Danfoss RT 260A Differential Pressure Switch Installation Guide

Contents

Danfoss RT 260A Differential Pressure Switch

Installation

RT 262 AL

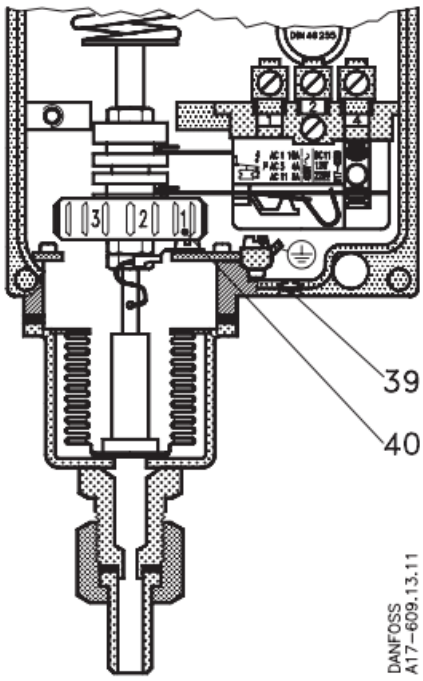


Fig. 2

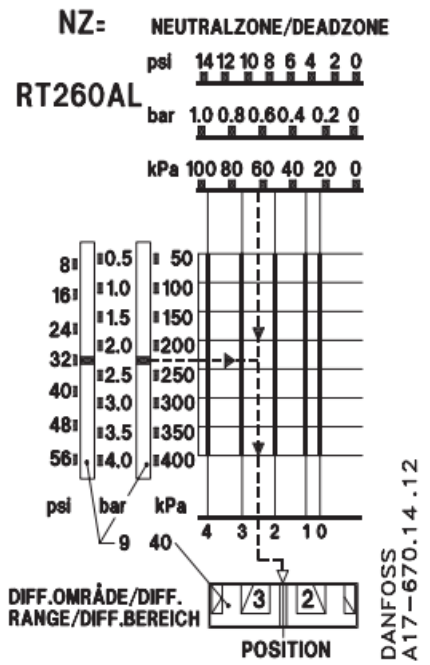

NZ= NEUTRALZONE/DEADZONE
RT260AL
psi 14 12 10 8 6 4 2 0
bar 1.0 0.8 0.6 0.4 0.2 0
kPa 100 80 60 40 20 0
8 16 24 32 40 48 56
0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0
50 100 150 200 250 300 350 400
psi bar kPa
9 40
4 3 2 1 0
DIFF.OMRÅDE/DIFF. RANGE/DIFF.BEREICH
3 2
POSITION
DANFOSS A17-670.14.12

Fig. 7

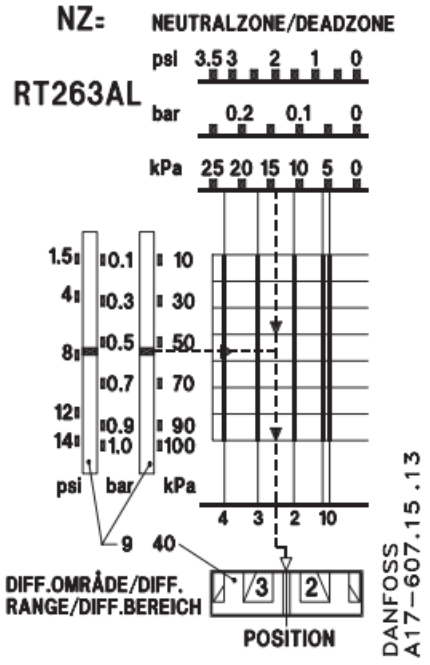

NZ= NEUTRALZONE/DEADZONE
RT263AL
psi 3.5 3 2 1 0
bar 0.2 0.1 0
kPa 25 20 15 10 5 0
1.5 4 8 12 14
0.1 0.3 0.5 0.7 0.9 1.0
10 30 50 70 90 100
psi bar kPa
9 40
4 3 2 10
DIFF.OMRÅDE/DIFF. RANGE/DIFF.BEREICH
3 2
POSITION
DANFOSS A17-607.15.13

Fig. 8

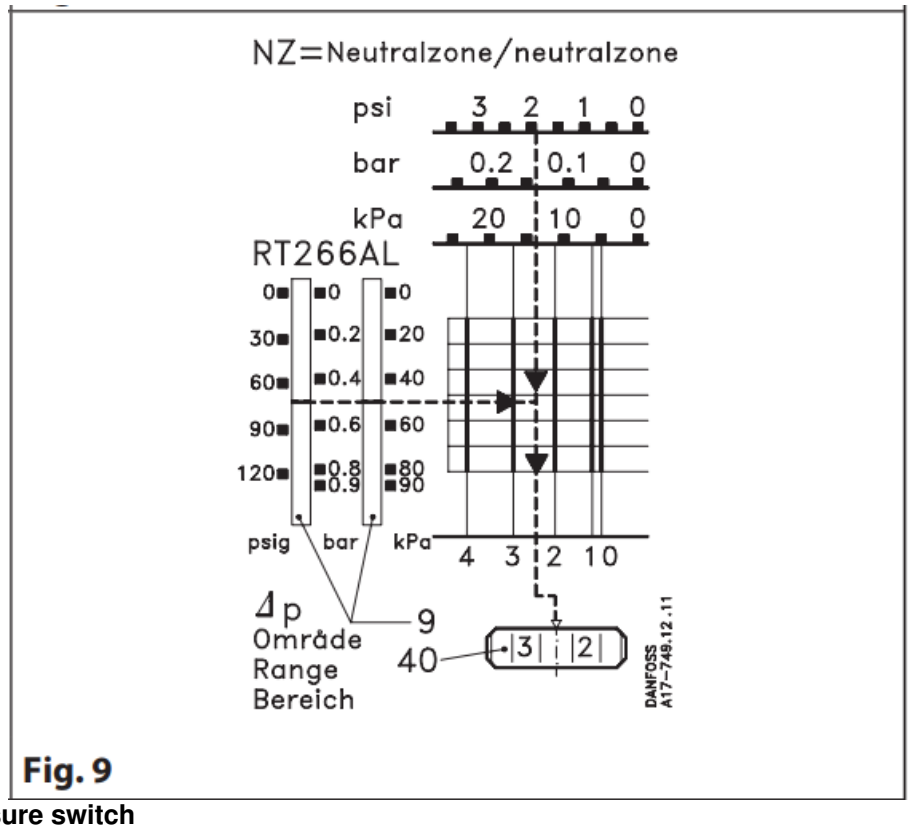


Fig. 9

Differential pressure switch
RT 260A, RT 262A, RT 265A, RT 260AL,
RT 262AL, RT 263AL, RT 266AL

Refrigerants*):
R22, R134a, R404A, R407A, R407C, R407F, R422B, R422D, R507A, R717

Differential pressure switches
*) For a complete list of approved refrigerants, visit www.products.danfoss.com and search for individual code numbers, where refrigerants are listed as part of the technical data.

Technical data

Type	Differential pressure range p [bar]	Operation range for LP below [bar]	Mechani- cal differen- tial [bar]	Max. working pressure MWP [bar]
RT 260A	0.5 – 4	-1 – 18	0.3	22
RT 260A	0.5 – 6	-1 – 36	0.5	42
RT 260A	1.5 – 11	-1 – 31	0.5	42
RT 262A	0.1 – 1.5	-1 – 9	0.1	11
RT 265A	1 – 6	-1 – 36	0.5	42
RT 260AL	0.5 – 4	-1 – 18	0.3	22
RT 262AL	0.1 – 1.5	-1 – 9	0.1	11
RT 263AL	0.1 – 1.0	-1 – 6	0.05	7
RT 266AL	0 – 0.9	-1 – 6	0.05	7

- Neutral zone, p Nz
- RT 260AL: 0.3 bar – 0.9 bar
- RT 262AL: 0.1 bar – 0.33 bar
- RT 263AL: 0.05 bar – 0.23 bar
- RT 266AL: 0.05 bar – 0.23 bar
- Max. test pressure, p’ = 1.1 × MWP
- Permissible temperature range: -40 °C – 70 °C

Contact load

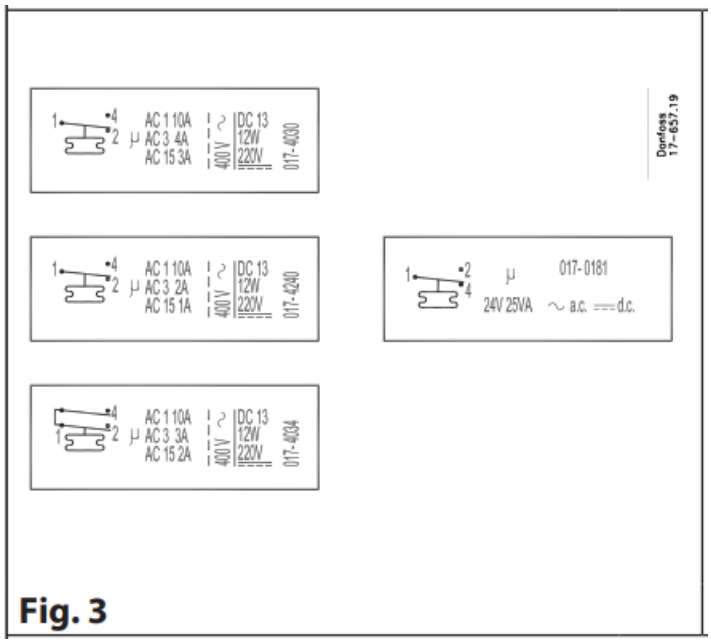


Fig. 3

See contact cover or fig. 3. If the contact load is given as, for example, 10 (4) A, 400 V AC, it means that the connected load must be max. 10 A ohmic and 4 A inductive at 400 V AC. The permissible starting current on motor cut-in can be up to seven times the inductive load, but max. 28 A. The switch meets the requirements of VDE* 0660.

***VDE = Verband Deutscher Elektrotechniker**

Installation

A set of PG13.5 cable glands is attached to the RT in a separate bag. To ensure IP66 (units with automatic reset) or IP54 (units with external reset) grade of RT enclosure it is necessary to assemble this gland as shown in the fig. 4. If this gland is not used with a cable, a metal blinding should also be assembled.

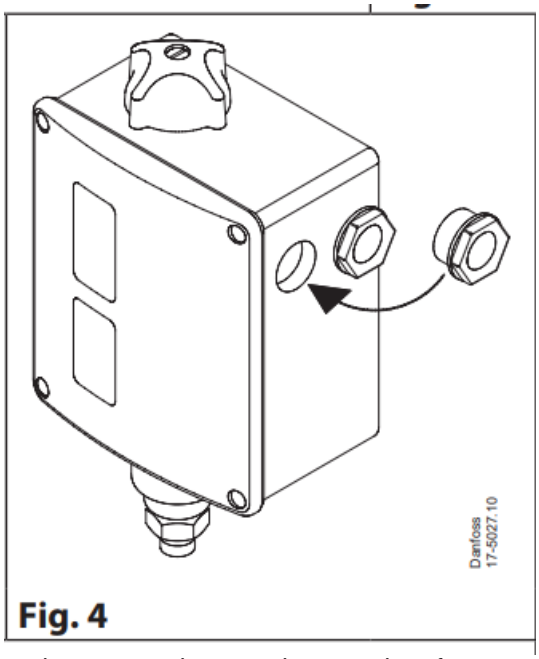
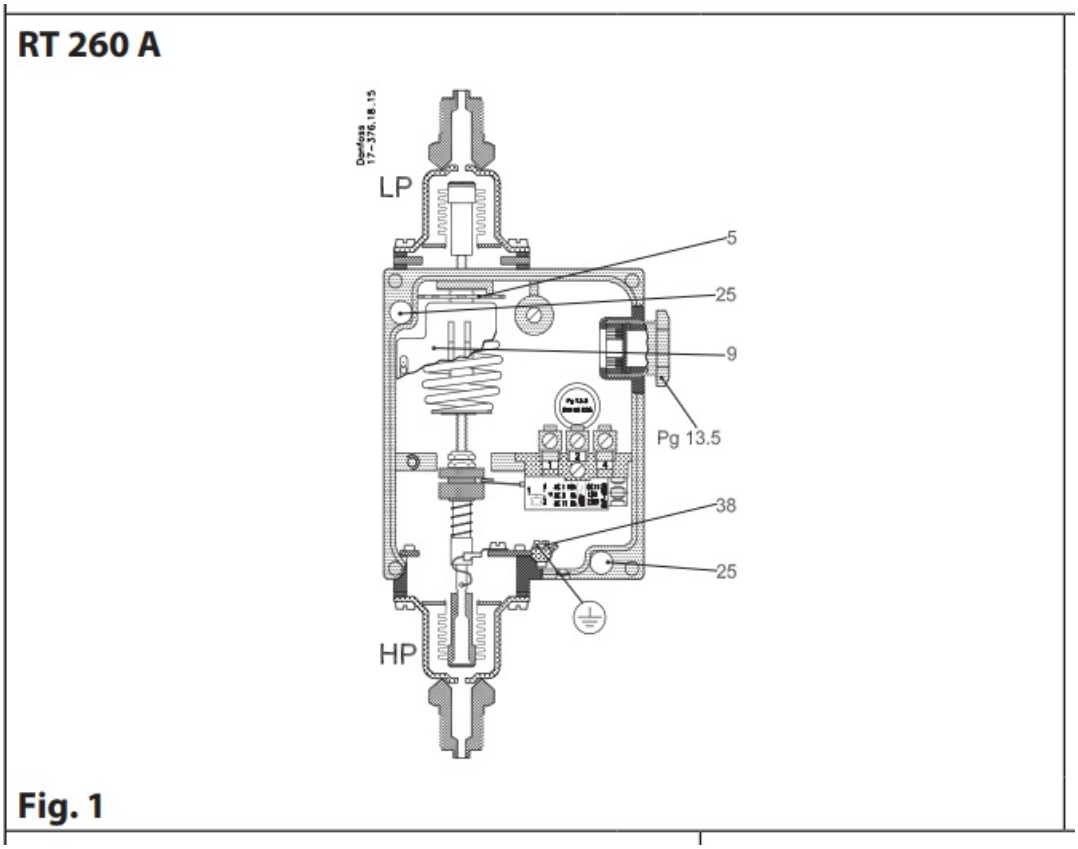


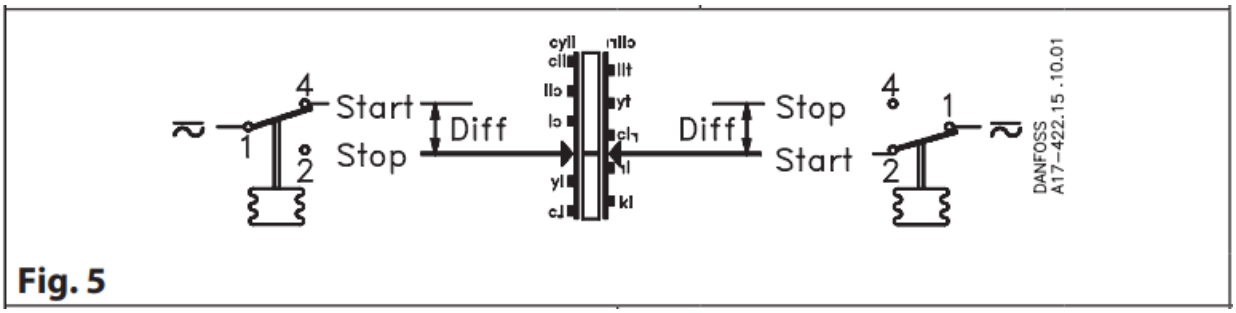
Fig. 4

The differential pressure control must be mounted on a valve panel or, for example, directly on a compressor. Use the fixing holes (25). If the unit can be exposed to vibration, it should to be mounted on a resilient pad.
The product must always be mounted vertically with the LP side placed on the top and the HP side placed on the bottom (as shown in Figure 1).



Electrical connection

See fig. 5.



START = make. STOP = break DIFF = fixed contact differential Cable diameter: 6 – 14 mm Connect earth to the earth screw (38)
Set the required differential pressure with the setting disc (5) while at the same time reading the scale (9). Find the required neutral zone for RT 260AL, RT 262AL, RT 263AL, RT 266AL from the diagram. The setting value for the neutral zone (40) can be read from the lowest scale on the diagram.

Example 1
RT 262A with terminals 1 – 4 connected. Set differential pressure p = 0.5 bar. The RT 262A breaks at a differential pressure of 0.5 bar and makes at a differential pressure + contact differential = 0.5 bar + 0.1 bar = 0.6 bar.

Example 2

RT 262AL
Required differential pressure p = 0.5 bar. Required neutral zone Nz = 0.25 bar. As can be seen on the diagram, fig. 6. The required neutral zone of 0.25 bar is obtained by setting the neutral zone disc (40) at 2.5. Because the contact differential is 0.1 bar, the make and break differential pressures for the switch are:

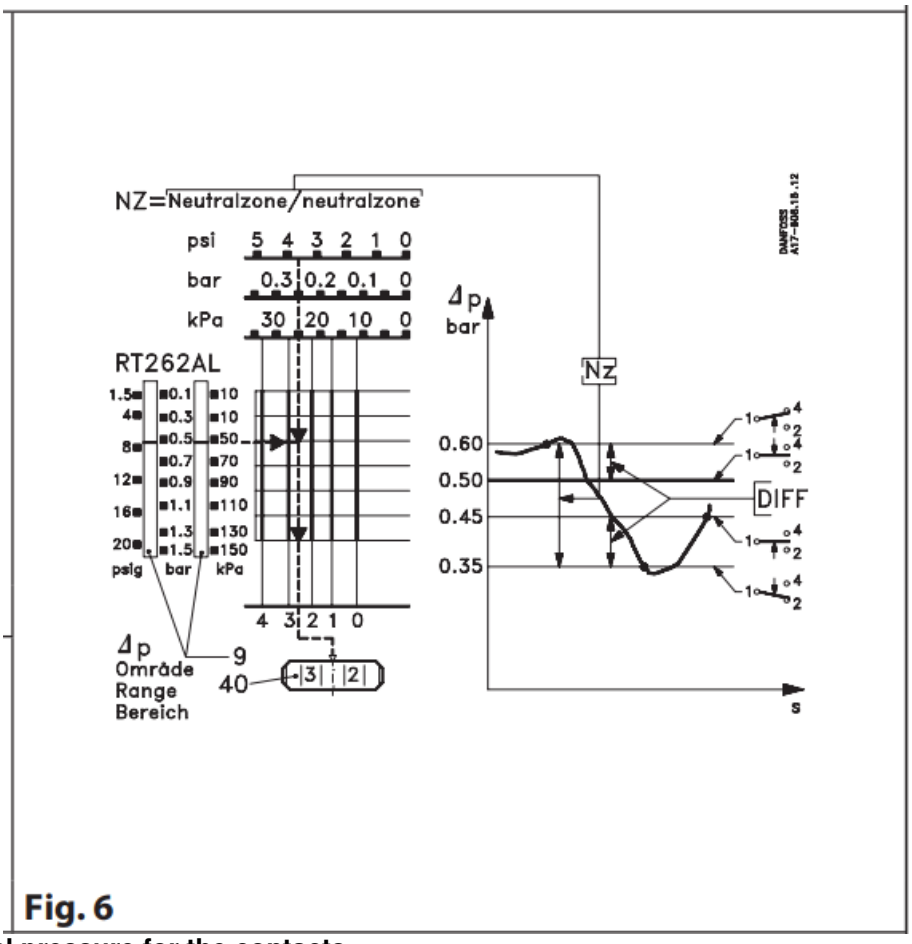


Fig. 6

Make a differential pressure for the contacts

- 1 – 4 = 0.5 bar + 0.1 bar = 0.6 bar. Break the differential pressure for contacts
- 1 – 4 = 0.5 bar (= set value p). Make a differential pressure for contacts
- 1 – 2 = 0.6 bar – 0.25 bar = 0.35 bar. Break the differential pressure for contacts
- 1 – 2 = 0.35 bar + 0.1 bar = 0.45 bar.

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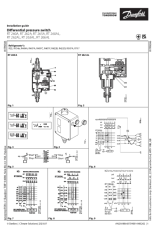
Info for UK customers only: Danfoss Ltd., 22 Wycombe End, HP9 1NB, GB

Documents / Resources

	Danfoss RT 260A Differential Pressure Switch [pdf] Installation Guide RT 260A, RT 262A, RT 265A, RT 260AL, RT 262AL, RT 263AL, RT 266AL, RT 260A Differential Pressure Switch, RT 260A, Differential Pressure Switch, Pressure Switch

References

- Engineering Tomorrow | Danfoss

- **User Manual**