

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
		25	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

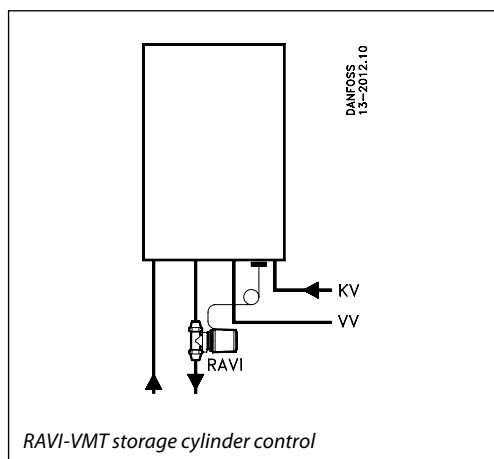
Nominal diameter	DN	15		20		25	
Type		VMT 15/8	VMT 15/2	VMT 20/8	VMT 20/2	VMT 25/8	VMT 25/2
k _{vs} value	m³/h	1.5	2.8	2.3	5.0	3.1	8.0
Stroke	mm	1.1					
Cavitation factor z		≥ 0.5					
Nominal pressure	PN	10					
Medium		Circulation water / glycolic water up to 30%					
Medium pH		Min. 7, max. 10					
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.

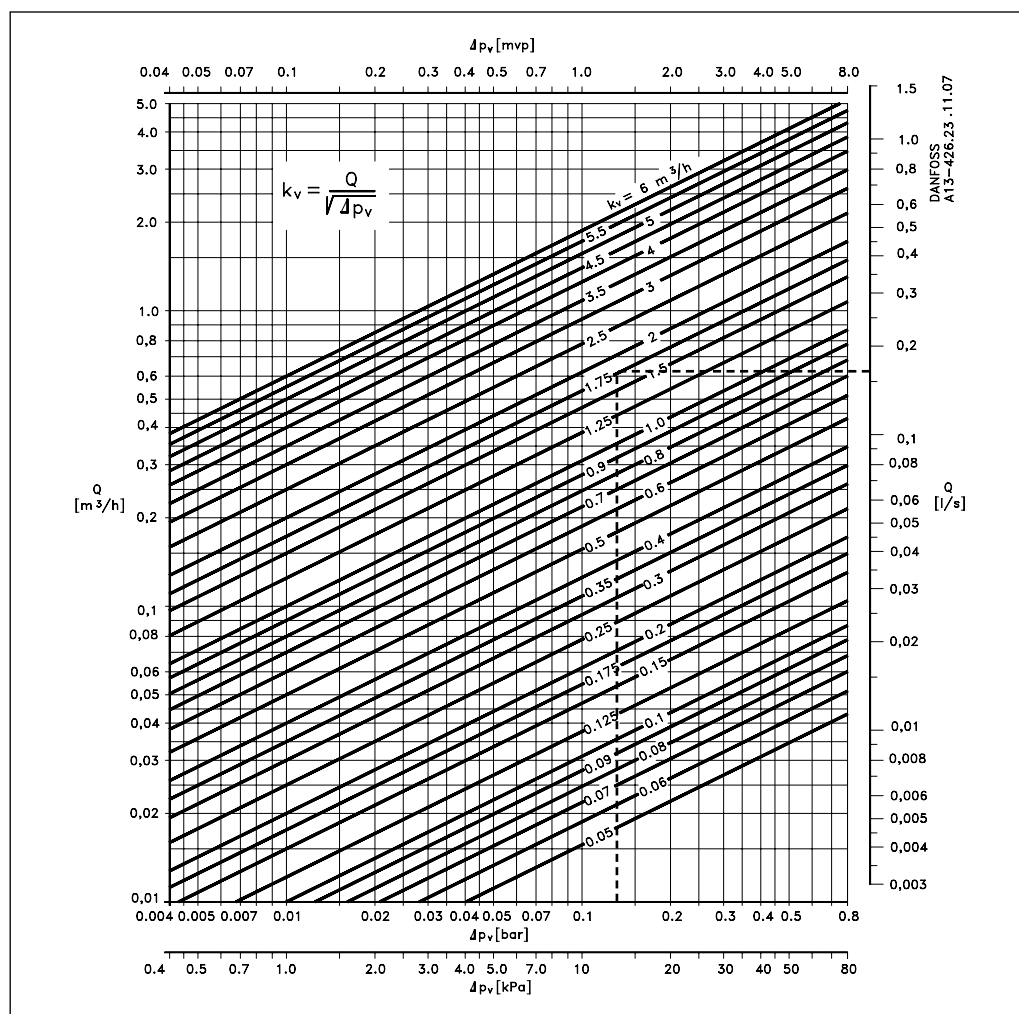
Application principle



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

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

Differential pressure
 Δp across valve: 0.12 bar

Solution:

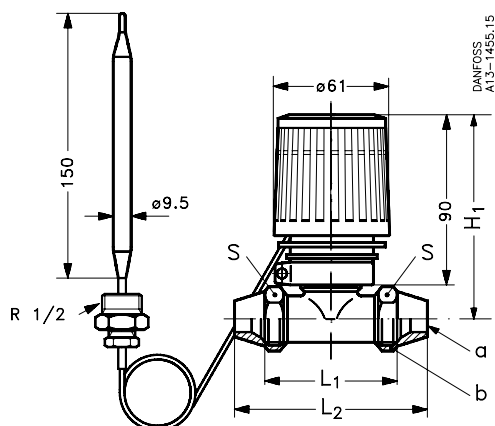
locate necessary k_v value in the diagram using water volume (0.167 l/s) and differential pressure (0.12 bar) - in this case 1.75.

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.

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 3/4 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 1/4 A	90	146	45	106	116	124	99	116
15	VMT 15/2	Ø 15/Ø 16/Ø 18	G 3/4 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 1/4 A	90	146	45	106	116	124	-	116

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without consequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.