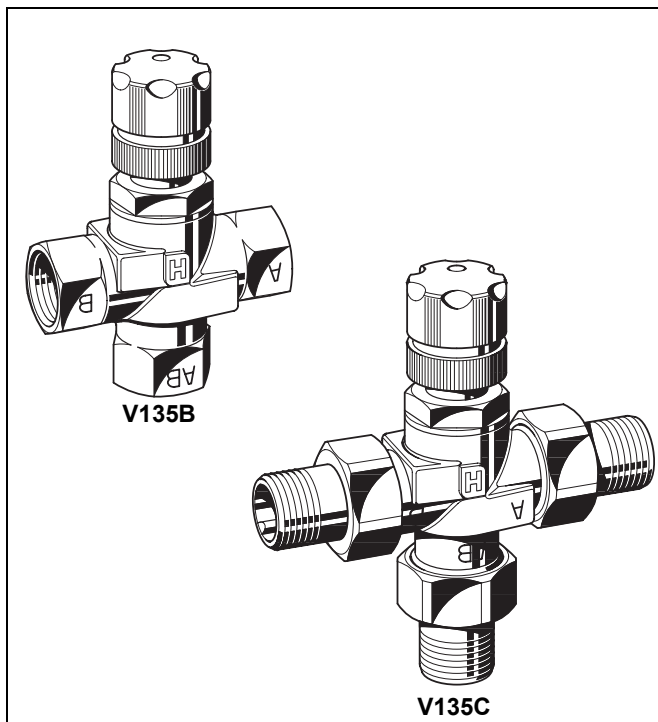


## V135 Diverting and Mixing Valve

### PRODUCT DATA



### Design

The V135 consists of:

- Valve housing PN16 with internal or external threads
- Control insert
- Handwheel cap
- Union-nuts, threaded tailpieces and sealings (C type only)

### Materials

- Valve housing made of red bronze
- Valve insert made of brass and plastic with EPDM O-rings and soft seals
- Handwheel cap made of white plastic
- Union-nuts and tailpieces made of brass

### Application

The V135 is a three-way mixing or diverting valve for hot water heating systems. It is typically used with a T100R or T100RS thermostat for hot water control applications, e.g. temperature control of underfloor heating systems.

### Features

- **Balanced valve insert for high differential pressure resistance**
- **Small stroke with high kv-value**
- **Robust red bronze valve housing**
- **Handwheel cap supplied with valve**
- **Upper spindle sealing can be replaced under system pressure**

### Specifications

<b>Medium</b>	Water or water-glycol mixture, quality to VDI 2035
<b>pH-value</b>	8...9.5
<b>Operating temperature</b>	max. 120°C (248°F)
<b>Operating pressure</b>	max. 16bar (232psi)
<b>Differential pressure with T100R thermostat</b>	max. 10bar (145psi)
<b>kv(cv)-value</b>	see table on page 2
<b>Flow</b>	AB -> A or B A or B -> AB
<b>Starting position</b>	AB - A (B closed)
<b>Stroke</b>	2mm
<b>Closing dimension</b>	11.5mm
<b>Actuator connection</b>	M30 x 1.5

### Suitable Actuators

- Honeywell T100R/RS thermostat for water and air
- Honeywell Smart-T thermal actuator

## Function

### As mixing valve on primary side (in connection with T100R/RS thermostat):

The thermostat sensor is attached to the supply pipeline of the secondary loop. The combination of V135 and T100R/RS acts as mixing valve and controls the amount of primary supply (port A) and return water (port B) to achieve the desired hot water temperature in the secondary supply loop.

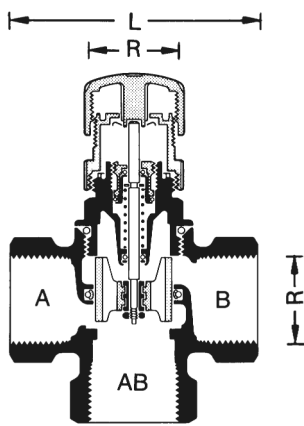
### As mixing valve on secondary side (in connection with T100R/RS thermostat):

The thermostat sensor is attached to the supply pipeline of the secondary loop. The combination of V135 and T100R/RS acts as mixing valve and controls the amount of secondary supply water (port A) mixed to the return water (port B) to achieve the desired hot water temperature in the secondary supply loop (port AB).

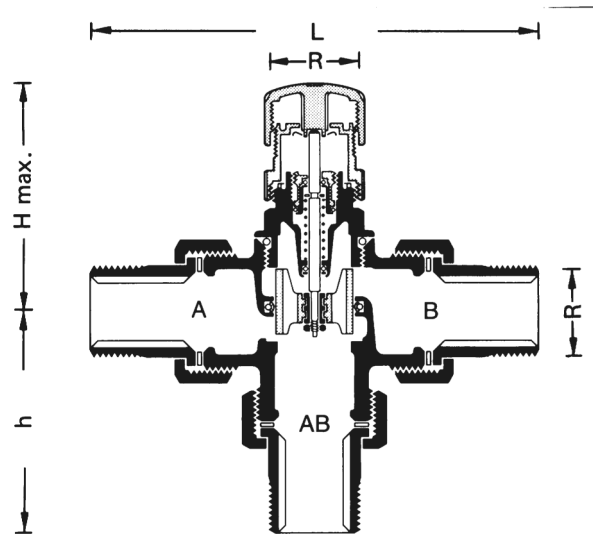
### As diverting valve on primary side (in connection with T100R/RS thermostat):

The thermostat sensor is attached to the supply pipeline of the secondary loop. The combination of V135 and T100R/RS acts as diverting valve and diverts the primary supply (port AB) into the heat exchanger (port A) when the secondary supply temperature is below the set temperature of the T100R/RS thermostat. When the temperature is above the set temperature the primary supply is diverted through the bypass into the return (port B).

## Dimensions



V135B



V135C

Size	k <sub>Vs</sub> (CV)-value	Dimensions B type				Dimensions C type				Weight kg
		R	H	h	L	R	H	h	L	
DN15	2,8	1/2"	82	40	80	1/2"	82	60	130	0,5
DN20	3,2	3/4"	82	40	80	3/4"	82	70	140	0,6
DN25	5	1"	82	45	90	1"	82	80	159	0,8
DN32	5	1 1/4"	82	50	100	1 1/4"	82	95	180	1,3

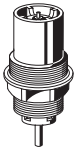
NOTE: All dimensions in mm unless stated otherwise.

## Ordering Information

Order text	Size	Packing unit	OS-No.
V135 B type mixing and diverting valve with internal threads	DN15	1 pc	V135-1/2B
	DN20	1 pc	V135-3/4B
	DN25	1 pc	V135-1B
	DN32	1 pc	V135-11/4B
V135 C type mixing and diverting valve with external threads, union nuts and externally threaded tailpieces	DN15	1 pc	V135-1/2C
	DN20	1 pc	V135-3/4C
	DN25	1 pc	V135-1C
	DN32	1 pc	V135-11/4C

## Accessories

### Valve insert



V135A-1/2VE  
V135A-1VE  
V135A-11/2VE

### Please Note:

- To avoid stone deposit and corrosion the composition of the medium should conform with VDI-Guideline 2035
- Additives have to be suitable for EPDM sealings
- System has to be flushed thoroughly before initial operation with all valves fully open
- Any complaints or costs resulting from non-compliance with above rules will not be accepted by Honeywell
- Please contact us if you should have any special requirements or needs

### Thermostat with remote sensor (screw-in sensor)



With R1/2" immersion pocket	T100R-AA
Setting range 10...50°C (50...122°F)	
With R1/2" immersion pocket	T100R-AB
Setting range 30...70°C (86...158°F)	
With R1/2" screw in sensor	T100RS-DA
Setting range 10...50°C (50...122°F)	
With R1/2" screw in sensor	T100RS-DB
Setting range 30...70°C (86...158°F)	

NOTE: For detailed information see T100R/RS data sheet.

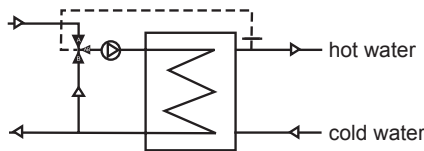
### Smart-T thermal actuator (on/off control only)



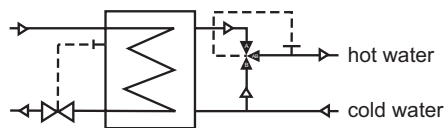
MT4...

NOTE: Please refer to MT4 data sheet for exact model number

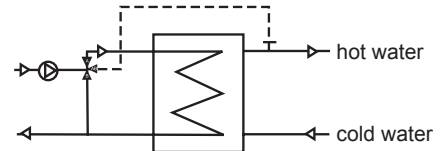
## Installation Examples



Mixing valve on primary side

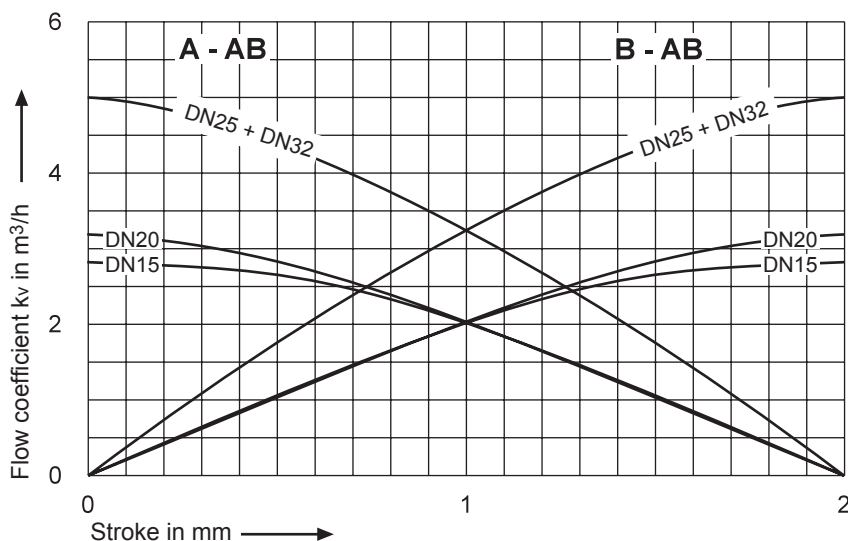


Mixing valve on secondary side

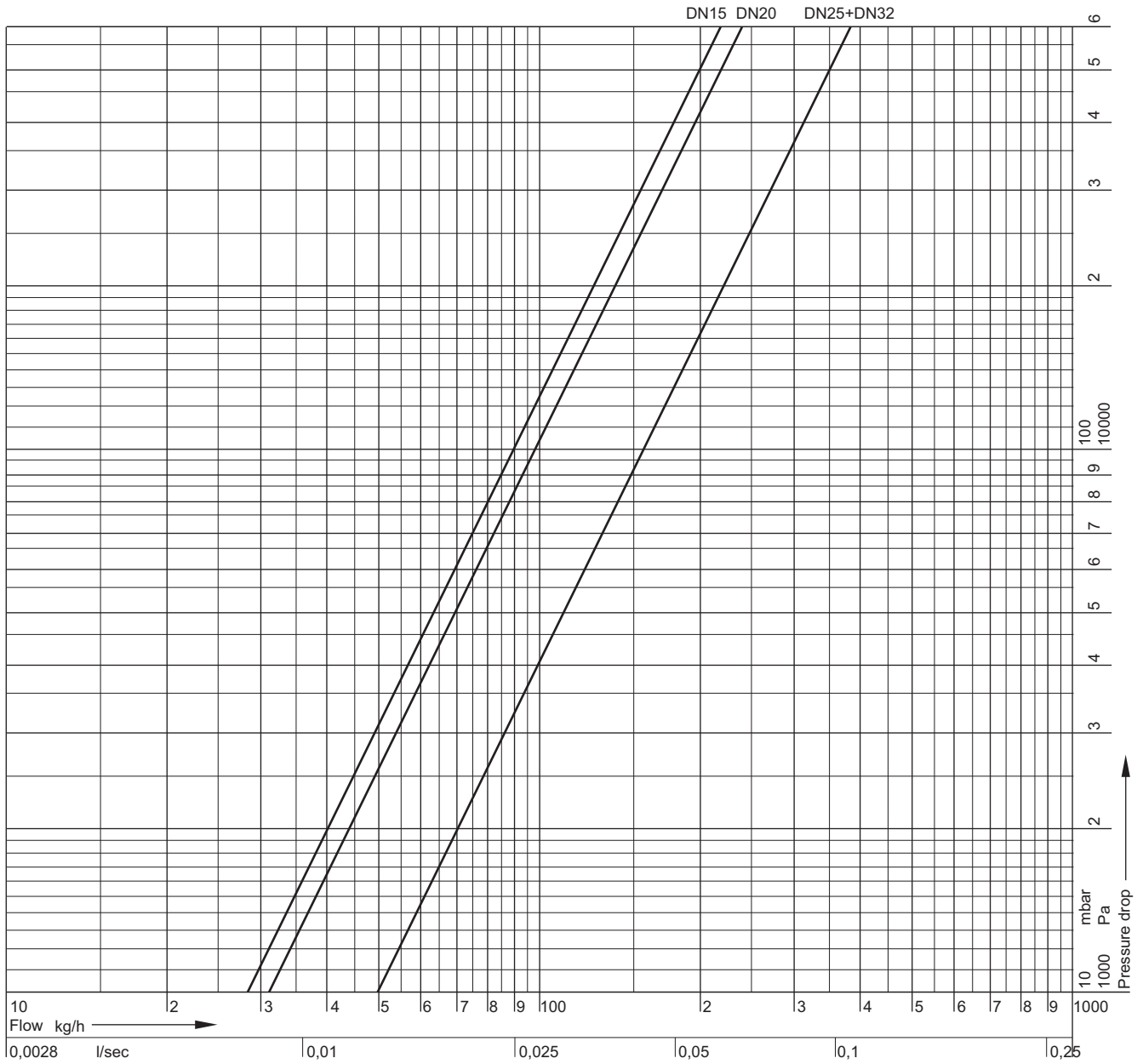


Diverting valve on primary side

## Flow Diagram A - AB and B - AB



# Flow Diagram



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