

MOTORIZED CONTROL VALVE

SERIES SLD130

The SLD130 is a high speed control valve suitable for use in potable hot water. With high speed control and modern control interface it is an ideal product where flexibility, compactness and customization is wanted and needed.



SLD130

OPERATION

The ESBE Series SLD130 is a high speed compact mixing and diverting valve made of potable hot water approved material.

FUNCTION

The speed and the high resolution of the actuator combined with a pressure balanced design of the control plunge with symmetrical flow pattern allows the control valve to work both as a mixing valve with high precision and as a very fast diverting valve, with a running time of less than 1 s.

With the advantages of DHW approved material the valve is suitable in several application areas where regular motorized control valves aren't.

SERVICE AND MAINTENANCE

The compact design of the valve allows for easy tool access, when installing the valve. The actuator could be rotated 360° around the axis of the valve to facilitate installation in limited spaces.

The SLD130 is maintenance free, and no exchange of part is needed during its lifetime.

TECHNICAL DATA

Actuator:

Ambient temperature: _____ max. +60°C
 _____ min. -8°C
 Running time: _____ 0,5 s
 Power supply: _____ 24 ± 10% V AC/DC
 Max. peak current consumption: _____ 600 mA
 Max. power consumption idle: _____ 0,8 W
 Enclosure rating: _____ IP54

Material

Cover: _____ PC UL94-VO
 Under body: _____ PC UL94-VO
 Collar: _____ PA6 UL94-VO
 Cable: _____ PVC 4x0,25 mm²

CONTROL SIGNALS

Proportional Control signal 0-10V
 Input resistance, - 10V: _____ 10 kΩ
 Integration time, - 10V: _____ 100 ms
 Proportional band, - 10V: lower limit: _____ 0,1 - 0,3V
 _____ upper limit: _____ 8,5 - 10V

Feedback signal

Status ON output resistance: _____ 730 Ω
 Status OFF output resistance: _____ 30 Ω
 Recommended load resistance: _____ ≥ 1,5 kΩ
 OFF voltage range: _____ 0,0 - 1,0 V DC
 ON voltage range unloaded: _____ 9,2 - 13,8 V DC
 ON voltage range @ 1,5 kΩ load: _____ 6,0 - 13,8 V DC

Valve:

Pressure class: _____ PN 16
 Working pressure: _____ 1,0 MPa (10 bar)
 Differential pressure drop: _____ Mixing max. 300 kPa (3,0 bar)
 _____ Diverting max. 80kPa (0,8 bar)
 Media temperature: _____ max. (continuously) +95°C
 _____ max. (temporarily) +110°C
 _____ min. +5°C
 Internal leakage: _____ 0,00 %
 Connections: _____ External thread (G), ISO 228/1 B
 Media: _____ Fresh water / Potable water
 _____ Heating water (in accordance with VDI2035)
 _____ Water / Glycol mixtures, max. 50%
 _____ Water / Ethanol mixtures, max. 28%

Material

Valve housing and other metal parts
 with fluid contact: _____ Dezincification resistant brass, DZR



LVD 2014/35/EU
 EMC 2014/30/EU
 RoHS3 2015/863/EU

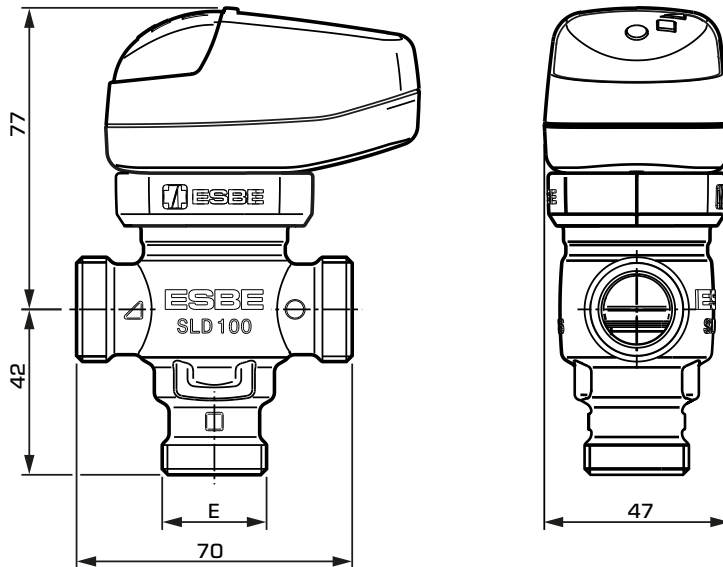


SI 2016 No. 1101
 SI 2016 No. 1091
 SI 2012 No. 3032

PED 2014/68/EU, article 4.3 / SI 2016 No. 1105 (UK)

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SERIES SLD136, EXTERNAL THREAD

Art. No.	Reference	Supply voltage	DN	Kvs*	Connection E	Weight [kg]	Note
43500100	SLD136	24V AC/DC	10	1,6	G 1/2"	0,45	1)
43500200	SLD136	24V AC/DC	15	2,5	G 3/4"	0,48	1)
43500300	SLD136	24V AC/DC	20	3,4	G 1"	0,52	1)




* Kvs-value in m³/h in A & B position at a pressure drop of 1 bar.

Note 1) This art.no. describes a neutral single pack version. There will be an other art.no. for multi-package-solution.

DIMENSIONING OF DOMESTIC WATER APPLICATIONS

Domestic hot water applications can be dimensioned according to the number of households in the house or the number of showers in, for example sports centers.

RECOMMENDED KVS-VALUES

Kvs	Typical households ¹⁾  Quantity*	Showers ²⁾  Quantity*	Shower heads ³⁾  Quantity*
1,5	≤ 3	3	2
2,4	≤ 6	5	3
3,0	≤ 15	6	4

* Number of households in the house or the number of showers in, for example sports centers.

1) A typical household consist of bath, shower, kitchen sink and washbasin with a design flow evaluated from probability curve in reference with EN 806-3:2006, and with a supply pressure >300kPa (3 bar). ESBE recommends max. allowed pressure drop (instant use) over valve <200 kPa (2 bar)

2) Showers in for example sport centers (simultaneous usage) meaning supply of scald safe hot water to shower mixer with supply pressure >300kPa (3 bar)

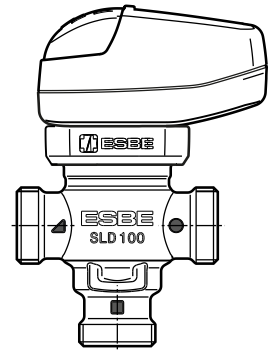
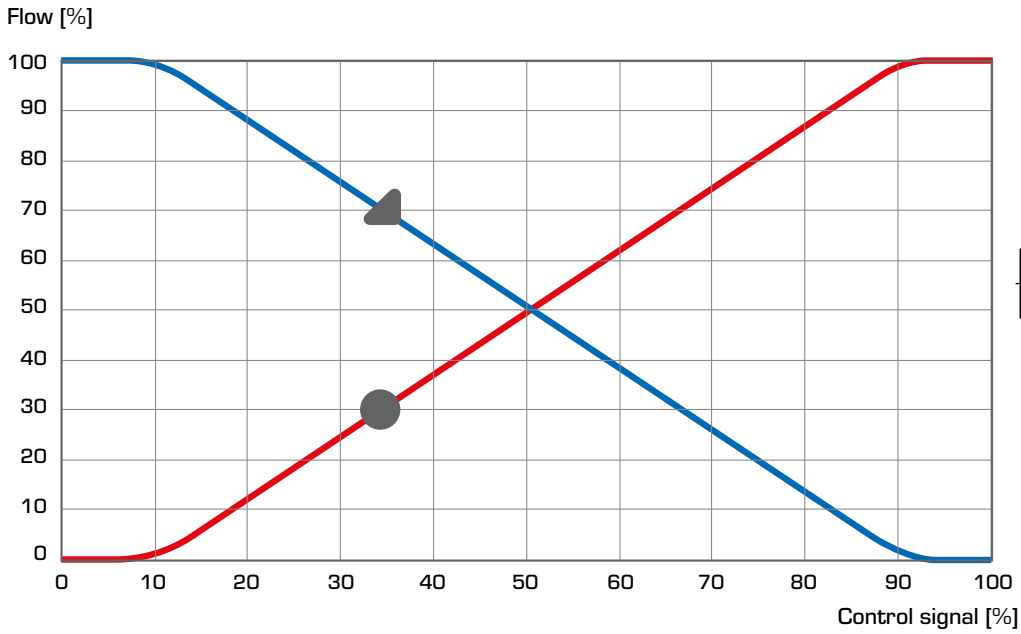
3) Showers in for example sport centers (simultaneous usage) meaning supply of scald safe mixed water to shower head with supply pressure >300kPa (3 bar)

LINEAR UNITS

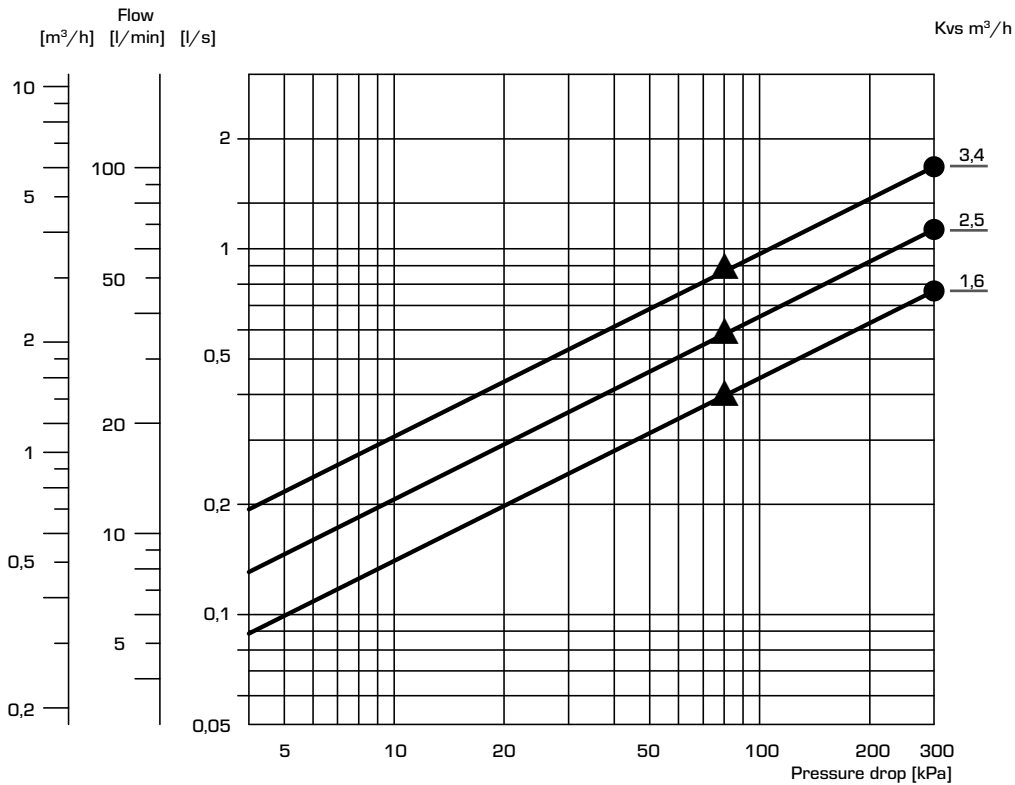
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SERIES SLD130

VALVE CHARACTERISTICS



CAPACITY DIAGRAM



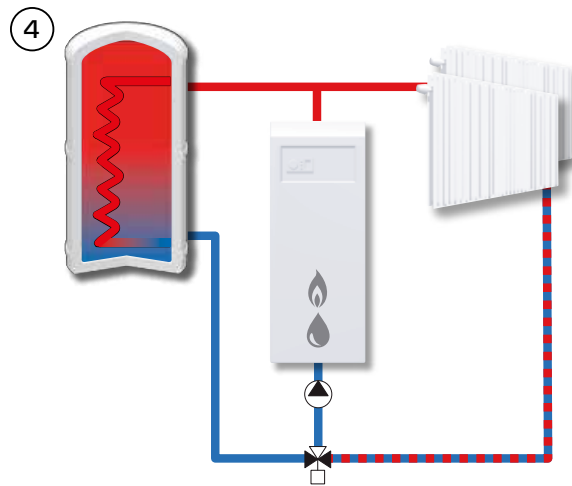
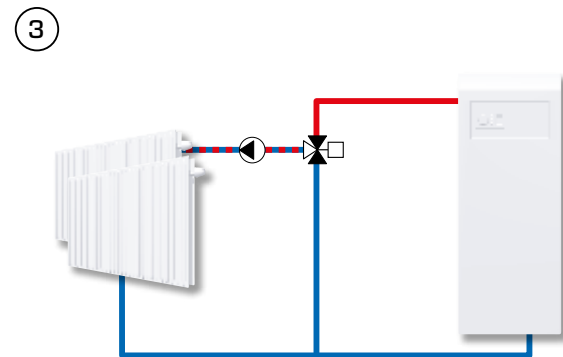
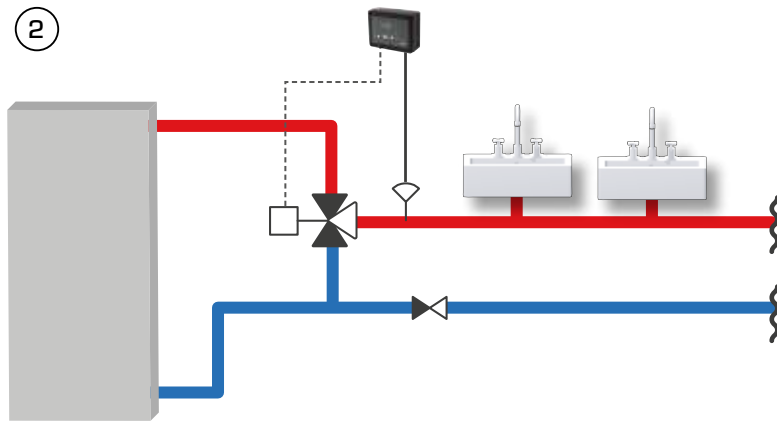
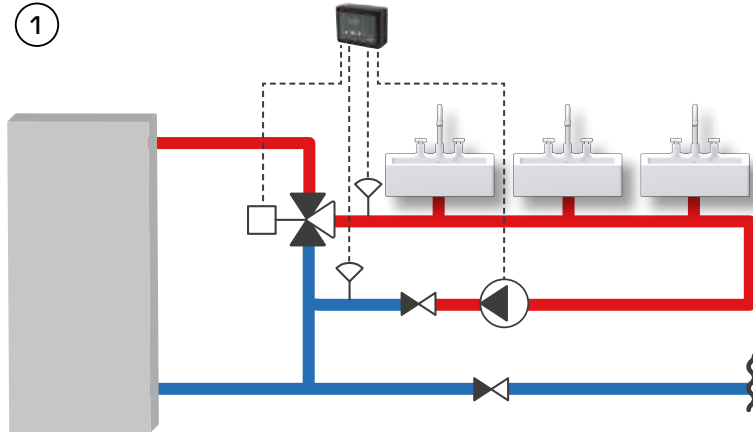
- = max differential pressure drop allowed in mixing function
- ▲ = max differential pressure drop allowed in diverting function

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INSTALLATION EXAMPLES

Sensor and controller is not within scope of delivery.



The shown applications are only examples of product use!
Before using the product in any application, the regional and national regulations need to be checked.