



## Danfoss RT Series Pressure Switch Installation Guide

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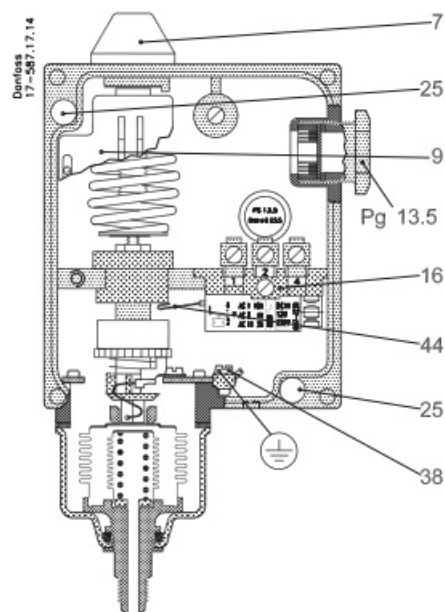
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**Danfoss RT Series Pressure Switch**



## OVERVIEW



## Dimension

RT 6AW, RT 6AB, RT 6AS

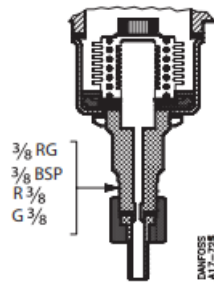


Fig. 2  
RT 30AW, RT 30AB, RT 30AS

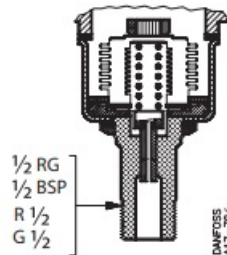
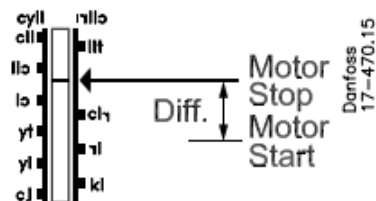


Fig. 3

## Pressure switches

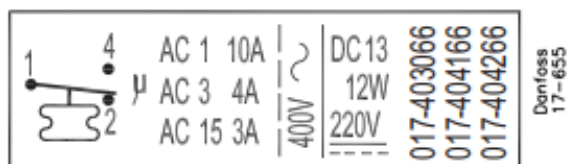
- For a complete list of approved refrigerants, [www.products.danfoss.com](http://www.products.danfoss.com), and search for individual code numbers, where refrigerants are listed as part of technical data.
  - Only for RT 6AW, RT 6AB, RT 6AS, RT 30AW, RT 30AB, RT 30AS
  - **Tested and approved by TÜV (Technischer Überwachungs Verein).**
  - **W** = Druckwächter (pressure control)
  - **B** = Druckbegrenzer (pressure limiter)
  - **S** = Sicherheitsdruckbegrenzer (safety pressure limiter)
  - In accordance with EN 12263 regulations, rupture of the control regulating bellows will have the effect that the refrigeration compressor stopping, and cannot be restarted until the pressure control has been replaced. If the outer bellows rupture, the control cut-out pressure falls by approx. 4 bar below the setting. The control, therefore, breaks the circuit at normal condensing pressure, resulting in a fail-safe function. Common features of all designs
  - When the pressure in the system exceeds the setting, the control automatically stops the system.
  - **In particular**
  - RT 6W, RT 6AW, and RT 30AW cut in automatically when the pressure has fallen below the setting with the p differential (fixed) value. RT 6B, RT 6AB, and RT 30AB can be reset by depressing the external reset button when the pressure has fallen below the setting with a p differential value (fixed).
  - RT 6S, RT 6AS, and RT 30AS can be reset by depressing the internal reset button when the pressure has fallen below the setting with a p differential value (fixed).
- p – differential values (fixed) – according to the table fig. 10 (see also fig. 5).



**Fig. 5**

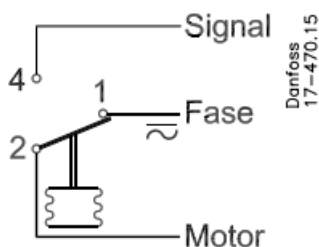
## Technical data

- See fig. 10. Contact load: see switch cover or fig. 4.

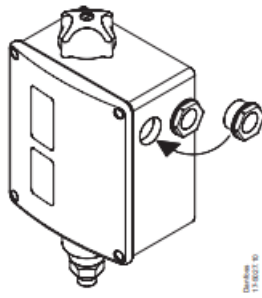


**Fig. 4**

- E.g. marking 10 (4) A, 400 V ~ means that a max. A load of 10 A ohmic and 4 A inductive may be connected on 400 V.
- The max. starting current on motor cutin (L.R.) may be up to seven times the inductive load,
- RT complies with conditions as specified in VDE\* 0660, Test Class II.
- VDE = Verband Deutscher Elektrotechniker
- **Fitting**
- 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 fig. 7. If this gland is not used with a cable, a metal blinding should be also assembled.



**Fig. 6**



**Fig. 7**

- Use the mounting holes 25,  $\varnothing 5$  mm.
- The pressure control can be mounted on the valve panel or on the compressor itself.
- If the control is likely to be subjected to vibration, it should be mounted on a resilient base.
- If pressure pulsations occur in the system at the point where the pressure control is connected, these should be effectively damped, for example, by connecting the RT unit to the system via capillary tubing. See fig. 8.

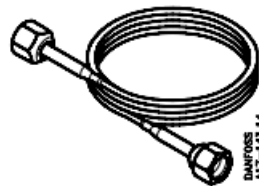
### Electrical connection

- See fig. 6.
- **FASE** = phase.
- **Cable diameter:** 6 – 14 mm.
- Earth connection to earth terminal 38.

### Setting

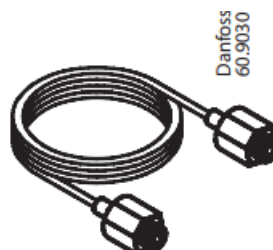
- After removing the seal cap 7, set the cut out pressure with the uncovered range spindle while reading the scale 9. Turning the range screw clockwise increases setting of the cut out pressure, turning it anticlockwise decreases setting of the cut out pressure. Accessories See figs. 8 and 9.

**RT 6, RT 36:**  
1m,  $\frac{1}{4}$  in x  $\frac{1}{4}$  in flare  
**Code no.**  
**060-007166**



**Fig. 8a**

**RT 6, RT 36:**  
1m,  $\frac{3}{8}$  in x M10 – 0.75  
**Code no.**  
**060-008266**



**Fig. 8b**  
**Code no.**  
**017-425166**



**Fig. 9**

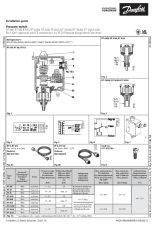
Type /	Enclosure <sup>(1)</sup>	Reset	Pressure range  [bar]	Differential (fixed)	Refrigerants	Max. working press.	Max. test press.  [bar] / [psig]	Ambient temp.
RT 6W	IP66	automat.	5 – 25	3.0	fluorinated refrigerants	28 / 406	38 / 551	-40 – 70 <sup>(2)</sup>
RT 6B	IP54	man. ext.	10 – 28	max. 1.0				
RT 6S	IP66	man. int.						
RT 6AW	IP66	automat.	5 – 25	3.0	R 717 (NH <sub>3</sub> ) + fluorinated refrigerants	22 / 319	25 / 363	
RT 6AB	IP54	man. ext.	10 – 28	max. 1.5				
RT 6AS	IP66	man. int.						
RT 30AW	IP66	automat.	1 – 10	0.8				
RT 30AB	IP54	man. ext.		max. 0.4				
RT 30AS	IP66	man. int.						

Fig. 10


<sup>(1)</sup> according to / i.h.t. / nach / conformément à EN 60529 / IEC 529 <sup>(2)</sup> -50 – 70 °C without PED

**Fig. 10** <sup>(1)</sup> according to / i.h.t. / nach / conformément à EN 60529 / IEC 529 <sup>(2)</sup> -50 – 70 °C without PED

## Documents / Resources

	<p><a href="#">Danfoss RT Series Pressure Switch</a> [pdf] Installation Guide</p> <p>RT 6W, RT 6B, RT 6S, RT 6AW, RT 6AB, RT 6AS, RT 30AW, RT 30AB, RT 30AS, RT Series P ressure Switch, RT Series, RT Series Switch, Pressure Switch, Switch</p>
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## References

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