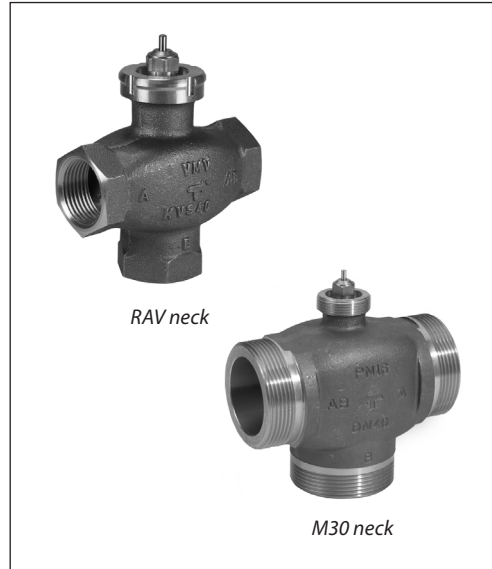


## Data sheet

### 3-way seated valve VMV (PN 16)

- version with RAV neck, internal thread
- version with M30 neck, external thread

#### Description



VMV is 3-way seated mixing valve primarily use for flow temperature control.

It can be combined with:

- AMV(E) 10, 13 electrical actuator
- AMV 150 electrical actuator
- ABV thermohydraulic actuator
- VMV DN 15 and DN 20 can additionally be combined with self-acting thermostatic actuators RAVI and RAVK

#### Main data:

- DN 15-40
- $k_{vs}$  2.5-12 m<sup>3</sup>/h
- PN 16
- Temperature:
  - Circulation water / glycolic water up to 30%: 2 ... 120 °C
- Connections:
  - Internal and external thread

#### Ordering

Example:  
3-way seated valve, DN 15,  $k_{vs}$  2.5,  
PN 16,  $t_{max}$  120 °C, ext. thread

- 1x VMV DN 15 valve  
Code No: **065F6015**

Option:

- 1x Ext. thread tailpieces  
Code No: **065Z7010**

#### VMV valve

Picture	DN	$k_{vs}$ (m <sup>3</sup> /h)	Connection	Actuator connection	Code No.
	15	2.5	Internal thread acc. to ISO 7/1	R <sub>p</sub> 1/2	<b>065F0015</b>
	20	4.0		R <sub>p</sub> 3/4	<b>065F0020</b>
	25	6.3		R <sub>p</sub> 1	<b>065F0025</b>
	32	10		R <sub>p</sub> 1 1/4	<b>065F0032</b>
	40	12		R <sub>p</sub> 1 1/2	<b>065F0040</b>
	15	2.5	Cylindrical external thread acc. to ISO 228/1	G 3/4 A	<b>065F6015</b>
	20	4.0		G 1 A	<b>065F6020</b>
	25	6.3		G 1 1/4 A	<b>065F6025</b>
	32	10		G 1 1/2 A	<b>065F6032</b>
	40	12		G 2 A	<b>065F6040</b>

#### Accessories

Picture	Type	Type designations	DN	Code No.
	VMVH <sup>1)</sup>	Manual operation unit		<b>065F0005</b>
	External thread tailpieces <sup>2)</sup>		15	<b>065Z7010</b>
			20	<b>065Z7011</b>
			25	<b>065Z7012</b>
			32	<b>065Z7013</b>
	40	<b>065Z7014</b>		
	Adapter RAV / M30 neck		15 – 20	<b>065Z7018</b>

<sup>1)</sup> Only for valves with RAV neck

<sup>2)</sup> Only for valves with external thread (M30 neck); incl. 3 tailpieces per code number

#### Service kits

Picture	Type designations	Code No.
	Valve stuffing box	<b>065F0006</b> <sup>1)</sup>

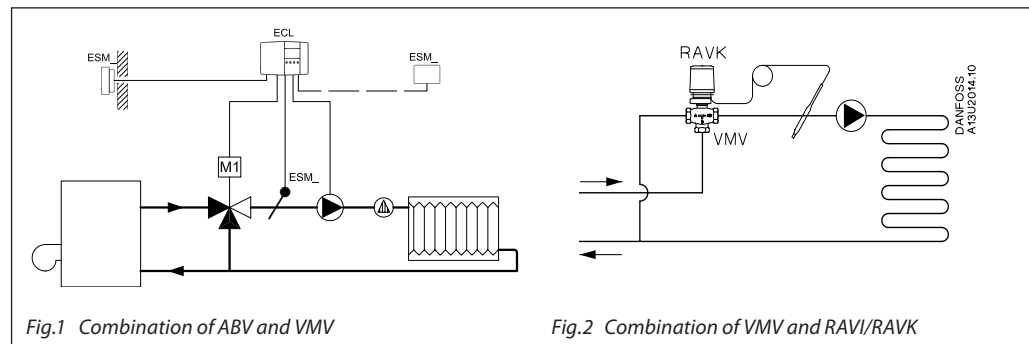
<sup>1)</sup> The products can only be ordered in multiple packing containing 10 pieces each

Technical data

VMV valve

Nominal diameter	DN	15	20	25	32	40
$k_{VS}$ value	m <sup>3</sup> /h	2.5	4.0	6.3	10	12
Stroke	mm	2.0	2.1	2.6	3.1	3.3
Control ratio		1:50				
Control characteristic		Approximately linear				
Cavitation factor z		≥ 0.5				
Leakage acc. to standard IEC 534		A-AB ≤ 0.05 % of $k_{VS}$				
		B-AB ≤ 0.1 % of $k_{VS}$				
Nominal pressure	PN	16				
Medium		Circulation water / glycolic water up to 30%				
Medium pH		Min. 7, max. 10				
Medium temperature	°C	2 ... 120				
Connections		Int. and ext. thread				
<b>Materials</b>						
Valve body		Red bronze CuSn5ZnPb (Rg5)				
Valve seat		Red bronze CuSn5ZnPb (Rg5)				
Valve cone		EPDM				
Spindle		Stainless steel				

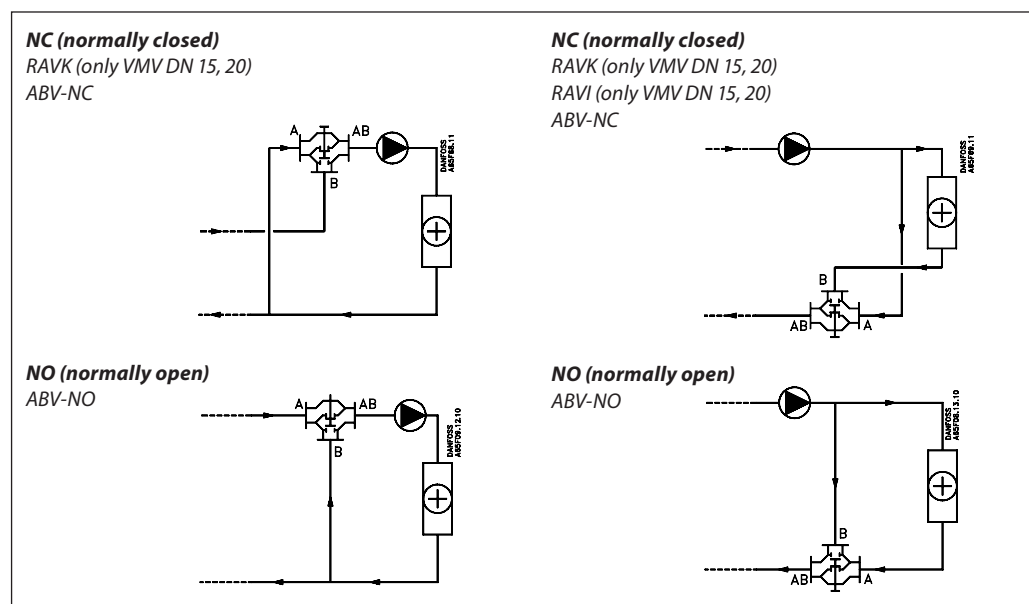
Application principles



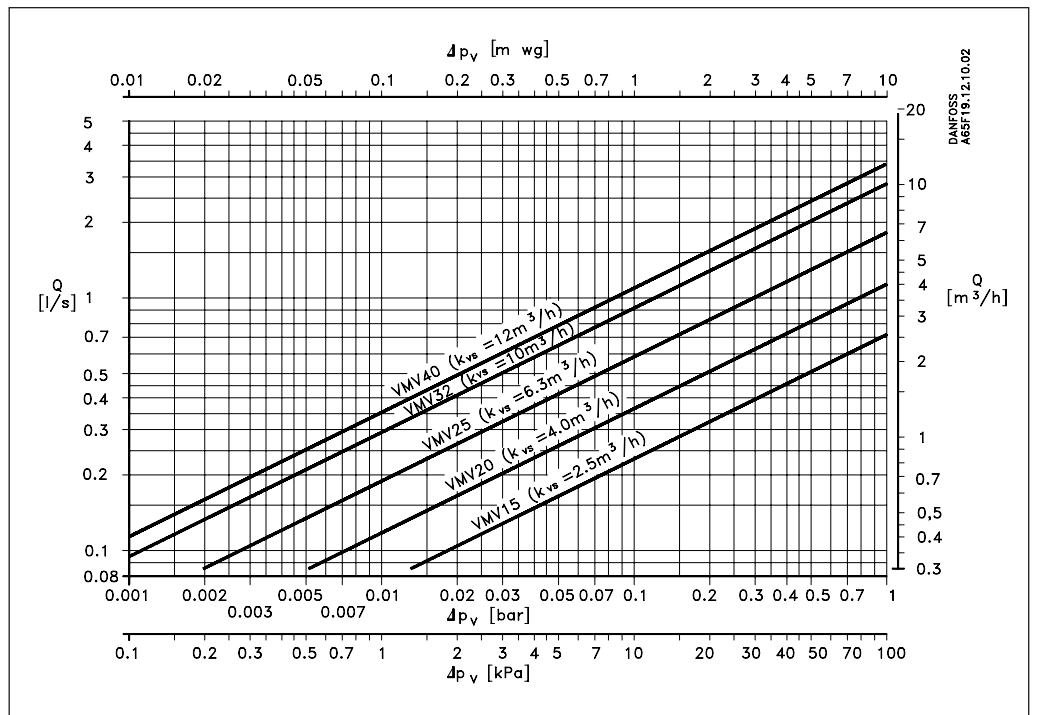
Installation

VMV must always be installed as a mixing valve (two inlet ports-one outlet port), according to flow direction arrows cast into the valve body. VMV closes across main ports A-AB on rising spindle travel.

Combination of VMV and RAVI/RAVK (see "Application principles", Fig.2): Inlet must be on port B and return on port A.



Sizing

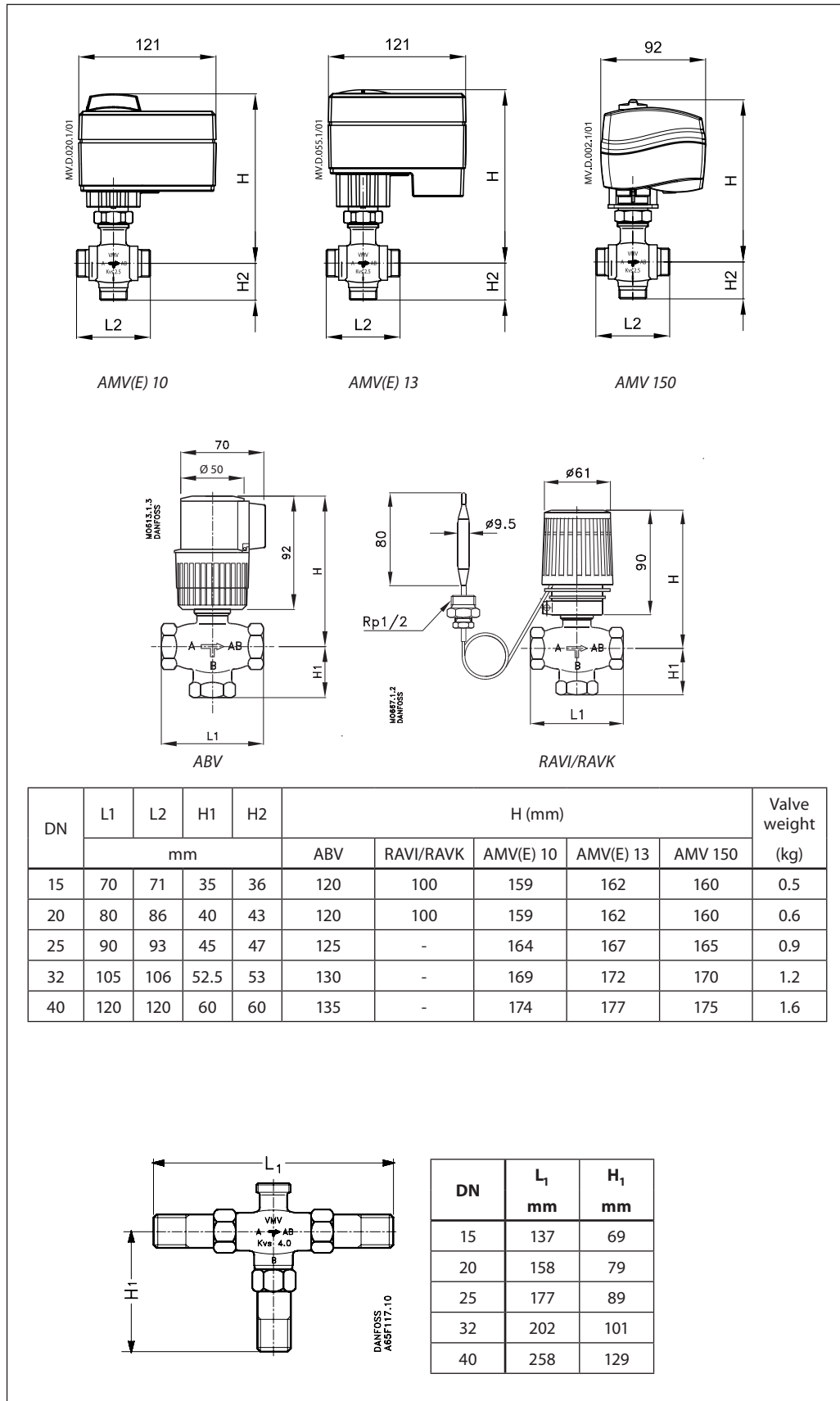


$$Q = k_{VS} \sqrt{\Delta p_v}$$

- Q- actual flow in valve in m<sup>3</sup>/h
- k<sub>VS</sub>- flow in valve in m<sup>3</sup>/h with Δp<sub>v</sub> = 1 bar
- Δp<sub>v</sub>- differential pressure across valve (bar)

Type	Max Δp <sub>v</sub>
VMV 15	0.6 bar
VMV 20	0.5 bar
VMV 25	0.3 bar
VMV 32	0.2 bar
VMV 40	0.2 bar

Dimensions



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