plus O-Ring

12 x 1.1 mm	1016883
12 x 2 mm	1016870
14 x 2 mm	1016873
15 x 2.5 mm	1016885
16 x 1.5 mm	1016882
16 x 2 mm	1016874
17 x 2 mm	1016876
18 x 2 mm	1016877
20 x 2 mm	1016879

The permissible operating pressures and operating temperatures depend on the application classes of the respective standards of the plastic pipework systems (e.g. PE-X, DIN EN ISO 15875).

“Cofit S”
Universal application for composition pipe “Copipe” and, provided similar preparation us used, for plastic pipes (PE-X pipes) 2-fold, metal to metal sealing plus O-ring, outlet made of bronze, compression ring and collar nut made of brass, collar nut nickel plated

14 x 2.0 mm x G ¾ c/nut	1507934
16 x 2.0 mm x G ¾ c/nut	1507935
17 x 2.0 mm x G ¾ c/nut	1507937
18 x 2.0 mm x G ¾ c/nut	1507938
20 x 2.0 mm x G ¾ c/nut	1507939
20 x 2.5 mm x G ¾ c/nut	1507940

The permissible operating pressures and operating temperatures depend on the application classes of the respective standards of the plastic pipework systems (e.g. PE-X, DIN EN ISO 15875).

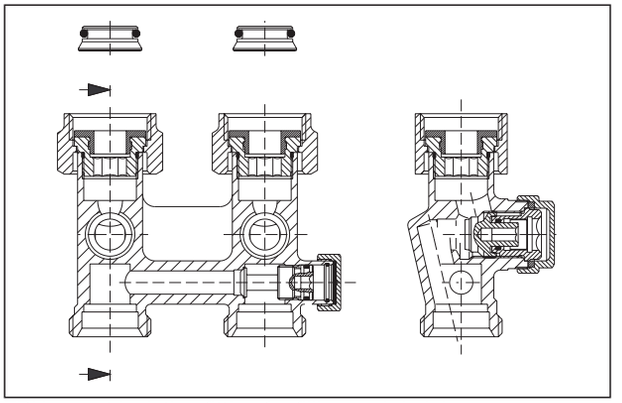
Alternatively, the compression fittings for connection to G ¾ male thread according to DIN EN 16313 (cone “Euro”) of other manufacturers may also be used - except for composition pipe “Copipe”.

Service tool
with bag 1090551

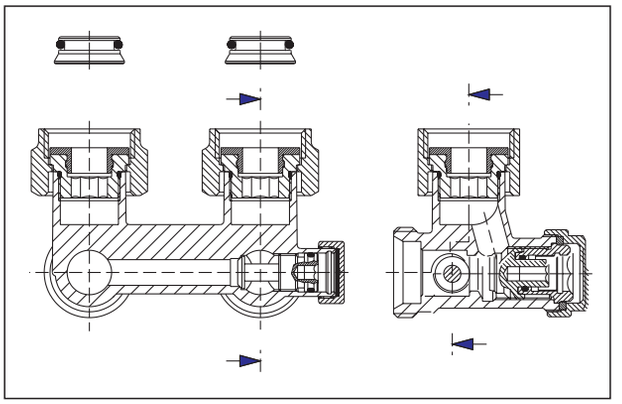
For filling and draining of the radiators via the isolating fittings:
1016241, 1016242, 1016341/42, 1016291, 1016292, 1016391/92, 1015993/94, 1015933/34, 1015943/44, 1016175/77, 1016575/77, 1016166/68, 1016567/69

Fittings “Multiflex F”
soft sealing

Sectional view of the two pipe fittings ZBU and CEW:



ZBU preset isolating fitting for filling and draining
Item no. 1015943



ZBU angle pattern preset isolating fitting for filling and draining
Item no. 1015944

The bypass stem of the CEW fitting is opened according to the radiator share (35 %).

Operating instructions:

For ZBU/CEW preset isolating fittings for filling and draining
Item no. 10159 43/44 ZBU
10159 93/94 ZBU
101 59 33/34 CEW

For single fittings
Item no. 10161 66/68
10165 67/69
10161 75/77
10165 75/77

1 Isolating:

1.1 Unscrew the protection caps (spanner size 19) from the isolating facilities.

1.2 Close both valve discs by turning a 4 mm spanner clockwise.

2 Draining:

2.1 Isolate the fitting as described under point 1.

2.2 Loosen the insert of the return pipe connection by turning a 10 mm spanner anticlockwise (max. ¼ thread).

2.3 Fit the service tool to the return pipe connection of the fitting and connect a hose. Firmly tighten the compression nut (spanner size 19) (max. 10 Nm).

2.4 Fit the 10 mm spanner to the service tool and drain the radiator by turning anticlockwise.

The venting screw at the radiator must be in the open position.

3 Filling:

3.1 Via the service tool:

3.1.1 If the radiator was drained via the service tool, no modifications are required. The radiator can now be filled via the connected hose. (Now the radiator has to be bled.)

3.1.2 With the filling operation completed, fit the 10 mm spanner to the service tool again and close the insert by turning clockwise.

3.1.3 Remove the service tool from the fitting and tighten the insert with the 10 mm spanner (max. 10 Nm).

3.1.4 Open the valve discs by turning a 4 mm spanner anticlockwise until stop. Bleed the radiator.

3.1.5 Refit the caps.

3.2 Via the heating system:

3.2.1 Close the fitting by turning the insert clockwise with a 10 mm spanner (max. 10 Nm).

3.2.2 Open the valve discs by turning a 4 mm spanner anticlockwise until stop. Bleed the radiator.

3.2.3 Refit the caps.

Filling and draining of the radiator with the help of the service tool, item no. 1090551.

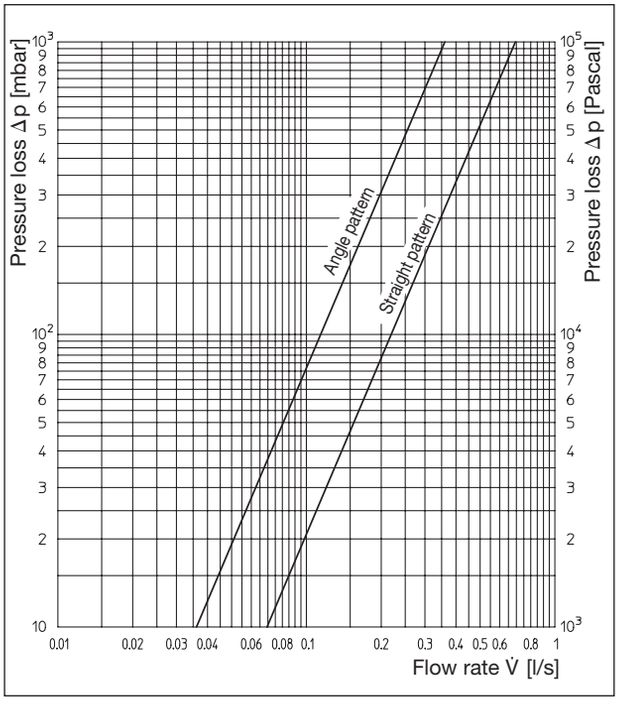
4 Presetting (on the supply or the return side):

4.1 Unscrew the protection cap (spanner size 19).

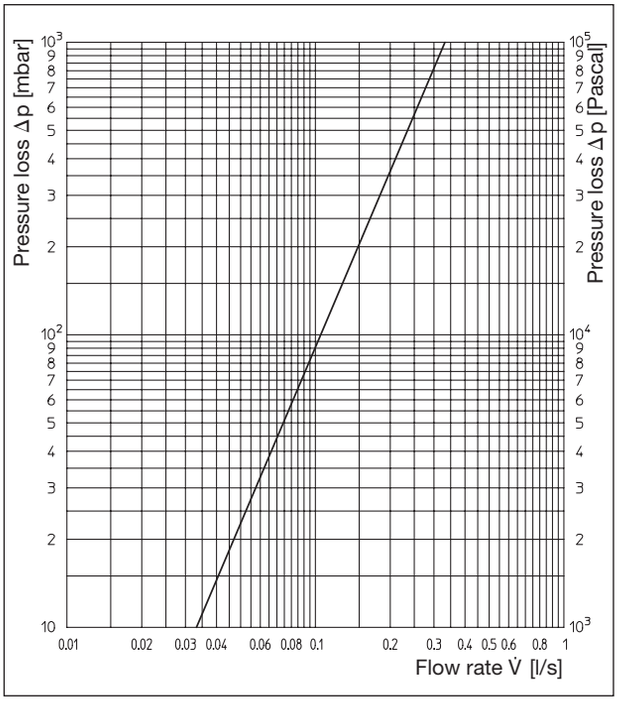
4.2 Close the valve disc by turning a 4 mm spanner clockwise.

4.3 Then preset the valve disc by turning the 4 mm spanner anticlockwise according to the number of turns selected from the flow chart for two pipe operation.

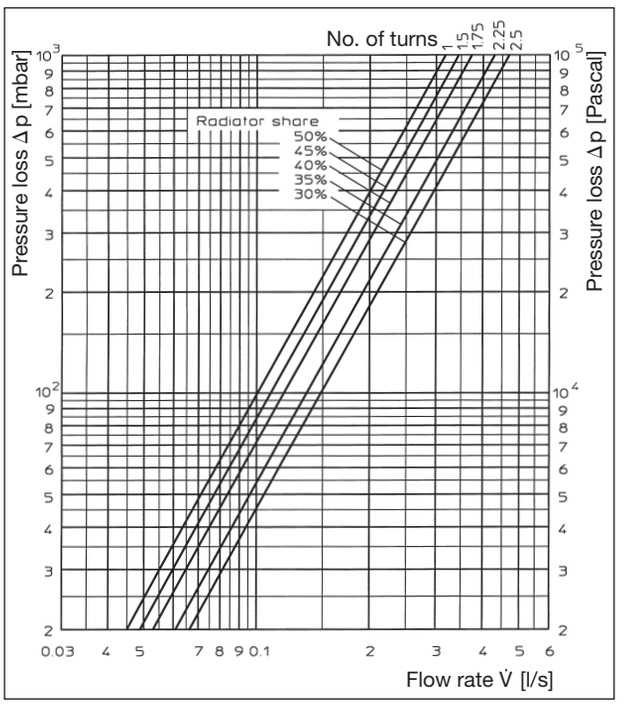
Fittings “Multiflex F”
soft sealing



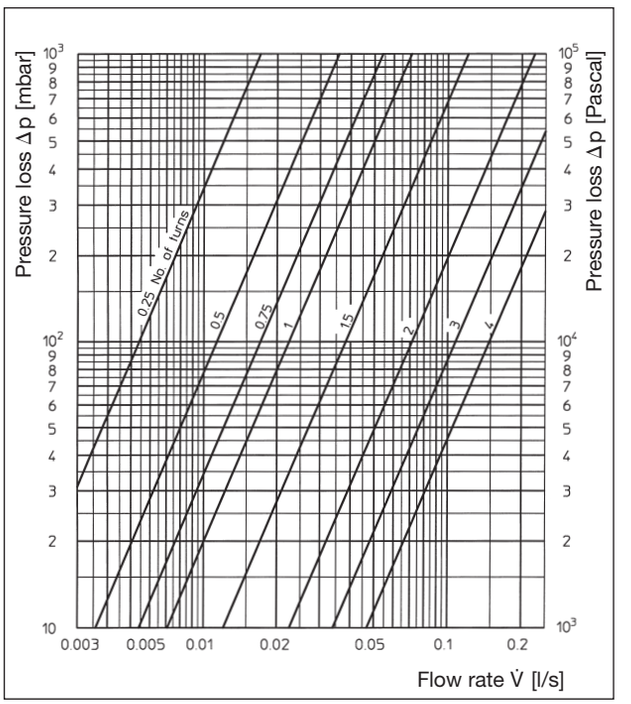
ZB fittings
Item no. 1015813/14
1015883/84



ZB fittings, pivoting
Item no. 1015711/81



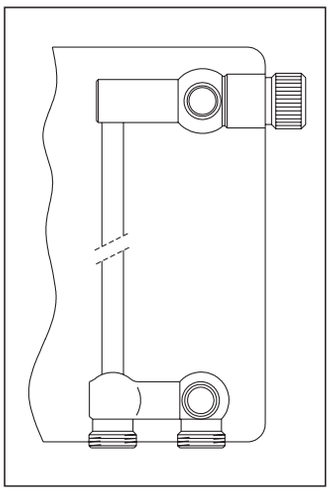
ZBU and CEW fittings
in one pipe operation



ZBU fittings and single fittings
in two pipe operation

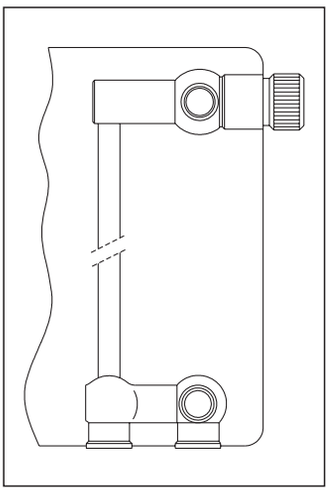
Presetting	0.25	0.5	0.75	1	1,5	2	3	4
k_V value	0.060	0.126	0.190	0.250	0.420	0.819	1.236	1.700

Fittings “Multiflex”



Radiator manufacturers:
Baufa
Brötje
Brugman
Buderus
De’Longhi
Kermi
Radel
Ribe
Vogel + Noot
(subject to modifications)

Radiator with integrated distributor
G ¾ male thread, distance between pipe centres 50 mm



Radiator manufacturers:
Agis, Alarko, Arbonia, Baykan, Bemm, Biasi, Borer, Bremo, Caradon-Stelrad, Celikpan, Concept, Cöskünöz, DEF, Delta, Demrad, DiaNorm, Dia-therm, Dunaferr, DURA, Ferroli, HM-Galant, Henrad, Hoval, Hudevad, IMAS, Itemar, Jugoterm, Korado, Manaut, Quinn, Purmo, Radson, Runtal, Schäfer, Starpan,Stelrad, Superia, TermoTeknik, Thor, US-Steel, Vasco, VEHA, Zehnder, Zenith.
(Subject to modifications).

Radiator with integrated distributor
G ½ female thread, distance between pipe centres 50 mm

Subject to technical modifications.

Product range 1
ti 107-EN/10/MW
Edition 2020