

# Manifold Assemblies for 1-pipe systems

## Type RA-KE for floor connection

## Typ RA-KEW for wall connection



**Application**



The center distance between connection pipes is 35 mm, which allow system pipes to be connected using junction box.

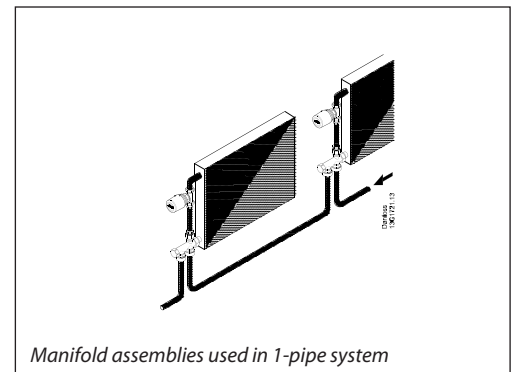
Danfoss manifold assemblies can be used with all RA 2000, RA PLUS and RAW sensors as well as thermal actuators, type TWA and ABNM.

A wide range of compression fitting for steel, copper, PEX and AluPex piping allows fast and flexible installation.

To avoid deposits and corrosion the water quality should comply to VDI 2035 guidelines.

The manifold assemblies RA-KE and RA-KEW are versatile control units for all types of radiators with standard 1/2" side connections. RA-KE and RA-KEW valves are for 1-pipe pumped systems.

The manifold assembly includes a manifold valve body with shut off facility, a connection pipe and a radiator valve body.



**Ordering and data**

| Product   | Type | Code no                            | Radiator connection<br>ISO 7-1       | System connection<br>ISO 228-1 | K <sub>vs</sub> -values (m <sup>3</sup> /h) <sup>1)</sup> | Max. operation pressure (bar) | Max. different. pressure <sup>2)</sup> (bar) | Test pressure (bar) | Max. water temp (°C) |
|---|------|------------------------------------|--------------------------------------|--------------------------------|---|-------------------------------|--|---------------------|----------------------|
| Valve body with angle piece <sup>3)</sup>             |      | <b>013G3362</b>                    | R 1/2                                | G 3/4                          | 2,5   | 10                            | 0,6  | 16                  | 120                  |
| Manifold valve RA-KE <sup>3)</sup>                    |      | <b>013G3366</b>                    |                                      |                                |   |                               |  |                     |                      |
| Manifold valve RA-KEW <sup>3)</sup>                   |      | <b>013G3368</b>                    |                                      |                                |   |                               |  |                     |                      |
| Connection pipe<br>L 650 x ø 15 mm<br>L 950 x ø 15 mm |      | <b>013G3378</b><br><b>013G3377</b> |                                      |                                |   |                               |  |                     |                      |
| Set-pack for floor connection                         |      | <b>013G3341</b>                    | Valve body and manifold valve RA-KE  |                                |   |                               |  |                     |                      |
| Set-pack for wall connection                          |      | <b>013G3343</b>                    | Valve body and manifold valve RA-KEW |                                |   |                               |  |                     |                      |

<sup>1)</sup> Capacity of manifold assembly. Bypass through radiator: 35 %.

<sup>2)</sup> The maximum differential pressure specified is the maximum pressure at which the valves give satisfactory regulation. As with any device which imposes a pressure drop in the system, noise may occur under certain flow/pressure conditions. To ensure quiet operation, maximum pressure drop should not exceed 30 to 35 kPa. The differential pressure can be reduced by using Danfoss differential pressure regulators.

<sup>3)</sup> Incl compression fittings for connection pipe

Accessories and spare parts

| Product                     | Code no  |
|-----------------------------|----------|
| Gland seal, units of 10 pcs | 013G0290 |

The gland seal can be replaced with system in operation .

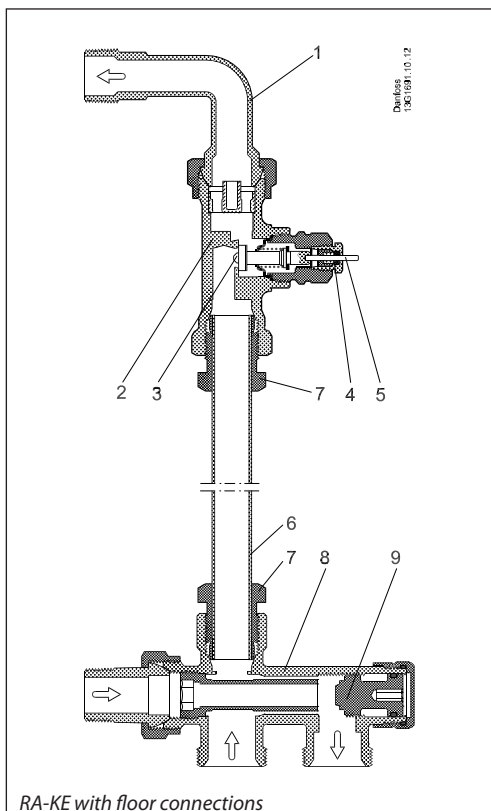
Capacity

Manifold assemblies RA-KE and RA-KEW are designed for zones up to 9 kW at  $\Delta t = 20$ . The radiator share is 35 %.

Please observe, that in systems with manifold assemblies not all radiators reach the capacities stated by their manufacturer. In case of doubt please contact the manufacturer for details.

In systems with RA-KE valves the flow is almost constant. In order to keep differential pressure low, it is recommended to use a differential pressure controller.

Design



A manifold assembly is compiled by parts, which are ordered separately:

- Valve body, incl angle piece and compression fittings for connection pipe
- Connection pipe, 15 mm
- Manifold valve with bypass, incl compressions fittings for connection pipe
- Compression fittings for system connections

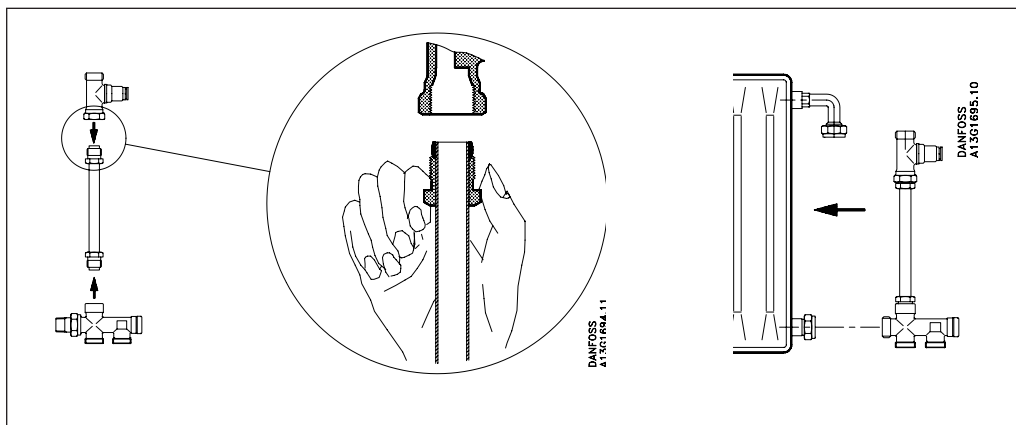
Alternatively valve body and manifold valves are available in setpacks

1. Angle
2. Valve body
3. Valve cone
4. Gland seal
5. Pressure pin
6. Connection pipe
7. Compression fittings
8. Manifold valve
9. Shut off

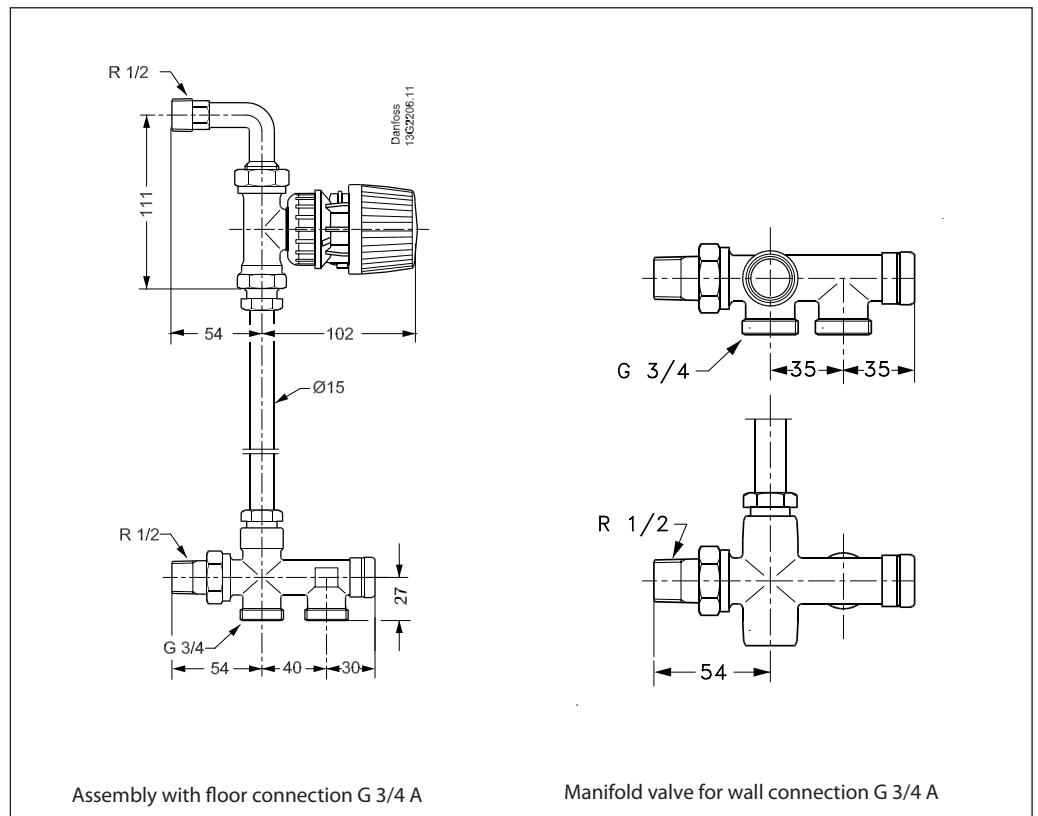
Materials in contact with water

|                               |              |
|-------------------------------|--------------|
| Spring seat                   | Zinnbronze   |
| O-rings                       | EPDM         |
| Valve cone                    | NBR          |
| Pressure pin and valve spring | Chrome steel |
| Connection pipe               | Steel        |
| Valves and other metal parts  | Ms 58        |

Installation



Dimensions



Assembly with floor connection G 3/4 A

Manifold valve for wall connection G 3/4 A

