

Data sheet

2 - way seated valve (PN 10)

VMT - external thread

Description



VMT is 2-way seated valve primarily for use in heating systems.

It can be combined with:

- ABV and ABNV* Thermohydraulic actuators
- RAVI, RAVK and RAVV self-acting thermostatic actuators

* ABNV can be combined with VMT-/8 valves only.

Main data:

- DN 15 - 25
- k_{VS} 1.5 - 8.0 m³/h
- PN 10
- Temperature:
 - Circulation water / glycolic water up to 30%: 2 ... 120 °C
- Connections:
 - Ext. thread

Ordering

Example:
2-way seated valve, DN 15, k_{VS} 1,5,
PN 10, t_{max} 120 °C, ext. thread,
max. Δp 0.8 bar

- 1x VMT DN 15 valve
Code No: **065F0115**

Option:
- 1x Comp. fittings
Code No: **013G4125**

VMT valve

Picture	Type	DN	k_{VS} (m ³ /h)	Connection, ISO 228/1		Max. diff. pressure (bar)	Code No.
				Inlet	Outlet		
	VMT 15/8	15	1.5	G 3/4 A	G 3/4 A	0.8	065F0115
	VMT 20/8	20	2.3	G 1 A	G 1 A		065F0120
	VMT 25/8	25	3.1	G 1 1/4 A	G 1 1/4 A		065F0125
	VMT 15/2	15	2.8	G 3/4 A	G 3/4 A	0.2	065F0114
	VMT 20/2	20	5.0	G 1 A	G 1 A		065F0119
	VMT 25/2	25	8.0	G 1 1/4 A	G 1 1/4 A		065F0124

Accessories

Picture	Type designations	DN	Dimensions	Code No. ³⁾
	Compression fittings ^{1),2)}	15	Ø 15 × 1	013G4125
			Ø 16 × 1	013G4126
			Ø 18 × 1	013G4128
		20	Ø 18 × 1	013U0134
			Ø 22 × 1	013U0135
			Ø 28 × 1	013U0140

¹⁾ Compression fitting consist of compression ring and union

²⁾ For copper pipe

³⁾ The products can only be ordered in multiple packing containing 10 pieces each

Service kits

Picture	Type designations	Code No.
	Valve stuffing box	065F0006 ¹⁾

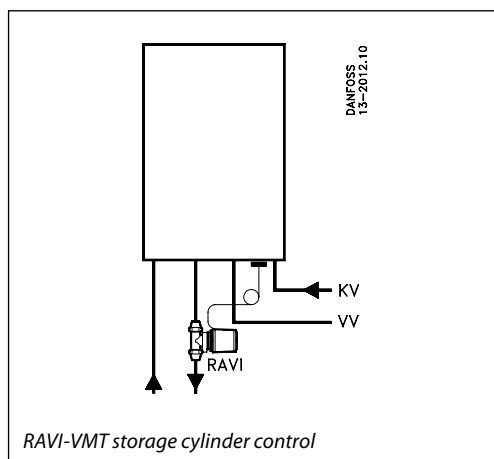
¹⁾ The products can only be ordered in multiple packing containing 10 pieces each

Tehcnical data
VMT valve

Nominal diameter	DN	15		20		25	
Type		VMT 15/8	VMT 15/2	VMT 20/8	VMT 20/2	VMT 25/8	VMT 25/2
k_{vs} value	m ³ /h	1.5	2.8	2.3	5.0	3.1	8.0
Stroke	mm	1.1					
Cavitation factor z		≥ 0.5					
Nominal pressure	PN	10					
Medium		Circulation water / glycolic water up to 30%					
Medium pH		Min. 7, max. 10					
Medium temperature	°C	2 ... 120					
Connections		Ext .thread					
Materials							
Valve body		Brass					
Valve cone		NBR rubber					
Pressure pin		CrMo steel					

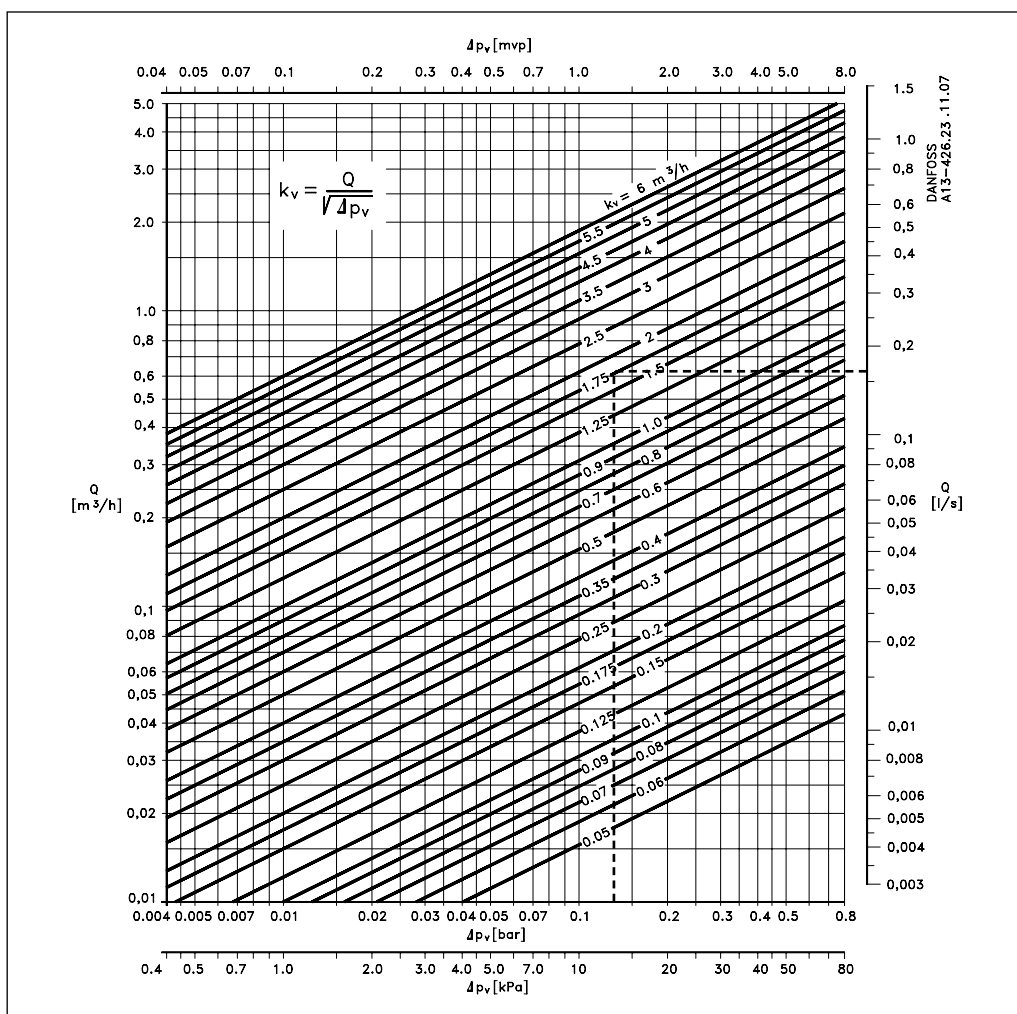
Type	k_v in m ³ /h for P-band ²⁾ in °C of					Max. differential pressure
	2	3	4	5	6	
RAVI-VMT 15/8	0.7	0.9	1.1	1.2	1.3	0.8 bar
RAVI-VMT 20/8	1.0	1.4	1.8	2.1	2.4	
RAVI-VMT 25/8	1.2	1.6	2.0	2.3	2.6	
RAVI-VMT 15/2	2.1	2.5	2.7	2.7	2.8	0.2 bar ¹⁾
RAVI-VMT 20/2	2.4	2.9	3.4	3.8	4.1	
RAVI-VMT 25/2	2.9	3.5	4.2	4.8	5.6	

- 1) If larger capacity is necessary, function can be maintained for differential pressure 0.5 bar.
 2) P-band given apply only to combination RAVI-VMT.

Application principle

Installation

Installation is dependent on chosen valve and element combination (See also "Data sheet" for RAVI, RAVK, RAVV and ABV/ABVNV).

Sizing



Example

Temperature control of hot water service with RAVI-VMT.

Required:
Correct valve size

Given data:

Cylinder consumption: 14 kW (12000 kcal/h)
Temperature difference: 20 °C

Solution:
locate necessary k_v value in the diagram using water volume (0.167 l/s) and differential pressure (0.12 bar) - in this case 1.75.

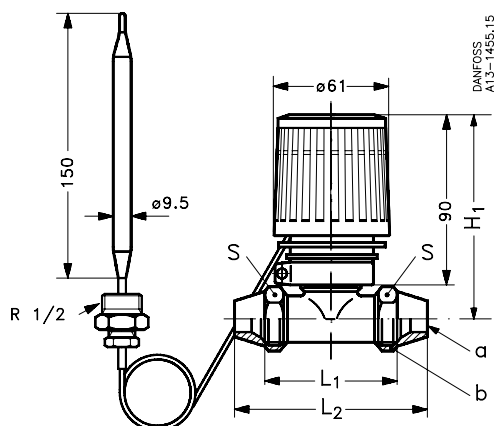
Flow volume: $\frac{14}{20 \times 4.2} = 0.167 \text{ l/s}$

P-band requested is 6 °C.
From k_v factor table, find a valve body that gives the necessary k_v value at 6 °C.

Differential pressure Δp across valve: 0.12 bar

In this example VMT 20/8 valve body with k_v value of 2.4 is correct.

Dimensions



DN	Type	a (mm)	b ISO 228/1	L1 (mm)	L2 (mm)	S (mm)	H (mm) VMT + type				
							RAVV	RAVI	ABV	ABN	RAVK
15	VMT 15/8	Ø 15/Ø 16/Ø 18	G ¾ A	66	105	30	93	103	111	86	103
20	VMT 20/8	Ø 18/Ø 22	G 1 A	74	123	37	93	103	111	86	103
25	VMT 25/8	Ø 28	G 1 ¼ A	90	146	45	106	116	124	99	116
15	VMT 15/2	Ø 15/Ø 16/Ø 18	G ¾ A	66	105	30	97	107	115	-	107
20	VMT 20/2	Ø 18/Ø 22	G 1 A	74	123	37	100	110	118	-	110
25	VMT 25/2	Ø 28	G 1 ¼ A	90	146	45	106	116	124	-	116

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