

017R9519

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Pressure controls
 RT1AE, RT6AEW, RT6AEB, RT6AES, RT116E, RT5E,
 RT117E, RT112E, RT113E, RT260AE, RT262AE

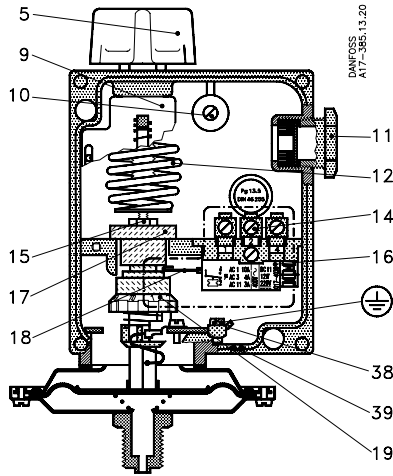


Fig. 1

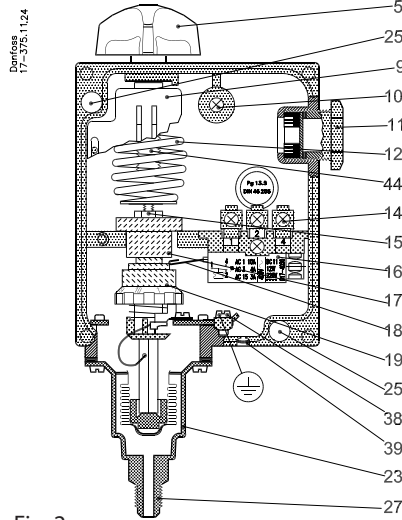


Fig. 2

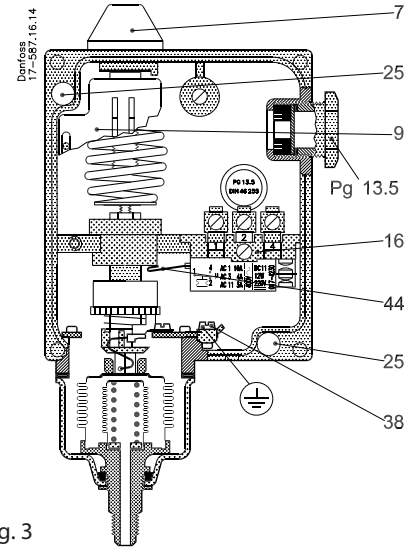


Fig. 3

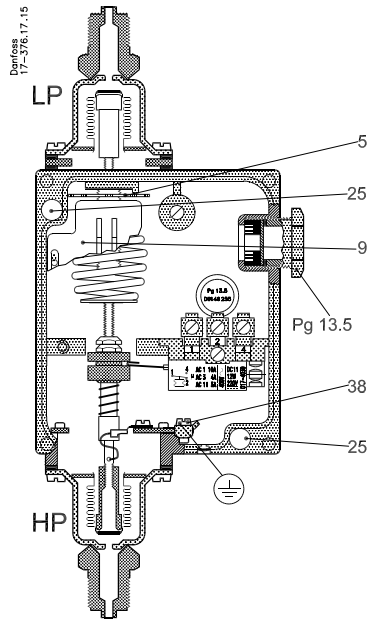


Fig. 4

	1	2	3	4	5	6	7	8	9	10	
RT 1 RT 1A	0.5	0.7	0.9	1.1	1.3	1.5	1.6				bar
RT 5 RT 5A	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0			bar
RT 112	0.07	0.085	0.10	0.115	0.13	0.145	0.16				bar
RT 113	0.01	0.02	0.03	0.04	0.05						bar
		0.015	0.025	0.035	0.045						
RT 116	0.3	0.5	0.7	0.9	1.1	1.3					bar
RT 117	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

Fig. 5

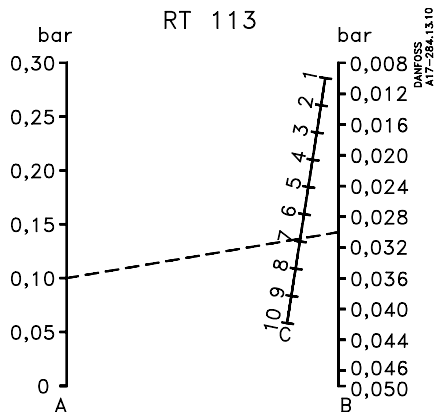


Fig. 6

RT113:
 A: Range setting
 B: Differential obtained
 C: Differential setting

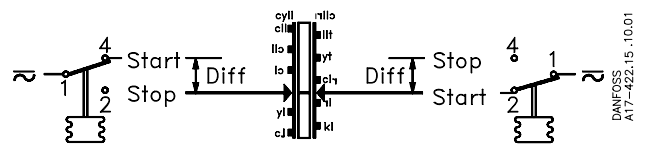


Fig. 7

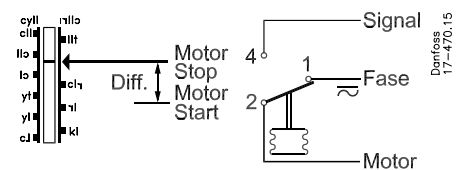


Fig. 8

Product marking

0539 II2G
DEMKO 05 ATEX 135385X
EEx ia IIC T5 $-20^{\circ}\text{C} \leq \text{Ta} \leq 65^{\circ}\text{C}$
U_i : 29V **L_i : 0.2μH**
I_i : 0.5A **C_i : 0.5nF**
P_i : 1W

Technical data

Maximum Working Pressure:

Type	RT113E	RT112E	RT1AE	RT116E	RT5E	RT6AE	RT117E	RT260AE	RT262AE
MWP [bar]	0.4	7	22	22	22	34	42	22	11

 Permissible ambient temperature: -20°C to $+65^{\circ}\text{C}$

Intrinsically safe specification:

 $U_i = 29\text{V}$ $I_i = 0.5\text{A}$ $P_i = 1\text{W}$ $C_i = 0.5\text{nF}$ $L_i = 0.2\mu\text{H}$

Contact load: max. 100 mA, 30V a.c./d.c.

min. 1 mA, 5V 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
RT1AE, RT116E, RT5E, RT117E, RT112E, RT113E

(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.

RT260AE, RT262AE (fig. 4 and fig. 7)

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

RT6AEW, RT6AEB, RT6AES (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.