Data sheet



Thermostatic control valves

VMV

3-way seated valve – RAV neck, internal thread / 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 + AMV(E) 130/140 electrical actuator
• ABV thermohydraulic actuator (NC version only for DN15 and DN20).
• VMV DN 15 and DN 20 can additionally be combined with self-acting thermostatic actuators RAVK

Features & benefits

- The VMV 3-way mixing valve provides precise flow temperature control by allowing combination with a wide range of AMV(E) electrical actuators for automated systems.
- For added versatility, smaller valve sizes can be paired with thermohydraulic or self-acting thermostatic actuators, enabling simpler, power-independent control solutions.

Ordering

Product code numbers

VMV valve

Description	Valve size	Kvs values [m^3/h]	Connection types	Connection size	Connection type to valve	Code number
VMV PN16 15/2,5 3-way int. thr RAV neck	DN 15	2.50	Internal thread	Rp 1/2	RAV	065F0015
VMV PN16 20/4 3-way int. thr RAV neck	DN 20	4.00	Internal thread	Rp 3/4	RAV	065F0020
VMV PN16 25/6,3 3-way int. thr RAV neck	DN 25	6.30	Internal thread	Rp 1	RAV	065F0025
VMV PN16 32/10 3-way int. thr RAV neck	DN 32	10.00	Internal thread	Rp 1 1/4	RAV	065F0032
VMV PN16 40/12 3-way int. thr RAV neck	DN 40	12.00	Internal thread	Rp 1 1/2	RAV	065F0040
VMV PN16 15/2,5 3-way ext. thr M30 neck	DN 15	2.50	External Thread	G 3/4 A	M30	065F6015
VMV PN16 20/4 3-way ext. thr M30 neck	DN 20	4.00	External Thread	G 1 A	M30	065F6020
VMV PN16 25/6,3 3-way ext. thr M30 neck	DN 25	6.30	External Thread	G 1 1/4 A	M30	065F6025
VMV PN16 32/10 3-way ext. thr M30 neck	DN 32	10.00	External Thread	G 1 1/2 A	M30	065F6032
VMV PN16 40/12 3-way ext. thr M30 neck	DN 40	12.00	External Thread	G 2 A	M30	065F6040

Note:
1. Internal thread acc. to ISO 7/1
2. External thread acc. to ISO 228/1

Example:

3-way seated valve, DN 15, k_{vs} 2.5; PN 16, T_{max} 120 °C, ext. thread
- 1× VMV DN 15 valve.
*Code No: **065F6015***

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

Accessories code numbers

Type	Description	Code number
Non-standard Accesories - Electr Act	Manual control handle VMVH	065F0005
MCV - Service kits	Valve st.boxRAV,VMT/A/V,KOVM,AVD(S)A I-p	065F0006
Thread tailpieces	Taipiece ext.thr.for VMV PN16 DN15 R 1/2	065Z7010
Thread tailpieces	Taipiece ext.thr.for VMV PN16 DN20 R 3/4	065Z7011
Thread tailpieces	Taipiece ext.thr.for VMV PN16 DN25 R 1	065Z7012
Thread tailpieces	Taipiece ext.thr.forVMV PN16 DN32 R 11/4	065Z7013
Thread tailpieces	Taipiece ext.thr.forVMV PN16 DN40 R 11/2	065Z7014
Adapters	Adapter RAV/M30	065Z7018

Note:
1. **065Z7010, 065Z7011, 065Z7012, 065Z7013, 065Z7014** - for valves with external thread (M30 neck); incl. 3 tailpieces per code number
2. **065F0006 -** can only be ordered in multiple packing containing 10 pieces each
3. **065F0005 -** only for valves with RAV neck

Overview

Application examples

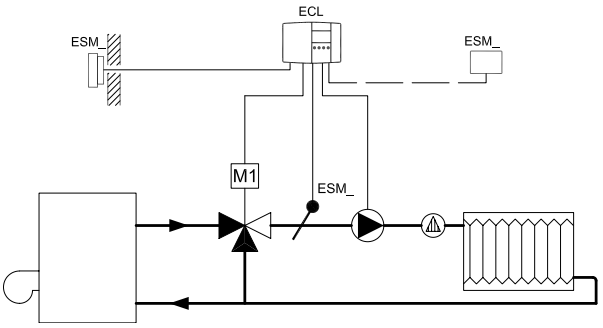


Fig.1 Combination of ABV and VMV

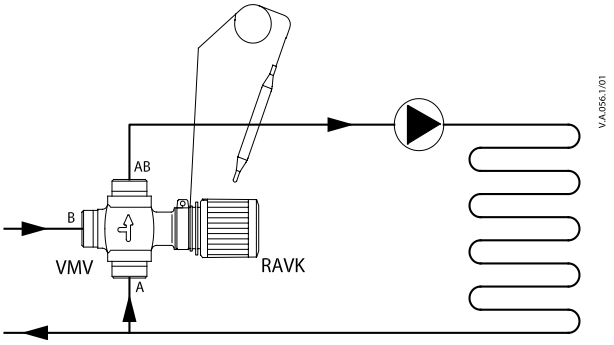


Fig.2 Combination of VMV and RAVK

Product details

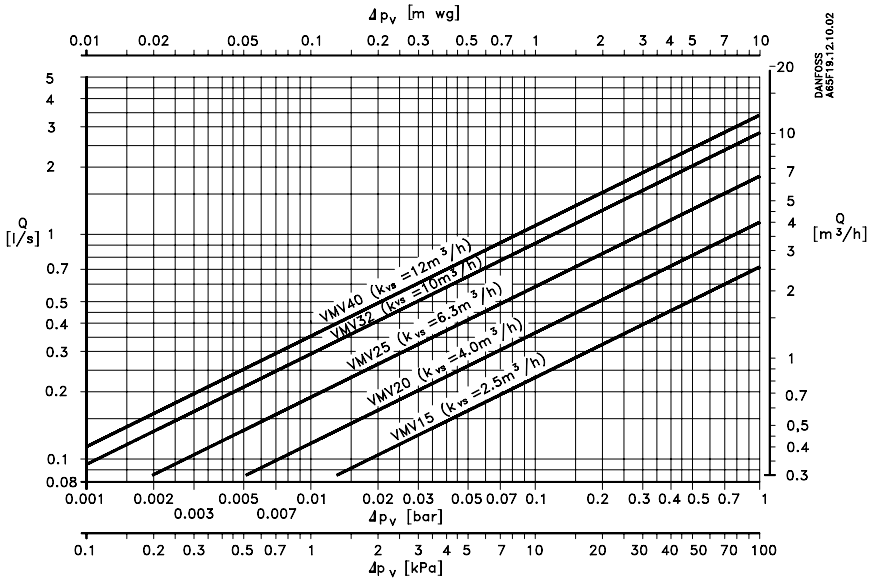
General data

Technical data

VMV valve

Nominal diameter, DN	15	20	25	32	40
k_{vs} value (m^3/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				

Sizing



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

Q - actual flow in valve in m^3/h

k_{VS} - flow in valve in m^3/h with Δp_v = 1 bar

Δp_v - differential pressure across valve (bar)

Type	Max Δp_v
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

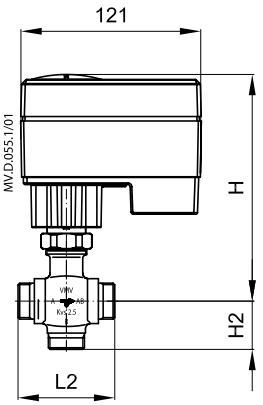
Materials

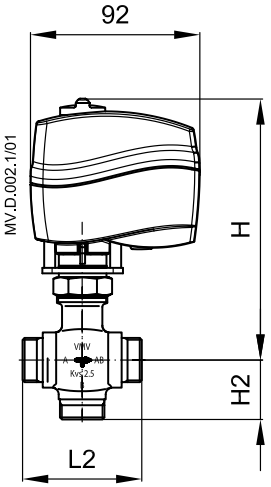
VMV valve

Materials	DN 15, 20, 25, 32, and 40
Valve body	Red bronze CuSn5ZnPb (Rg5)
Valve seat	Red bronze CuSn5ZnPb (Rg5)
Valve cone	EPDM
Spindle	Stainless steel

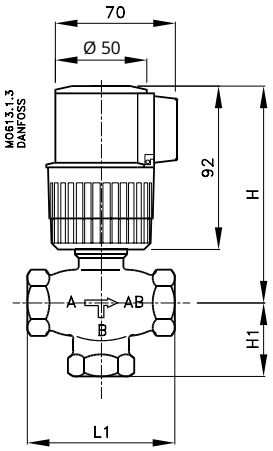
Dimensions

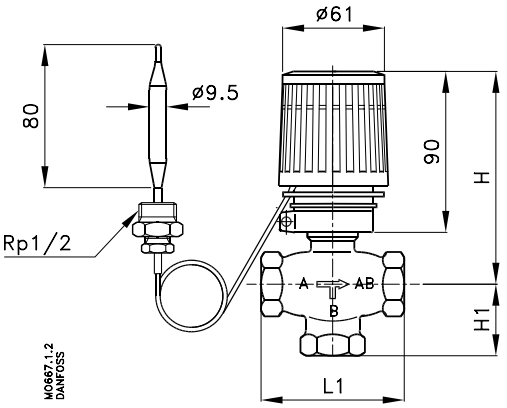
Image





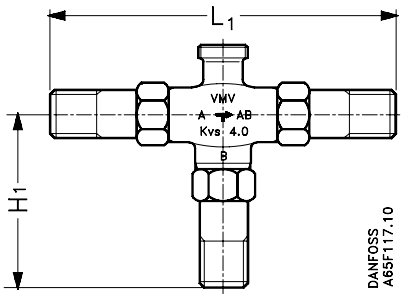
AMV(E) 10 *AMV(E) 13* *AMV 150*





ABV *RAVK*

DN	L1	L2	H1	H2	H (mm)					Valve weight (kg)
	mm				ABV	RAVK	AMV(E) 10	AMV(E) 13	AMV 150	
15	70	71	35	36	120	100	159	162	160	0.5
20	80	86	40	43	120	100	159	162	160	0.6
25	90	93	45	47	125	-	164	167	165	0.9
32	105	106	52.5	53	130	-	169	172	170	1.2
40	120	120	60	60	135	-	174	177	175	1.6

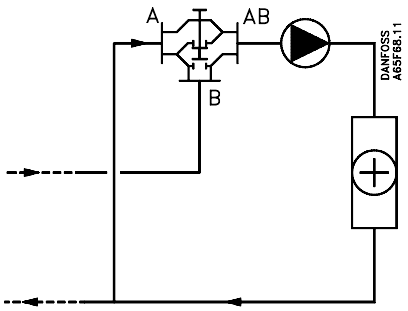


DN	L_1 (mm)	H_1 (mm)
15	137	69
20	158	79
25	177	89
32	202	101
40	258	129

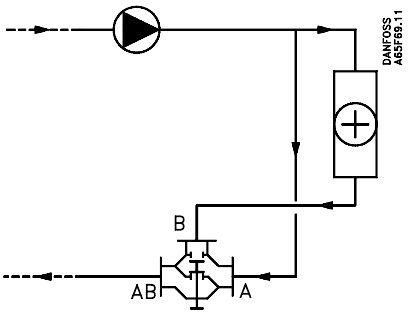
Installation

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 RAVK (see "Application examples", Fig.2): Inlet must be on port A and port B, return on port AB.

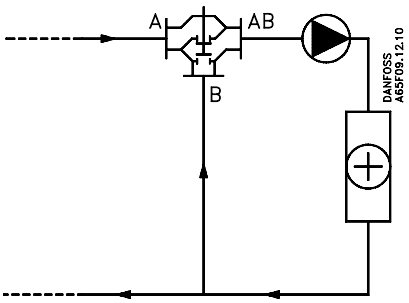
NC (normally closed)
RAVK (only VMV DN 15, 20)
ABV-NC



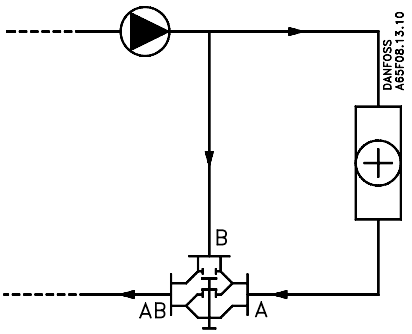
NC (normally closed)
RAVK (only VMV DN 15, 20)
ABV-NC



NO (normally open)
ABV-NO



NO (normally open)
ABV-NO



Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Issuer	Approval topic
EAC Declaration	EAC KZ 7100841.13.12.02363	EAC - Eurasian Customs Union	MD
UA Declaration	Danfoss UA 10.01.23 Heat Control Valves	Danfoss	
Manufacturer's Declaration	Danfoss MD 090922EN0808101.01	Danfoss	EU RoHS, PED, Pressure
Export Control Declaration	Actuators pressure flow and temperature	Danfoss	
EU Declaration	Packaging EU Declaration of Conformity 260707EN0801	Danfoss	PPWR, Packaging
Manufacturer's Declaration	Manufacturer's declaration_230713EN0863101	Danfoss	PED

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