duro system

We create **heat**

- **Manifolds**
- **Mixing Systems**
- **Installation Cabinets**

Stainless steel manifolds

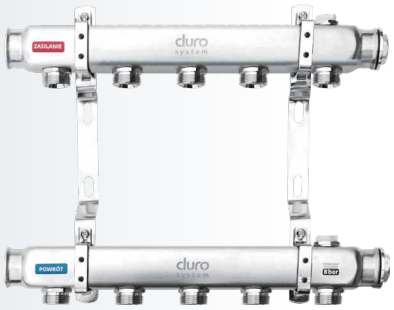
Advantages

- Manifolds made of brushed stainless steel 1.4301 (304)
- 3/4" F connectors with eurocone
- Manifold holders with anti-vibration pads
- Manifolds equipped with a manual air-vent
- Tightness tested 100%
- Resistant to glycol concentration up to 50%
- National Technical Assessment of ITB-KOT 2019/1119 edition 2

In addition the floor heating manifolds are equipped with:

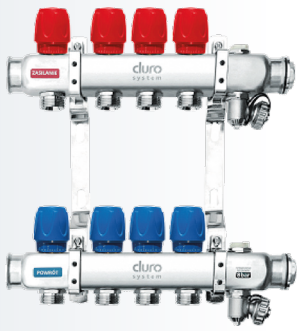
- Rotating drain valves at each manifold
- Flow meters 0÷3 l/min., allowing easy flow regulation in heating circuits
- Control valves with a M30x1,5 connection (for electric actuators) on return manifolds

Central heating manifolds



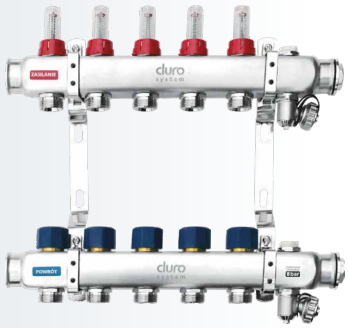
Index	Number of sections	Width (mm)	Height (mm)	Depth (mm)
D/S-RN-CO-2	2	154	290	100
D/S-RN-CO-3	3	204	290	100
D/S-RN-CO-4	4	254	290	100
D/S-RN-CO-5	5	304	290	100
D/S-RN-CO-6	6	354	290	100
D/S-RN-CO-7	7	404	290	100
D/S-RN-CO-8	8	454	290	100
D/S-RN-CO-9	9	504	290	100
D/S-RN-CO-10	10	554	290	100
D/S-RN-CO-11	11	604	290	100
D/S-RN-CO-12	12	654	290	100

Manifolds with control valves



Index	Number of sections	Width (mm)	Height (mm)	Depth (mm)
D/S-RN-ZR-2	2	204	321	100
D/S-RN-ZR-3	3	254	321	100
D/S-RN-ZR-4	4	304	321	100
D/S-RN-ZR-5	5	354	321	100
D/S-RN-ZR-6	6	404	321	100
D/S-RN-ZR-7	7	454	321	100
D/S-RN-ZR-8	8	504	321	100
D/S-RN-ZR-9	9	554	321	100
D/S-RN-ZR-10	10	604	321	100
D/S-RN-ZR-11	11	654	321	100
D/S-RN-ZR-12	12	704	321	100

Floor heating manifolds



Index	Number of sections	Width (mm)	Height (mm)	Depth (mm)
D/S-RN-OP-2	2	204	321	100
D/S-RN-OP-3	3	254	321	100
D/S-RN-OP-4	4	304	321	100
D/S-RN-OP-5	5	354	321	100
D/S-RN-OP-6	6	404	321	100
D/S-RN-OP-7	7	454	321	100
D/S-RN-OP-8	8	504	321	100
D/S-RN-OP-9	9	554	321	100
D/S-RN-OP-10	10	604	321	100
D/S-RN-OP-11	11	654	321	100
D/S-RN-OP-12	12	704	321	100
D/S-RN-OP-13	13	754	350	100
D/S-RN-OP-14	14	804	350	100
D/S-RN-OP-15	15	854	350	100
D/S-RN-OP-16	16	904	350	100

Dual-purpose mixing systems

for floor heating and central heating manifolds

The Duro System dual-function mixing system is designed for installation in water heating systems.

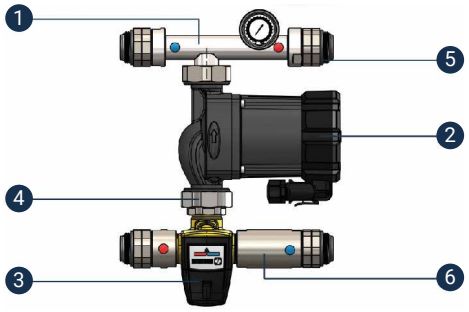
The design of the system allows the connection of the power supply elements of the surface heating system in one unit and radiator. The dual-function mixer combines two types of installation: high-temperature installation (e.g. radiator) and surface heating installation, where it is required to reduce the temperature of the heating medium to a set level (in the range of 20÷43°C). The mixing system can be used with manifolds with a 210 mm spacing of the supply and return manifold beams. It has the National Technical Assessment ITB-KOT 2019/1119 edition 2.

Technical data:

- Maximum static pressure: **10 bar**
- Maximum operating temperature: **90°C**
- Thermostatic valve temperature adjustment range: **20÷43°C**
- Adjustment accuracy: **± 4°C**
- Kvs of thermostatic valve: **3,2 m³/h**
- Maximum number of surface heating circuits*: **10 circuits**
- Maximum number of radiators*: **10 radiators**
- Acceptable media: **non-aggressive water according to PN-C-04607:1993 and glycol concentration up to 50%**

* The number of surface heating circuits and radiators should be selected at the stage of the installation design, taking into account the hydraulic parameters of the installation, the system mixing power source and the power of the power source.

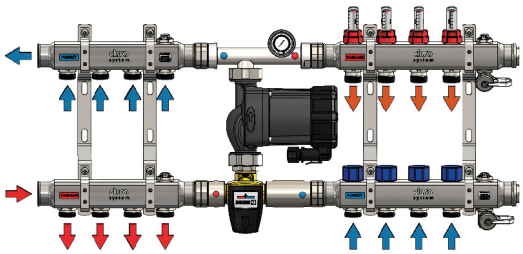
Construction



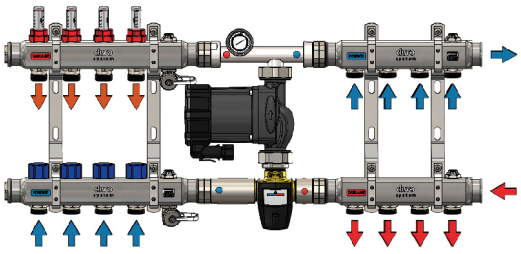
1. **Upper collector**
2. **Electronic pump (optional)**
3. **Thermostatic valve**
4. **Pump half-union 1" x 1 1/2"**
5. **Double-sided swivel connector**
6. **lower collector**

Flow diagram:

left side supply



right side supply



Available variants:

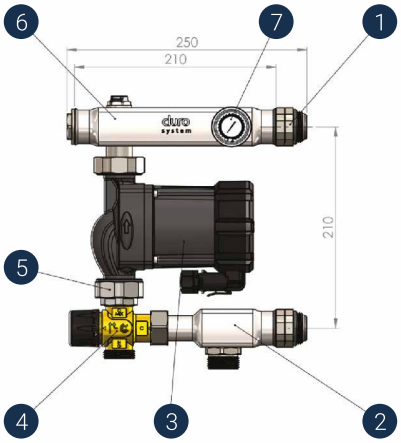
D/S-UMND-B/PUMPS
Dual-purpose mixing system without a pump, with three-way thermostatic mixing valve ESBE 552.

D/S-UMND-MERC
Dual-purpose mixing system with electronic pump Mercurio 25/60 130 mm, with three-way thermostatic mixing valve ESBE 552.

Mixing systems
for floor heating manifolds

The mixing system is intended for assembly in heating installations, where a reduction of the heating medium temperature is required to set appropriate level (in the range of 23÷43°C), e.g. for floor heating or radiators. A mixing system may be used with manifolds spacing between the upper and lower collector, equal to 210 mm and with the number of 2 to 16 heating circuits. It has the National Technical Assessment ITB-KOT 2019/1119 edition 2.

Construction



1. **Double sided connector**
2. **Lower collector**
3. **Electronic pump (optional)**
4. **Three-way thermostatic mixing valve Calido**
5. **Half union 1" x 1 1/2"**
6. **Upper collector**
7. **Thermometer**

Construction:

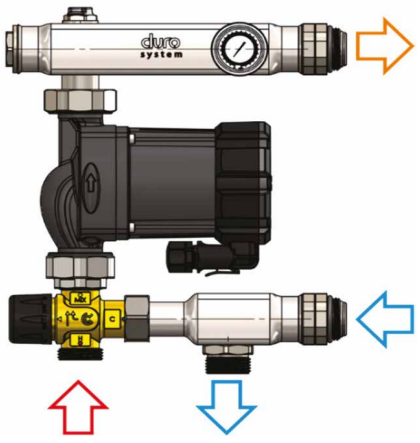
- Maximum static pressure: **10 bar**
- Maximum working temperature: **90°C**
- Thermostatic valve temperature adjustment range: **23÷43°C**
- Regulation accuracy of the thermostatic valve: **2°C**
- Acceptable media: **non-aggressive water in accordance to**
- **PN-EN 12952-12:2006 and glycol concentration up to 50%**
- Kvs: **1,6 m³h** - maximum heating area 130 m²
- Kvs: **3,2 m³h** - maximum heating area 250 m²

Available variants:

With three-way thermostatic valve Kvs **1,6 m³/h (heating area up to 130 m²)**	
D/S-UMN-A-B/POMPY	no pump
D/S-UMN-A-MERC 25/60	with electronic pump CIRCULA MERCURIO 25/60-130 mm (plug + cable)
D/S-UMN-A-TITAN25/60	with electronic pump CIRCULA TITANIO 25/60-130 mm (with power cord)
D/S-UMN-A-HELIO25/60	with electronic pump CIRCULA HELIO 25/60-130 mm (with plug)

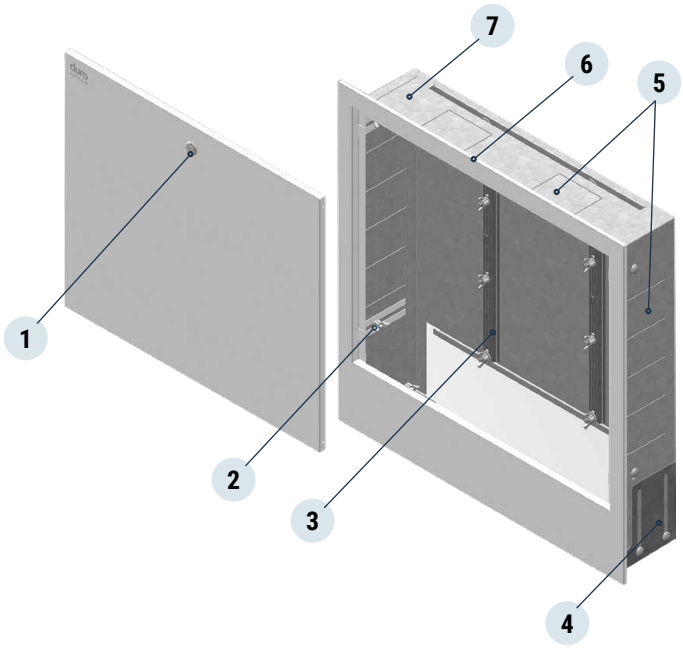
With three-way thermostatic valve Kvs **3,2 m³/h (heating area up to 250 m²)**	
D/S-UMN-B-B/POMPY	no pump
D/S-UMN-B-MERC 25/60	with electronic pump CIRCULA MERCURIO 25/60-130 mm (plug + cable)
D/S-UMN-B-TITAN25/60	with electronic pump CIRCULA TITANIO 25/60-130 mm (with power cord)
D/S-UMN-B-HELIO25/60	with electronic pump CIRCULA HELIO 25/60-130 mm (with plug)

Flow diagram:



Concealed cabinets

- Designed for manifold mounting in previously prepared wall niches.
- They provide an aesthetic appearance and easy access to installed equipment for service purposes.
- Cabinet's body and stand made of galvanized metal sheet, which guarantees durable protection against corrosion.
- Construction of bodies made of one metal sheet, bent and connected with technological welds for appropriate rigidity.
- Possibility of adjusting the height of the cabinet in the range of 530-630 mm.
- Possibility of adjusting the depth of the cabinet in the range of 125-170 mm.



Construction

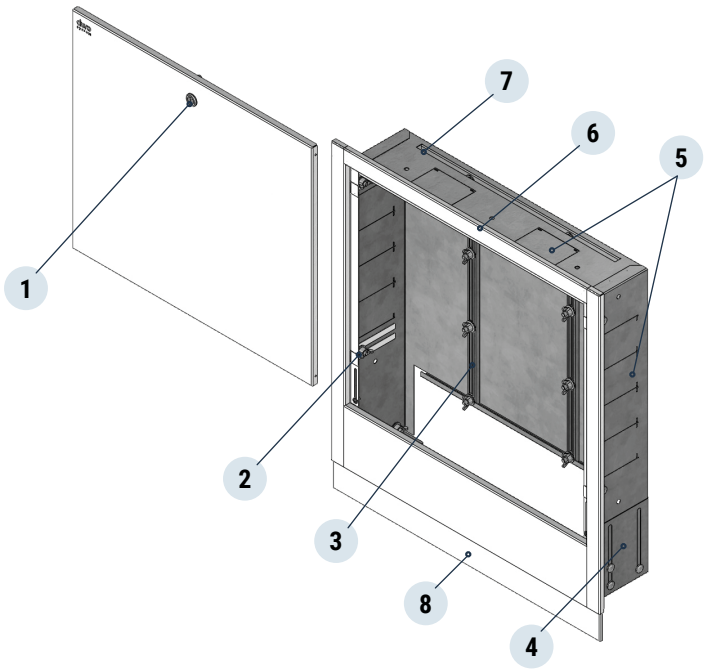
No.	Description
1.	Coin operated lock
2.	Lock screws with wing nuts
3.	Galvanized guide rails for manifold mounting
4.	Adjustable stand
5.	Break-out mounting hole blinds
6.	Frame with depth adjustment
7.	Galvanized body made of one metal sheet

Technical data

Name	Number of sections + shut-off fittings	Number of sections + mixing system	Width [mm]	Height [mm]	Depth [mm]
D/S-SIP-01	4	2	490	530-630	125-170
D/S-SIP-02	6	4	590	530-630	125-170
D/S-SIP-03	8	6	690	530-630	125-170
D/S-SIP-04	10	8	790	530-630	125-170
D/S-SIP-05	14	12	990	530-630	125-170
D/S-SIP-06	16	14	1110	530-630	125-170

Concealed cabinets
with a sliding cover

- Designed for manifold mounting in previously prepared wall niches.
- They provide an aesthetic appearance and easy access to installed equipment for service purposes.
- Cabinet's body and stand made of galvanized metal sheet, which guarantees durable protection against corrosion.
- Construction of bodies made of one metal sheet, bent and connected with technological welds for appropriate rigidity.
- Possibility of adjusting the height of the cabinet in the range of 530-630 mm.
- Possibility of adjusting the depth of the cabinet in the range of 125-170 mm.
- Equipped with a cover that slides out from the bottom, covering the space between the lower edge of the frame and the floor.
- The adjustment range of the cover is 50 mm.



Construction

No.	Description
1.	Coin operated lock
2.	Lock screws with wing nuts
3.	Galvanized guide strips for manifold mounting
4.	Adjustable stand
5.	Break-out mounting hole blinds
6.	Frame with depth adjustment
7.	Galvanized body made of metal sheet
8.	Sliding cover

Technical data

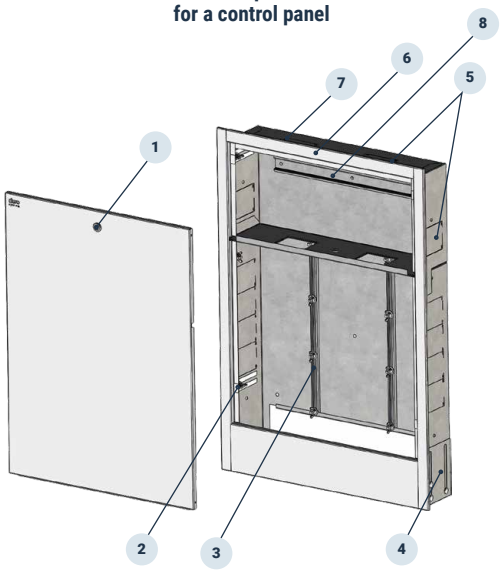
Name	Number of sections + shut-off fittings	Number of sections + mixing system	Width [mm]	Height [mm]	Depth [mm]
D/S-SIP-01B	4	2	490	530-630	125-170
D/S-SIP-02B	6	4	590	530-630	125-170
D/S-SIP-03B	8	6	690	530-630	125-170
D/S-SIP-04B	10	8	790	530-630	125-170
D/S-SIP-05B	14	12	990	530-630	125-170
D/S-SIP-06B	16	14	1110	530-630	125-170

Concealed cabinets

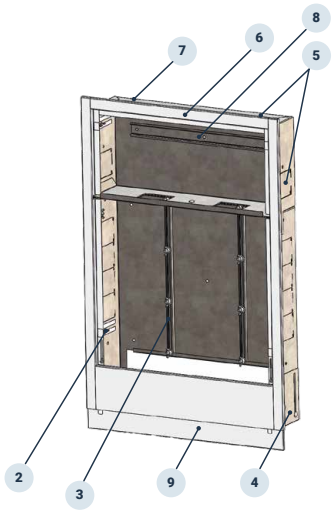
with space for a control panel / with space for control panel with a sliding cover

- Designed for manifold with control panel mounting in previously prepared wall niches, which ensures aesthetic appearance and easy access to installed equipment for service purposes.
- Body, module for control panel and cabinet's stand made of galvanized metal sheet, which guarantees durable protection against corrosion.
- Construction of body made of one metal sheet, bent and connected with technological welds for appropriate rigidity.
- Equipped with a module screwed to the body containing a 35x7.5 mm mounting rail, made in accordance with the PN-EN 60715 standard.
- Rail compatible with the duro system control strip and most competitive solutions available on the market.
- Separating the part with the control panel from the cabinet with the manifold enables better organization of space.

with space for a control panel



with space for control panel with a sliding cover



Construction

No.	Description
1.	Coin operated lock
2.	Lock screws with wing nuts
3.	Galvanized guide strips for manifold mounting
4.	Adjustable stand
5.	Break-out mounting hole blinds
6.	Frame with depth adjustment
7.	Galvanized body made of one metal sheet
8.	Rail for mounting the control panel
9.	Sliding cover (the cover adjustment range is 50 mm)

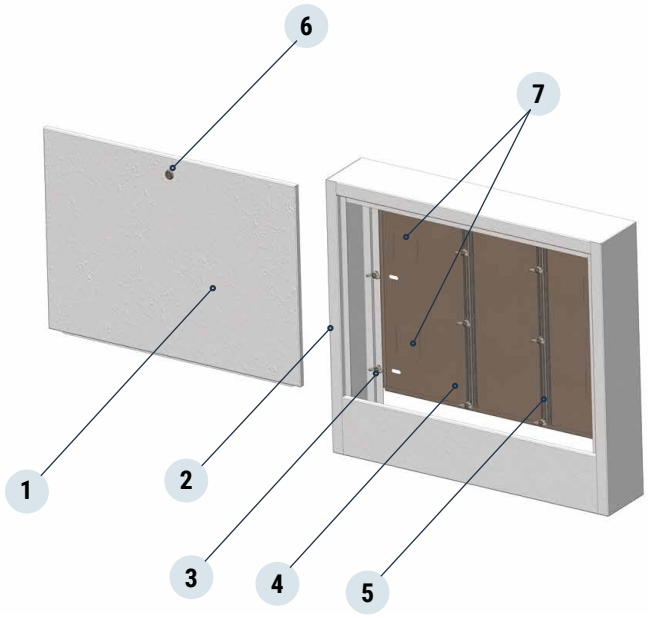
Technical data

Name	Number of sections + shut-off fittings	Number of sections + mixing system	Width [mm]	Height [mm]	Depth [mm]
D/S-SIP-01L (LB*)	4	2	490	755-855	125-170
D/S-SIP-02L (LB*)	6	4	590	755-855	125-170
D/S-SIP-03L (LB*)	8	6	690	755-855	125-170
D/S-SIP-04L (LB*)	10	8	790	755-855	125-170
D/S-SIP-05L (LB*)	14	12	990	755-855	125-170
D/S-SIP-06L (LB*)	16	14	1110	755-855	125-170

* with a sliding cover

Surface-mounted cabinets

- Designed for mounting directly on walls, which provides easy access to installed equipment for service purposes.
- The body and doors are powder coated, which gives an aesthetic appearance and provides protection against corrosion.
- The rear wall of the cabinet is removable, which facilitates assembly in a designated place.
- The rear wall is made of galvanized sheet metal, providing durable anti-corrosion protection.
- Equipped with guides for mounting the distributor and sets of mounting screws.
- Break-out shutters have been used in the rear wall, which allows pipes or cables to be run through the rear wall of the cabinet.



Construction

No.	Description
1.	Powder coated body in RAL 9003
2.	Powder coated cover in RAL 9003
3.	Lock screws with wing nuts
4.	Removable rear wall for easy installation of the cabinet on the wall
5.	Galvanized guide strips for manifold mounting
6.	Coin-operated lock
7.	Break-off mounting hole shutters

Technical data

Name	Number of sections + shut-off fittings	Number of sections + mixing system	Width [mm]	Height [mm]	Depth [mm]
D/S-SIN-01	4	2	490	580	135
D/S-SIN-02	6	4	590	580	135
D/S-SIN-03	8	6	690	580	135
D/S-SIN-04	10	8	790	580	135
D/S-SIN-05	14	12	990	580	135
D/S-SIN-06	16	16	1160	580	135

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