

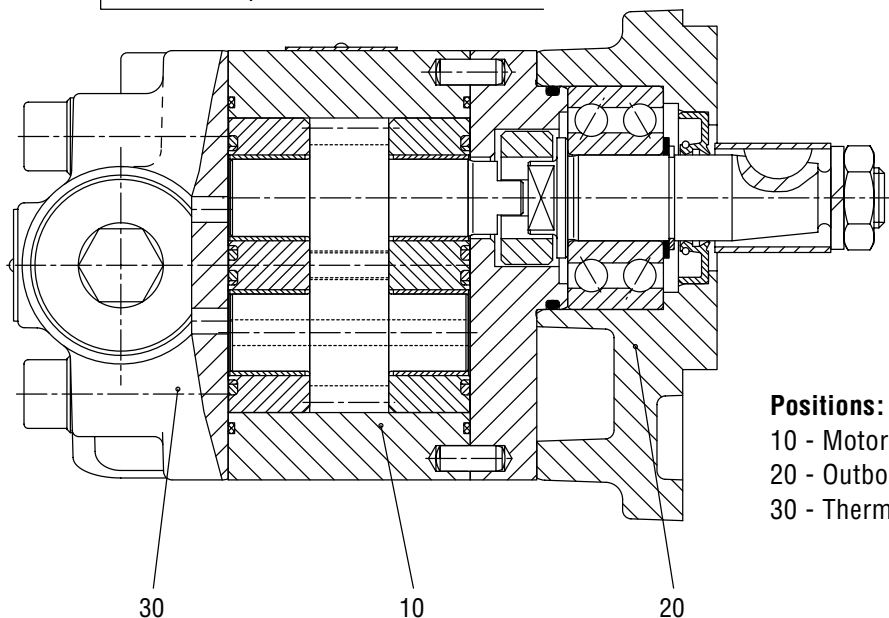
**Gear motor with thermovalve
(Fan motor)
KM 1 + TKM**

Gear motor with thermovalve KM 1 + TKM

Structure of the fan motor with outboard bearing

KM 1/.L.LA F00 4NL./.

↑ nominal displacement NG: 11 to 22

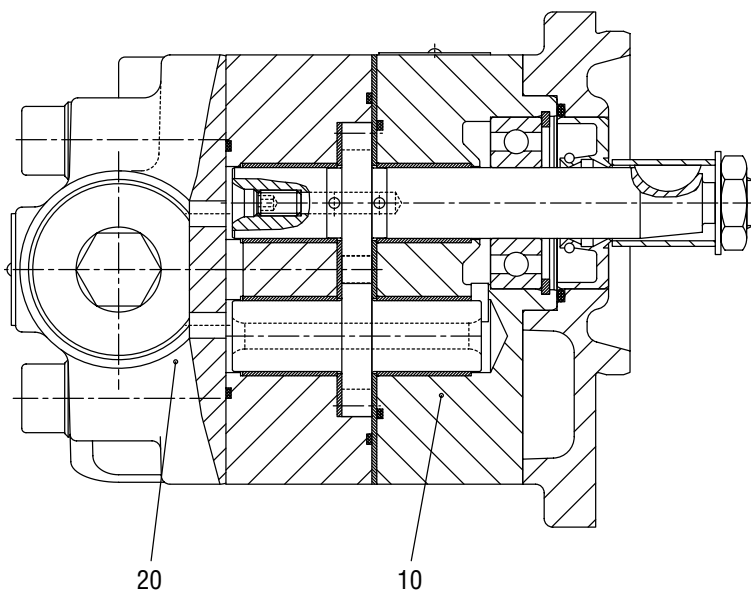


Positions:
 10 - Motor
 20 - Outboard bearing
 30 - Thermovalve

Structure of the fan motor without outboard bearing

KM 1/. ..OA .00 2ML./.

↑ nominal displacement NG: 4 to 9.6

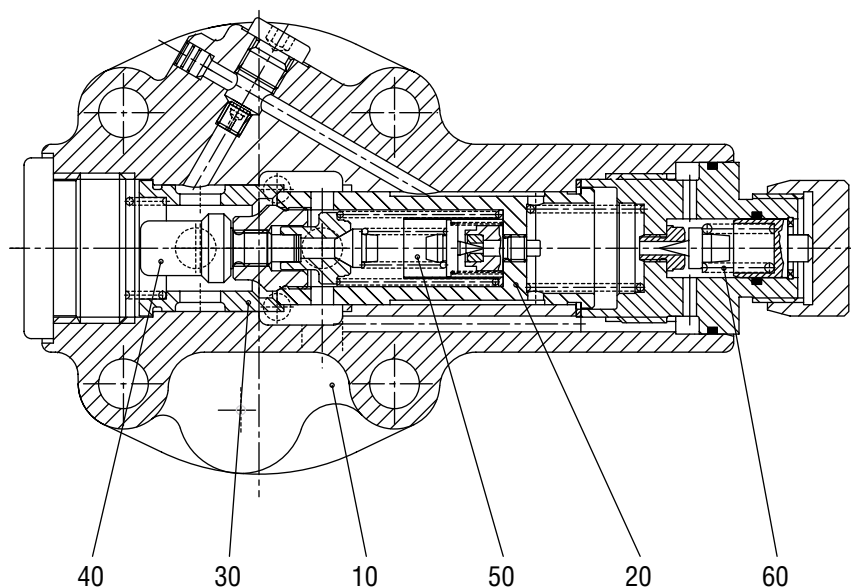


Positions:
 10 - Motor
 20 - Thermovalve

Further informations about gear motors KM 1 can be obtained from KM1.d.05.2000 leaflet.

Gear motor with thermovalve KM 1 + TKM

Structure of thermovalve TKM 1 (for gear motor KM 1)



Positions:

- 10 - Housing (cover)
- 20 - Main piston valve
- 30 - Recharging piston
- 40 - Flexible material element
- 50 - Pre-control (temp.-controlled)
- 60 - Pre-control (p_{\max} permanently set)

Description

The thermovalve is a pre-controlled pressure relief valve with temperature-dependent pressure control and is mounted on the KRACHT KM 1 gear motor in the place of the existing cover plate.

Motor + TKM = fan motor

There are two different types:

- a) Pressure and temperature control TKM 1 D ... and
- b) Quantity, pressure and temperature control TKM 1 M ...

The basic principle of both variants is that the pressure setting of the valve automatically changes dependent on the temperature, via a built-in flexible material element, and thus controls the motor speed. The pressure control for a) contains a pure pressure control, while the quantity and pressure control for b), in addition to the pressure control, also contains a permanently set quantity control.

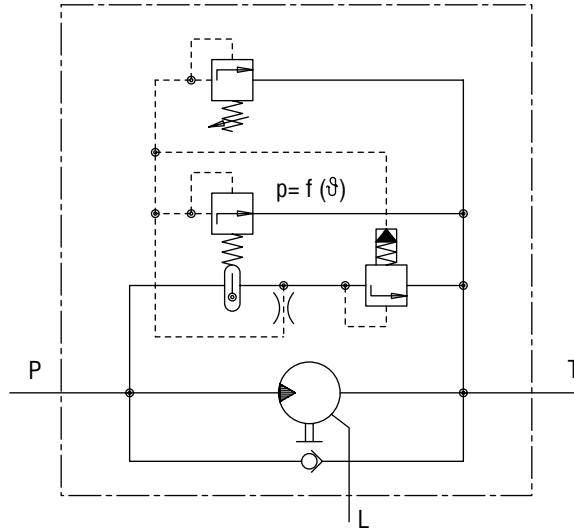
In addition to the actual temperature-controlled pressure setting, a mechanical maximum pressure control, set in the factory, and a recharging valve are fitted as a non-return valve.

To enable further consumption units to be installed in the fan motor cycle, there is also a type with external oil discharge. The "internal" oil discharge model must be arranged when the order is placed, as a subsequent conversion can only be carried out in the factory.

Gear motor with thermovalve KM 1 + TKM

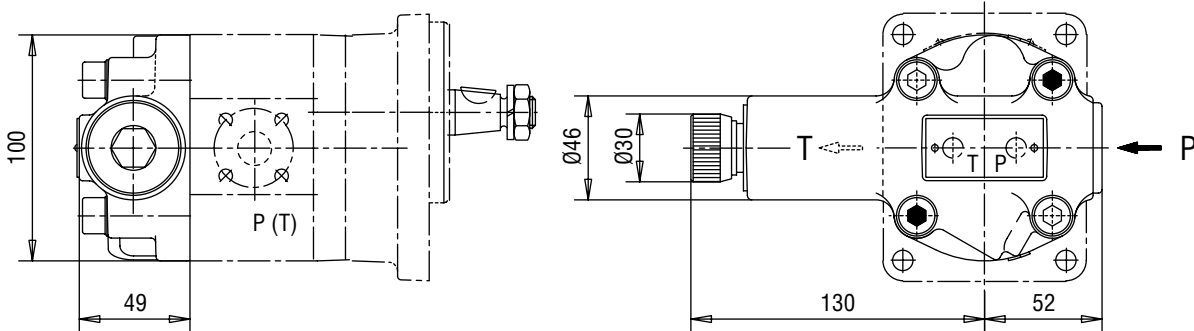
Function "D"

Pressure and temperature control

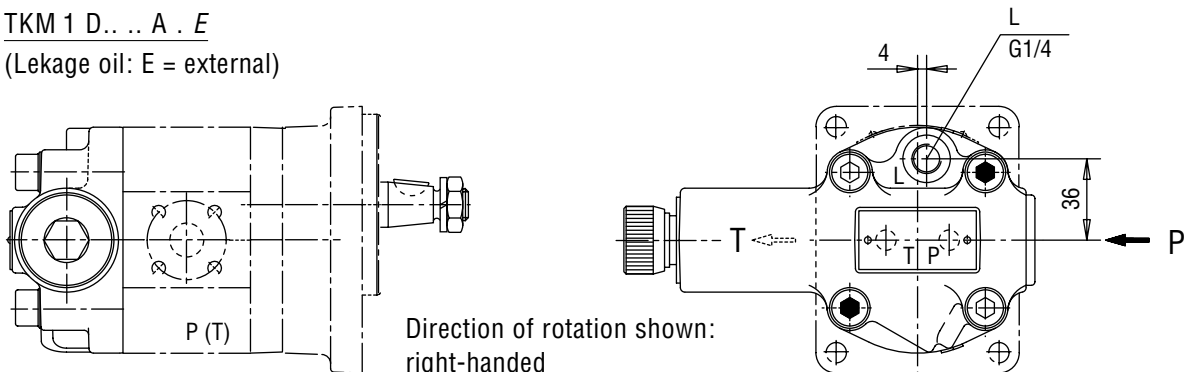


Dimensions

Type: TKM 1 D... A . A
(Leakage oil: A = internal)



Type: TKM 1 D... A . E
(Leakage oil: E = external)



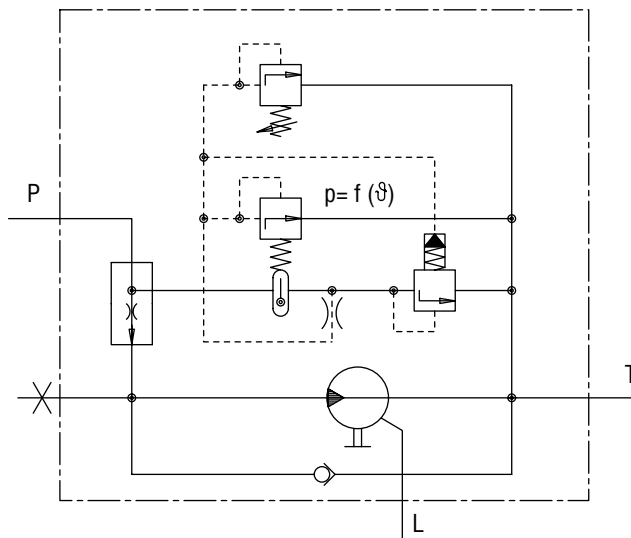
Direction of rotation shown:
right-handed
for left-handed direction of rotation,
the thermovalve is rotated by 180°.

Note: The existing oil discharge can only be converted in the factory.
(Attention: Connection "L" must not be sealed.)

Gear motor with thermovalve KM 1 + TKM

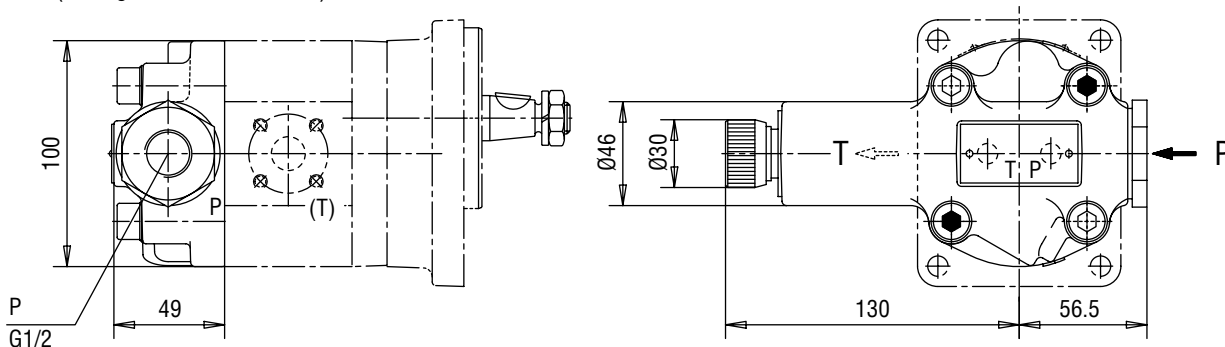
Function "M"

Flow-, pressure temperature control

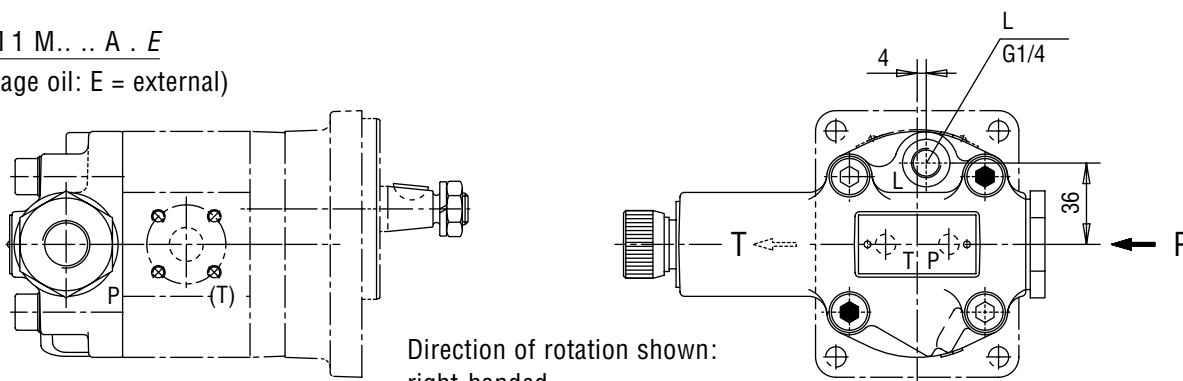


Dimensions

Type: TKM 1 M... A . A
(Leakage oil: A = internal)



Type: TKM 1 M... A . E
(Leakage oil: E = external)

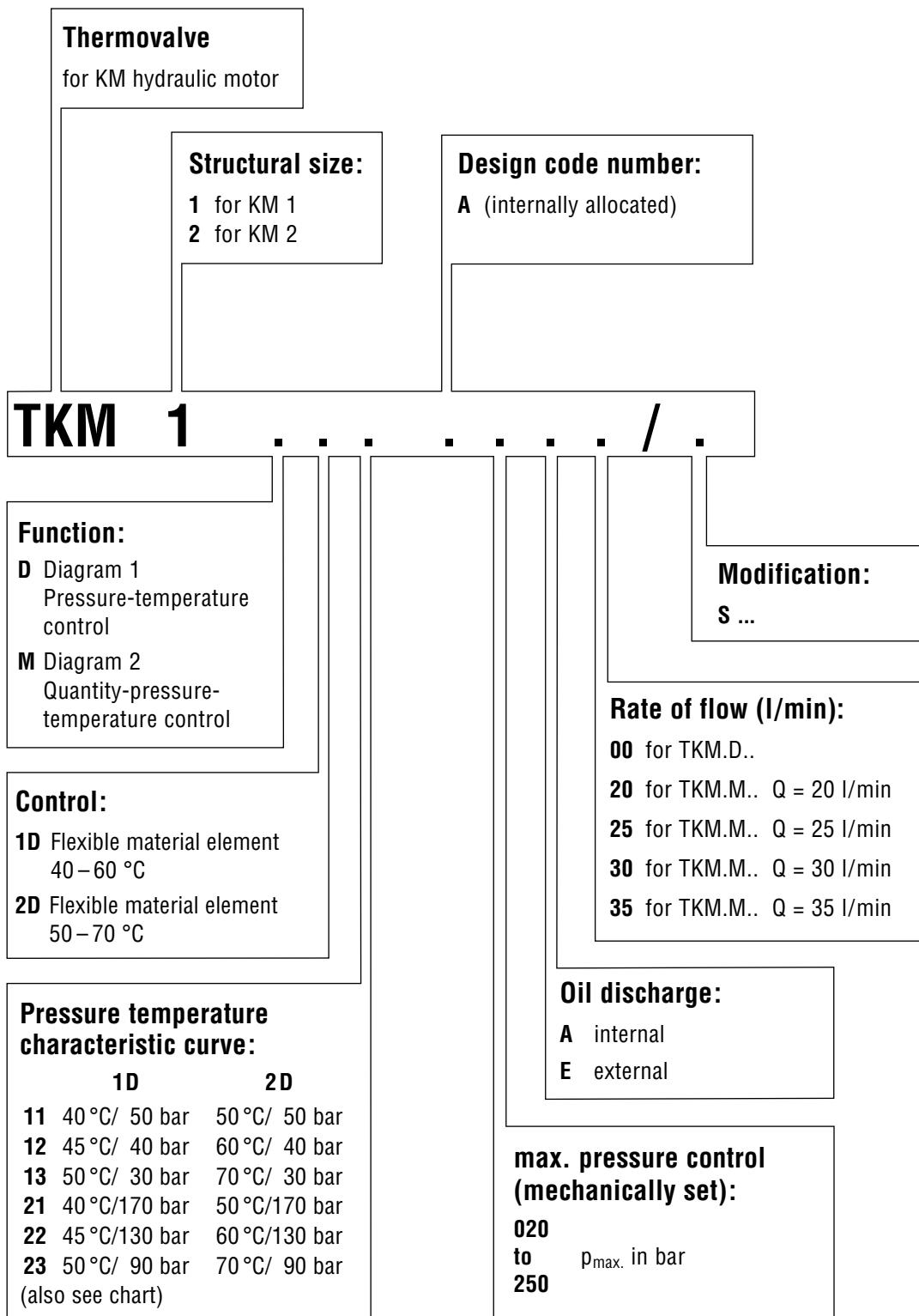


Direction of rotation shown:
right-handed
for left-handed direction of rotation,
the thermovalve is rotated by 180°.

Note: The existing oil discharge can only be converted in the factory.
(Attention: Connection "L" must not be sealed.)

Gear motor with thermovalve KM 1 + TKM

Type TKM 1

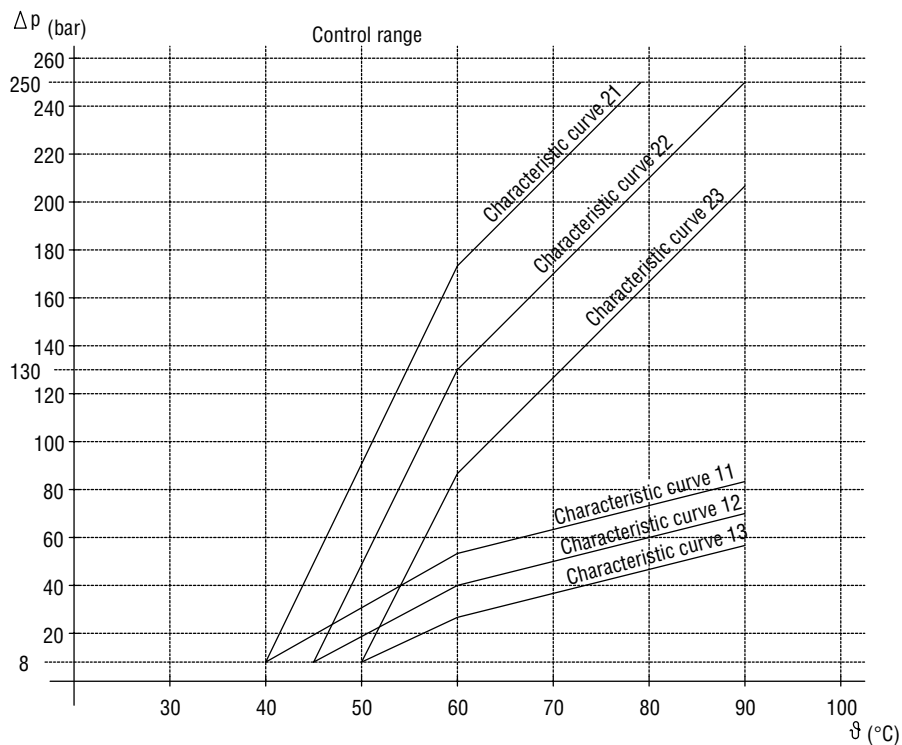


See KM 1 – KM1.d.05.2000 leaflet.

Gear motor with thermovalve KM 1 + TKM

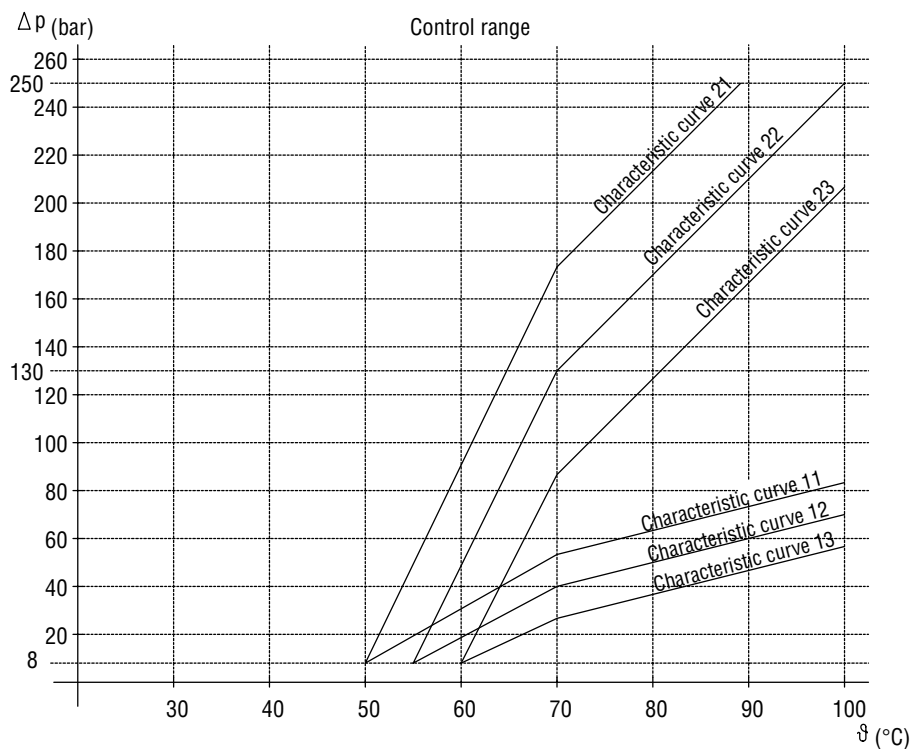
Pressure-temperature characteristic curve – 1D

Control: 1D $\hat{=}$ $\vartheta = 40 - 60\text{ }^{\circ}\text{C}$ control range $\vartheta_{\text{max}} = 90\text{ }^{\circ}\text{C}$



Pressure-temperature characteristic curve – 2D

Control: 2D $\hat{=}$ $\vartheta = 50 - 70\text{ }^{\circ}\text{C}$ control range $\vartheta_{\text{max}} = 100\text{ }^{\circ}\text{C}$



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KM1+TKM.e.11.2002