

Installation Guide

Pressure Control, types RT 1AE, RT 6AEW, RT 6AEB, RT 6AES, RT 116E, RT 5E, RT 117E, RT 112E, RT 113E, RT 260AE, RT 262AE

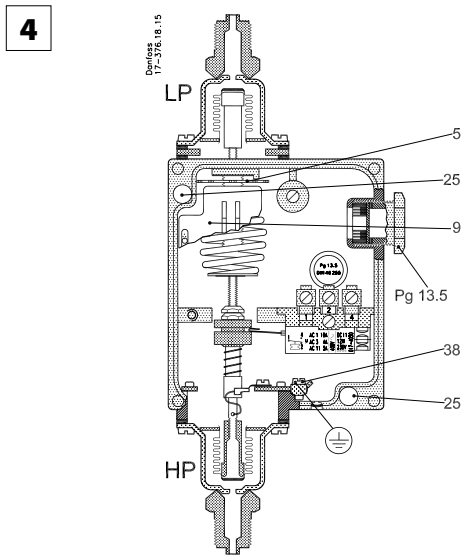
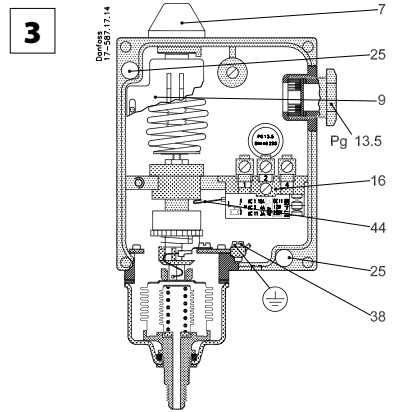
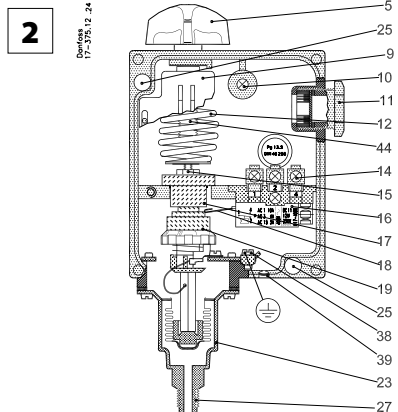
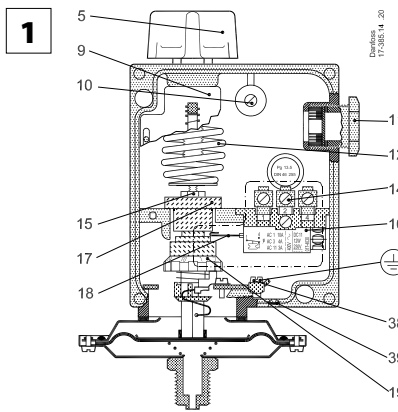
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Refrigerants:

R 717 ¹⁾, HCFC, HFC and HC

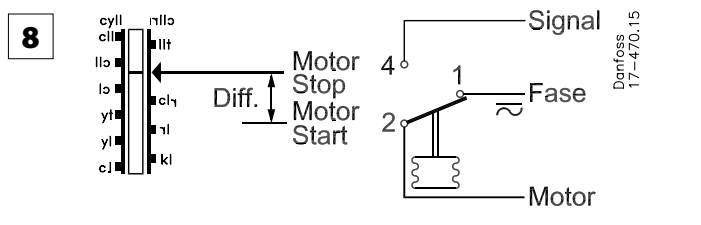
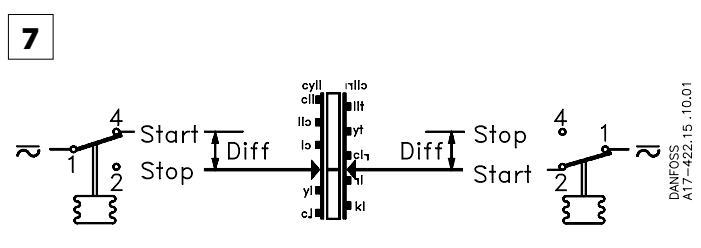
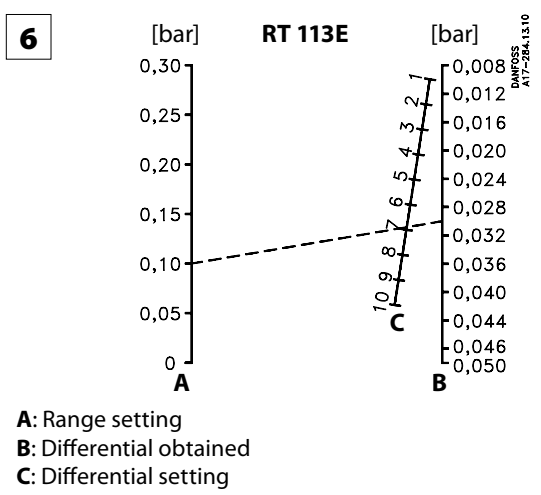
¹⁾ Only types with letter A are suitable for R 717



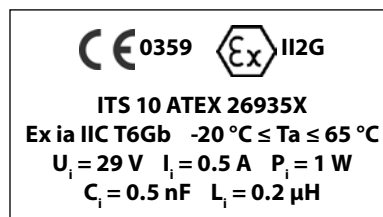
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	1	2	3	4	5	6	7	8	9	10	
RT 1AE	0,5	0,7	0,9	1,1	1,3	1,5	1,5				bar
RT 5E	1,2	1,6	2,0	2,4	2,8	3,2	3,6	4,0			bar
RT 112E	0,07	0,085	0,10	0,115	0,13	0,145	0,16				bar
RT 113E	0,01	0,02	0,03	0,035	0,04	0,05					bar
RT 116E	0,3	0,5	0,7	0,9	1,1	1,3					bar
RT 117E	1,0	1,3	1,5	2,0	2,5	3,5	4,0				bar

Min. 1 2 3 4 5 6 7 8 9 10 Max. 10
Danfoss 17-883.10



Product marking



Technical data

Maximum Working Pressure:

Type	RT 113E	RT 112E	RT 1AE	RT 116E	RT 5E	RT 6AE	RT 117E	RT 260AE	RT 262AE
MWP [bar]	0.4	7	22	22	22	34 ¹⁾	42	22	11

¹⁾28 bar P_e when used as safety equipment acc. to EN12263

Permissible ambient temperature:	-20 – 65 °C
Intrinsically safe specification:	Ui = 29 V Ii = 0.5 A Pi = 1 W Ci = 0.5 nF Li = 0.2 μH
Contact load:	max. 100 mA, 30 V a.c. / d.c.
	min. 1 mA, 5 V a.c. / d.c.

Installation

The RT pressure switch is designed for fitting on the valve panel or the compressor. Use the mounting holes (25). If the unit can be exposed to vibration, it should be mounted on a resilient pad. If pressure pulsations occur in the system at the point where the pressure switch is connected, these should be effectively damped, as for example, by connecting the RT unit to the system via damping coil.

Electrical connection

See fig. 7 and fig. 8.

START = make. STOP = break. DIFF = differential.

Cable diameter: 6 – 14 mm

The earth terminal (38) should be connected to earth.

Adjustment

RT 1AE, RT 116E, RT 5E, RT 117E, RT 112E, RT 113E

See fig. 1, fig. 2 and fig. 7

Set the pressure switch for minimum actuating pressure (range setting). Setting is done by rotating the knob (5), at the same time reading the main scale (9).

The differential is set by rotating the differential adjusting nut (19) according to the nomogram concerned (fig. 5 or fig 6).

Maximum actuating pressure is the sum of the pressure setting and the differential.

RT 260AE, RT 262AE

See fig. 4 and fig. 7

Set the required differential pressure with the setting disc (5) while at the same time reading the scale (9).

RT 6AEW, RT 6AEB, RT 6AES

See fig. 3 and fig. 8

After removing the seal cap (7), set the cut out pressure with the uncovered range spindle while reading the scale (9).



Safety requirements

1. The refrigeration system must always comply with European Ex installation standard, EN 60079-14, any local directive and legislation as well as any other regulation applying in the area of installation.
2. RT-E switch must be used only with reliable means of limiting the voltage and current to prevent sparks between the contact surfaces. The equipment to be used for electrical load limiting must always be approved for use in the zone concerned.
3. Cable and cable entries approved for the application must be used. Cables must not be in contact with sharp edges. The cable must be connected with adequate stress relief in order to prevent that pulling forces can be carried through the cable to the terminal.
4. In the event of pressure pulsations in the system, where the switch is connected, these must be effectively damped to prevent fatigue failure on the bellows. The cycle frequency of the RT-E switch must be kept as low as possible. The vibration level must be kept as low as possible.
5. It is recommended to regularly check the function of the RT-E switch.
6. Only apparatus designed, constructed and released by Danfoss must be used for application concerned. Danfoss can accept no responsibility in case of alterations made on the pressure switches or the use of them against the instructions of Danfoss.
7. Any overload of the RT switch must be prevented. Overloaded or damaged apparatus must be exchanged.
8. Only authorised persons, who are certified in installing and maintaining refrigeration system may do the installation, maintenance and exchange of the switch.
9. Use only appropriate tools
10. Dispose of the switch in an environmentally-friendly way.
11. RTE switches must be installed in area where is low risk of mechanical damage.