



## Calculation of diameter and type for thermostatic control valve model M...

This table is intended to calculate the diameter and type: For this you need to enter four sizes:

- The medium: "0" for water or "46" for oil ISO VG 46
- Flow q: Choose unit l/min or m<sup>3</sup>/h, enter flow corresponding to the unit
- Pressure drop  $\Delta p$ : Enter pressure drop from 0,1 bar to 1,35 bar
- Temperature fluid T: Choose specified mix-temperature in °C

From line 16 to line 31 the results get administered.

You can specify the valve more precisely from line 33 housing and data options. These data have no influence on the calculation of diameter and type.

On the next side is an example calculation.

If you are interested in our table in Excel format, or you would like to make future valve selections on your own, please contact us. The table can be obtained from us free of charge via Email or CD.

MVA Mess- und Verfahrenstechnik GmbH



## Calculation of Diameter and Type

1

2 **PROJEKT:** example

3 **MVA Nr.:**

4 **Position:**

5

6 **Input/System Data:**

7 **Oil typ (water = 0)** ISO-VG 46 ← specify typ of oil for example "46" ISO VG 46  
or "0" for water

8

9 **flow q** l/min 1000,0 ← specify volume flow rate incl. unit

10 **pressure drop  $\Delta p$**  bar 1,00 ← specify desired pressure drop of valve

11 **Temperature fluid T** °C 45 ← specify desired temperature in degree Celsius

12

13

14

15 **Result:**

16 flow q l/min 1000,00

17 specific gravity  $\gamma$  kg/l 0,90

18 Oil code 10

19 Temp. Rounded °C 50,00

20 flow q m<sup>3</sup>/h 60,00

21  $Kv_{min}$  l/min 1197,83

22  $Kv_{min}$  m<sup>3</sup>/h 71,87

23 A0 min. cm<sup>2</sup> 17,82

24 velocity m/s 5,03

25 viscosity cSt 30,00

26 correction value viscosity f ./ 0,79

27

28 **valve selection:**

29 DN mm 65

30 Kvs value: l/min 1355

31 Kvs value: m<sup>3</sup>/h 81

32

33 **Housing, material and options:**

33 connection DIN-PN40

34 Reducing bush for low flow nein

35 Housing material GJS400

36 Elements Standard

37 sealing EPDM

38 leak hole keine

39 Manual override nein

40 **Valve code** **M65T....**