ENGINEERING
TOMORROW

Data Sheet

Pressure switch and Thermostat Type **KP** and **KPI**

For industrial applications

The KP and KPI pressure switches and thermostats are used for control, monitoring and alarm systems in a wide variety of industry applications.

KP pressure switches are mainly used for gaseous fluid whereas KPI pressure switches are more for liquid and gaseous fluid. The products are available in IP30 enclosure as well as IP55 enclosure.

The KP pressure range include special designed pressure switches and limiters for steam boilers and other heating applications.

For water pump control and protection (dry run) the dual pressure switch KP44 is suitable and secure improved life time of the water pump.

Features

Features

- Wide setting range
- Shock and impact resistant
- Snap action electrical contacts minimize chatter, bounce, and wear, and ensure long term electrical and mechanical reliability
- Small dimensions - space saving and easy to install in panels
- Electrical connection from front of the unit makes rack mounting easier and also saves space
- Suitable for alternating current and direct current
- Single pressure switches and thermostats are fitted with a single pole double throw contact system (SPDT)
- Can be used for both liquids and gases (KPI)
- Manual trip function enables electrical connections verification without any tools or pressure changes in the application
- Versions with automatic and manual reset available
- For demineralized water, there are special KP models with wetted parts made of stainless steel (AISI 316L)

Functions

KP and KPI Pressure switch

Figure 1: Key sketch of KP pressure switch

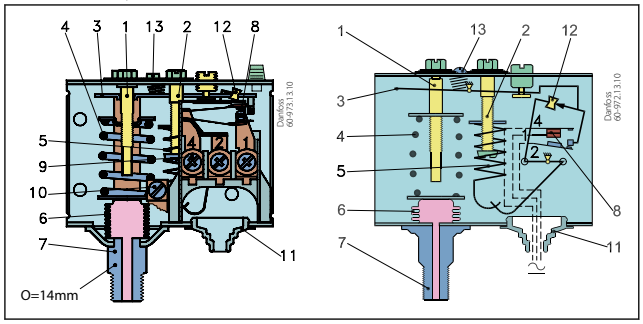


Figure 2: Key sketch of KPI pressure switch

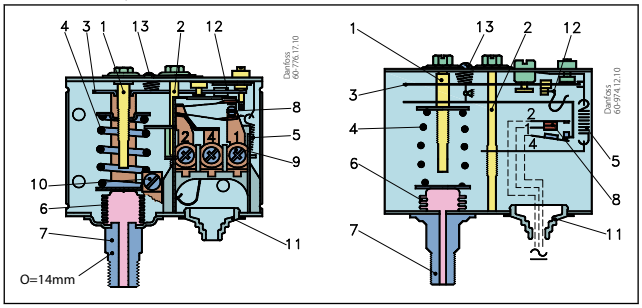
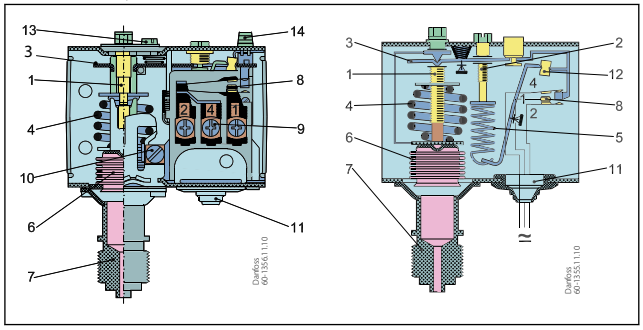


Figure 3: Key sketch of KP pressure switch, boiler version



1	Setting spindle	**8**	Contact system
2	Differential setting spindle	**9**	Connection terminals
3	Main arm	**10**	Earth terminal
4	Main spring	**11**	Cable entry
5	Differential spring	**12**	Omega spring (KPI)
6	Bellows	**12**	Tumbler (KP)
7	Pressure connector	**13**	Locking screw
		14	Manual reset

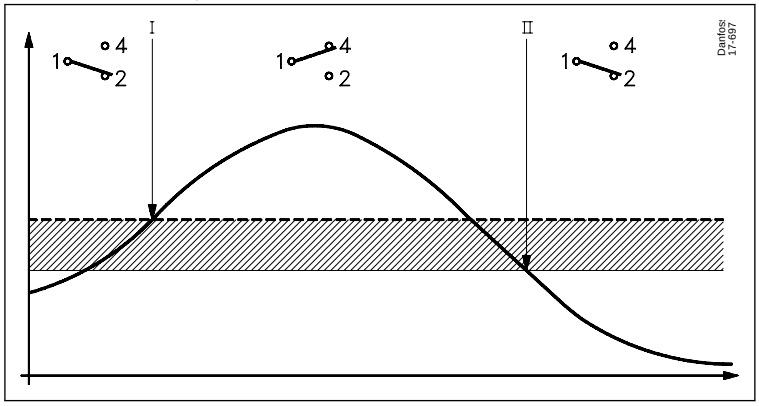
The contact system in KP pressure switches has a snap function. This means that the bellows is active only when the cut-in or cut out value is reached.

Danfoss KPI pressure switches are designed so that the bellows moves in the same proportion as the pressure changes.To ensure a snap function on contact change over, an omega spring is located between bellows and contact system.

Contact system function

When the pressure exceeds the set range value, contacts 1-4 make and contact 1-2 brake. The contacts changeover to their initial position when the pressure falls to the range value minus the differential (see Figure 4: Contact system function)

Figure 4: Contact system function



- - - -	Scale setting
	Mechanical differential

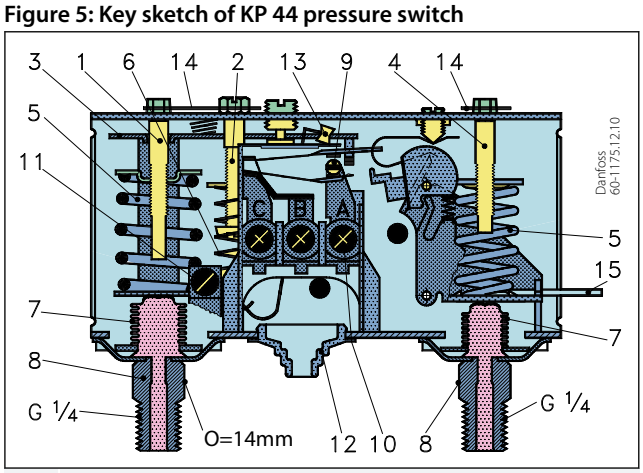
Contact function:
I. Alarm for rising pressure given at the set range value.

II. Alarm for falling pressure given at the set range value minus the differential.

Units with max. reset can only be reset at a pressure corresponding to the set range value minus the differential, or a lower pressure.

KP 44 pressure switch

Figure 5: Key sketch of KP 44 pressure switch



1	Lefthand pressure setting spindle	**9**	Contact system
2	Differential setting spindle	**10**	Terminal
3	Main arm	**11**	Earth terminal
4	Righthand pressure setting spindle	**12**	Cable entry
5	Main spring	**13**	Tumbler
6	Differential spring	**14**	Locking plate
7	Bellows	**15**	Impulse lever
8	Pressure connections		

Water supply from reservoir or well
The contact system in the KP 44 has a snap-action function and allows the bellows moves only when the cut-in or cut-out value is reached.

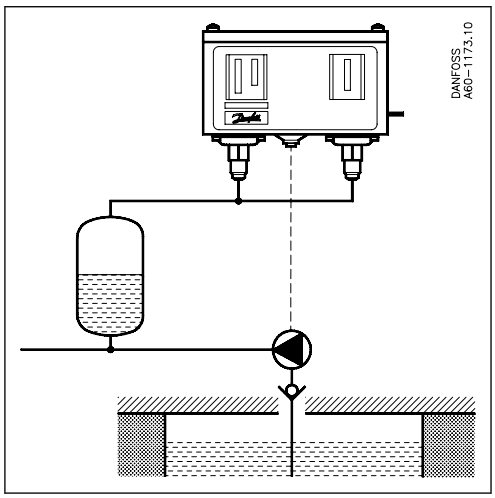
If water is running short in the well or reservoir, the pump will no longer be able to increase the pressure to the cut-out value. Consequently the pump will keep running - perhaps without water. However, the KP 44 pressure switch will stop the pump as soon as the righthand bellows pressure drops below the safety cut-out setting.

The pump can be started again by lifting the impulse lever. The pump will continue to operate when the impulse lever is released, provided that the righthand bellows pressure is higher than the safety cut-out setting plus a fixed differential of 1 bar. If this is not the case, the pump will cut-out again indicating insufficient water supply.

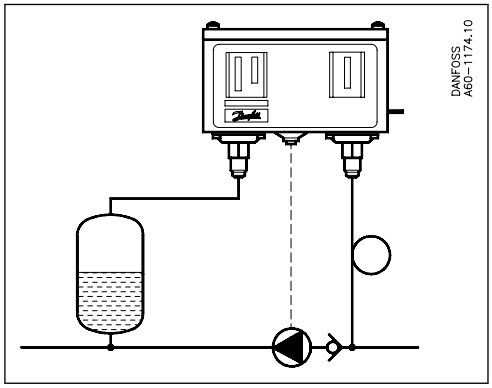
Pressurized water supply direct to pump

When water supply fails on the inlet side, the pump will no longer be able to boost the pressure to the cut-out value. Consequently the pump will keep running - perhaps without water. However, the KP 44 pressure switch will stop the pump as soon as the pressure in the pump suction line drops below the safety cut-out setting. The pump will automatically start again when the pump suction pressure has reached the level of 1 bar above the safety cut-out setting.

Automatic start-up will only take place if the righthand bellows is connected to the pump suction line. Air pockets should be avoided to prevent the pump from starting up on air pressure rise, without the presence of water.



In a hydrophore system where water is pumped from a well or an open tank, both bellows are connected to a pressure outlet on the air side in the pump pressure line, if possible.



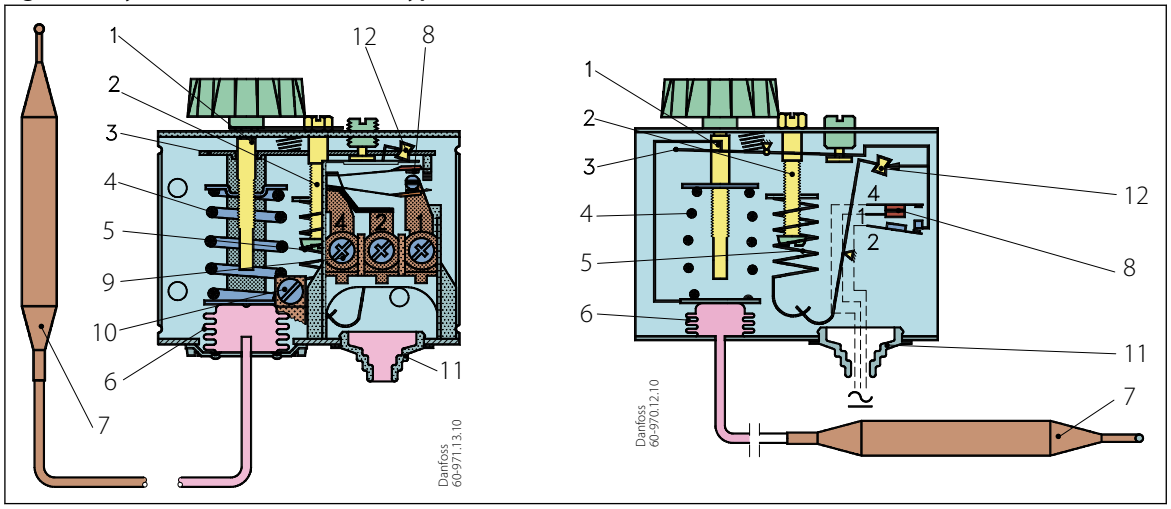
In a booster system receiving pressurized water the righthand bellows is connected

- to the low pressure side of the pump forautomatic start-up
- to the high pressure side of the pump for manual start-up

The lefthand bellows is always connected to the high pressure side of the pump.

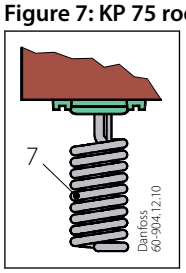
KP thermostat

Figure 6: Key sketch of KP thermostat, types KP 78, KP 79, KP 81



1	Temperature setting spindle	**7**	Sensor
2	Differential setting spindle	**8**	Contact system
3	Main arm	**9**	Connection terminals
4	Main spring	**10**	Earth terminal
5	Differential spring	**11**	Cable entry
6	Bellows	**12**	Tumbler

Figure 7: KP 75 room sensor



The contact system in KP thermostats has a snap function. This means that the bellows is active only when the cut-in or cut-out value is reached.

Product specification

Technical Data

Single pressure switch

Table 1: Single pressure switch

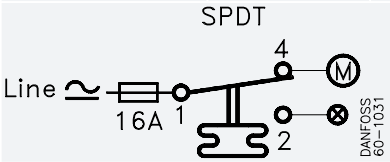
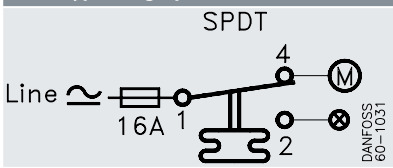
Description		KP 35, KP 36	KPI 35, KPI 36	KPI 38	KP 34, KP 35, KP 36, KP 37 boiler version
Ambient temperature [°C]		-40 – 65 °C (for max. 2 hours up to 80 °C)			
Media temperature [°C]		-40 – 100 °C			
Fluid		Gaseous media	Gaseous media and liquids		Steam, air, gaseous media & liquids
Parts in contact with fluid	Bellows	Phosphor bronze or Stainless steel	Phosphor bronze		Stainless steel
	Pressure connector	Free-cutting steel (nickel plated) or Stainless steel	Brass	Free-cutting steel (nickel plated)	
Contact system		 Single-pole double throw (SPDT)			
Contact load, Silver		**Alternating current:** AC-1: 16 A, 400 V AC-3: 16 A, 400 V AC-15: 10 A, 400 V	**Alternating current:** AC-1: 10 A, 440 V AC-3: 6 A, 440 V AC-15: 4 A, 440 V		**Alternating current:** AC-1 : 16 A, 400 V AC-3 : 16 A, 400 V AC-15 : 10 A, 400 V
		Direct current: DC-13: 12 W, 220 V	**Direct current:** DC-13: 12 W, 220 V		**Direct current:** DC-13: 12 W, 220 V
Contact load, Gold plated contact set		See Table 6			
Enclosure, IP30 grade		Unit must be mounted on a flat surface / a flat fitting and all unused holes covered			
Enclosure, IP44 grade		Mounted as IP30 plus fitting of top cover, code no. 060-109766			
Enclosure, IP55 grade		Unit mounted in a special IP55 enclosure, code no. 060-033066 or 060-062866			
Cable entry		Rubber cable gland entry for 6 – 14 mm diameter cables			
Mounted on back plate / wall bracket		Vibration proof in the range 0 – 1000 Hz, 4 g [1g = 9.81 m/s^2]			
Mounted on angle bracket		Not recommended in areas where vibrations occur			

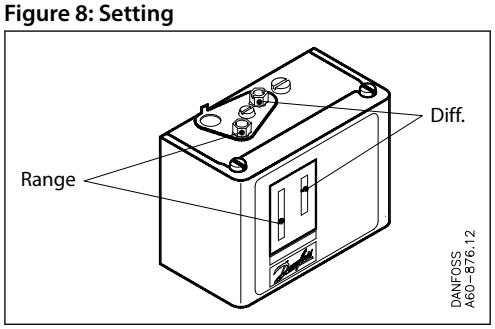
Table 2: Contact system and application

Switch type – single pole double throw	Switch action	Application
	Terminal 1– 4 close high and open low Terminal 1 –2 can be used as low pressure alarm	Low pressure cut-out
SPDT	Terminal 1 – 2 open high and close low Terminal 1 – 4 can be used as high pressure alarm	High pressure cut-out

Setting

Cut-in and cut-out pressures of the system should always be checked with an accurate pressure gauge.

Figure 8: Setting



Pressure setting for switches with automatic reset.

- Set the cut-in pressure on the “CUT-IN” scale (range scale).
- Set the differential on the “DIFF” scale.

For high pressure switches the restart pressure is equal to cut-out pressure minus differential.

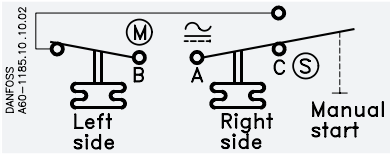
Pressure switches with manual reset
Set the cut-out presure on the “CUT-OUT” scale (range scale).

High pressure limiters can be manually reset when the pressure is equal to the stop (cut-out) pressure minus the differential.

Low pressure limiters can be manually reset when the pressure is equal to the stop (cut-out) pressure plus the differential.

Dual pressure switch

Table 3: Dual pressure switch

Temperature	Range	
Ambient temperature [°C]	-40 – 65 °C (for max. 2 hours up to 80 °C)	
Media temperature [°C]	Max. 100 °C	
Fluid	Liquids	
Parts in contact with fluid	Bellows	Phosphor bronze, CuSn6
	Pressure connector	Free-cutting steel (nickel plated)
Contact system		
Contact load, Silver	**Alternating current:** AC-1: 16 A, 400 V AC-3: 16 A, 400 V AC-15: 10 A, 400 V	
	Direct current: DC-13: 12 W, 220 V	
IP level	IP22	
Cable entry	Rubber cable gland entry for 6 – 14 mm diameter cables	
Mounted on backplate or wall bracket	Vibration-proof in the range 0 – 1000 Hz, 4 g [1g = 9.81 m/s^2]	
Mounting on angle bracket	Not recommended for areas where vibration occurs	

Safety cut-out setting
The righthand bellows will automatically cut-out the pump at the safety cut-out setpoint. Automatic start-up, if any, will take place when the pressure has reached the level of 1 bar above the setpoint. Manual cut-in is made by lifting the impulse lever and releasing it again when the pressure has increased by min. 1 bar. The safety cut-out setpoint is normally determined by the static pressure (the water column). However, in order to avoid disturbing signal interaction, care should be taken to ensure that the safety cut-out setting is at least 1.5 bar lower than the control pressure cut-in setting. See table with pressure setting examples below

Table 4: Pressure settings

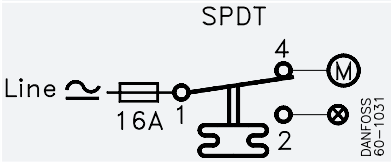
Required tap water pressure	≥ 2.3 bar	≥ 4.0 bar	≥ 5.0 bar	≥ 8.0 bar
Control pressure cut-out setting	3.0 bar	5.0 bar	8.0 bar	12 bar
Differential	0.7 bar	1.0 bar	3.0 bar	4.0 bar
Control pressure cut-in setting	2.3 bar	4.0 bar	5.0 bar	8.0 bar
Max. safety cut-out setting	0.8 bar	2.5 bar	3.5 bar	6.0 [1]bar

[1] 6.0 bar is the normal max. setpoint

Control pressure settings
Control pressure cut-out setpoint is set on the lefthand pressure setting scale. The differential is set between 0.7 and 4 bar. The control pressure cut-in setting will be the cut-out control pressure less the differential.

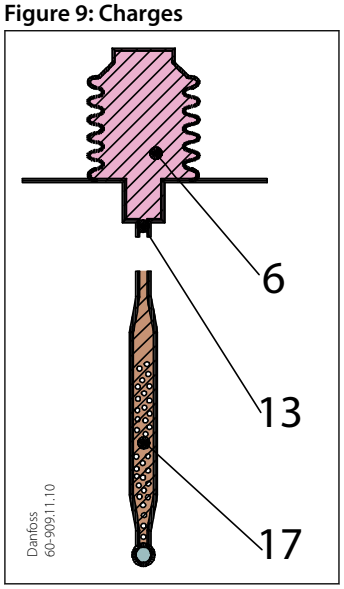
Thermostat

Table 5: Thermostat

Temperature	Range
Ambient temperature [°C]	-40 – 65 °C (for max. 2 hours up to 80 °C)
Sensor material	Tinned copper Cu/Sn5
Contact system	 Single-pole double throw (SPDT)
Contact load, Silver	**Alternating current:** AC-1: 16 A, 400 V AC-3: 16 A, 400 V AC-15: 10 A, 400 V **Direct current:** DC-13: 12 W, 220 V
Contact load, Gold plated contact set	See Table 6
Enclosure, IP30 grade	Unit must be mounted on a flat surface / a flat fitting and all unused holes covered
Enclosure, IP44 grade	Mounted as IP30 plus fitting of top cover, code no. 060-109766
Enclosure, IP55 grade	Unit mounted in a special IP55 enclosure, code no. 060-033066 or 060-062866. Exception: KP 75
Cable entry	Entry for 6 – 14 mm diameter cable
Mounted on backplate or wall bracket	Vibration-proof in the range 0 – 1000 Hz, 4 g [1 g = 9.81 m/s^2]
Mounted on angle bracket	Not recommended for areas where vibration occurs

Charges

Figure 9: Charges



6	Bellows
7	Sensor
13	Capillary tube

Absorption charge

The charge consists partly of a superheated gas and partly of a solid substance with a large absorption surface.

The solid substance is concentrated in the sensor, and consequently it is always the sensor that comprises the temperature-regulating part of the thermostatic element.

The sensor can be placed both warmer or colder than the thermostat housing and capillary tube. However, placing it in an ambient temperature higher or lower than 20 °C can affect the accuracy of the scale.

Setting

Thermostats with automatic reset
Set the upper limit temperature on the range scale. Then set the differential on the DIFF scale. The temperature set on the range scale is also the temperature at which contact changeover re-occurs on rising temperature. The contacts changeover when the temperature has fallen to a value lower than that set on the DIFF scale.

If at lower settings the plant will not start/stop, the reason might be that the differential has been set too high.

Thermostats with minimum reset
Set the temperature on the range scale. The differential setting is fixed.

Min. reset units will restart after the temperature at the thermostat sensor has risen by a value greater than that of the fixed differential.

Thermostats with maximum reset
Set the stop temperature on the range scale. The differential setting is fixed.

Max. reset units will restart after the temperature at the thermostat sensor has fallen by a value greater than that of the fixed differential.

Dimensions [mm] and weights [kg]

Single pressure switch, type KP and KPI

Figure 10: KP 35, 36, KPI 35, 36, 38, Net weight 0.3 kg

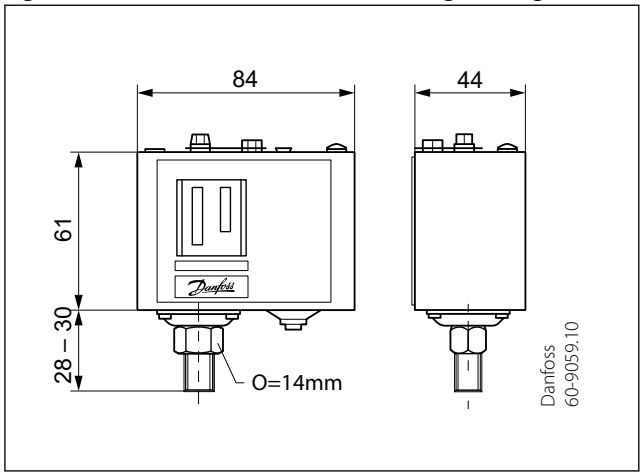


Figure 11: IP55 enclosure

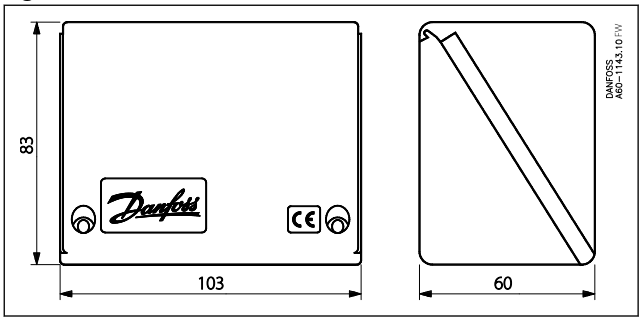


Figure 12: Wall bracket

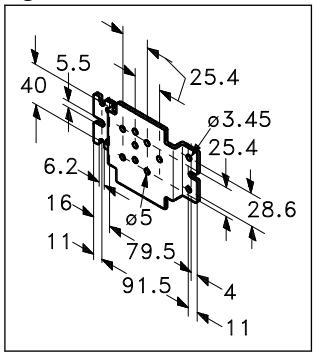
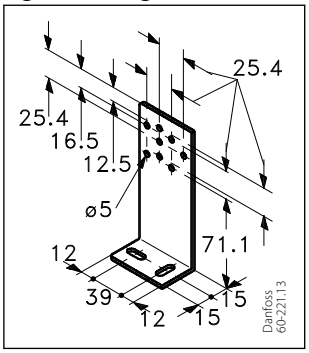


Figure 13: Angle bracket



Single pressure switch, type KP (Boiler version)

Figure 14: KP 35, 36 (net weight approx. 0.34 kg)

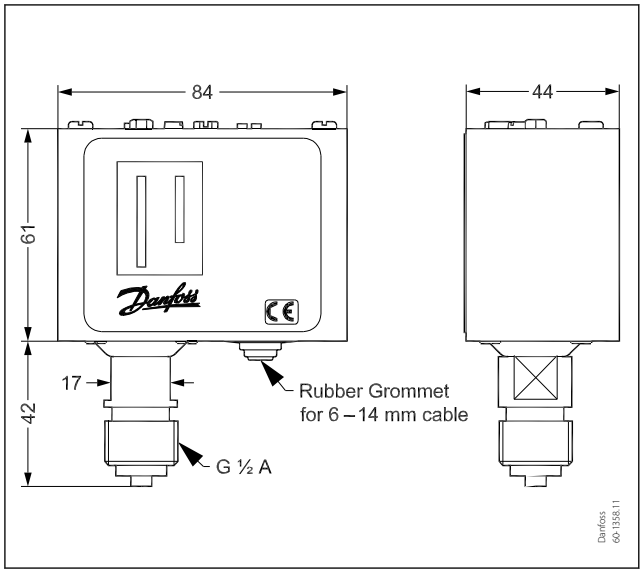
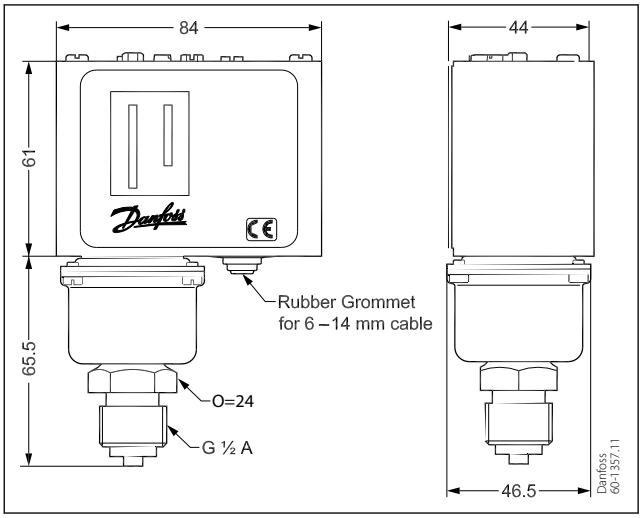
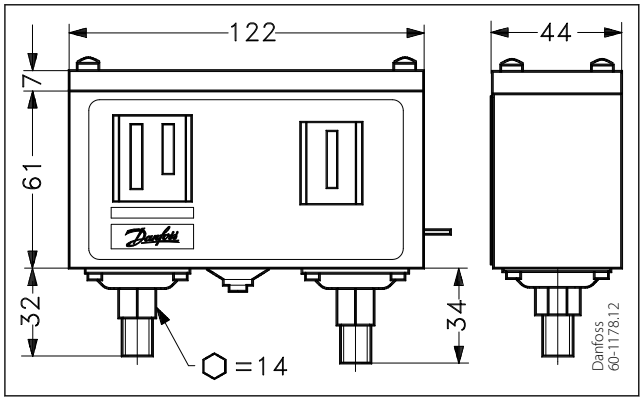


Figure 15: KP 34 (net weight approx. 0.43 kg)



Dual pressure switch, type KP 44

Figure 16: KP 44 (net weight 0.5 kg)



Thermostat, type KP

Figure 17: KP 75, 78, 79, 81 (net weight 0.4 kg)

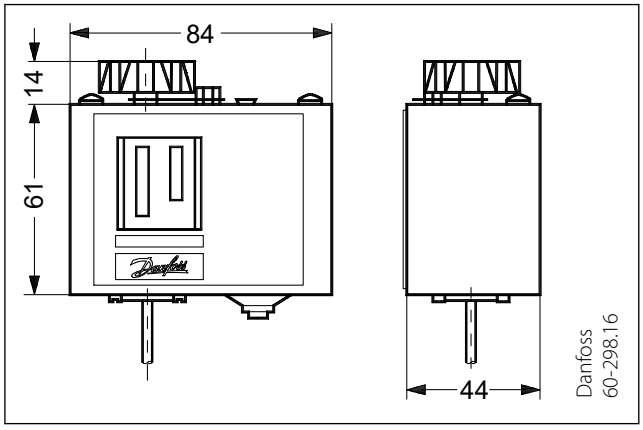


Figure 18: IP55 enclosure

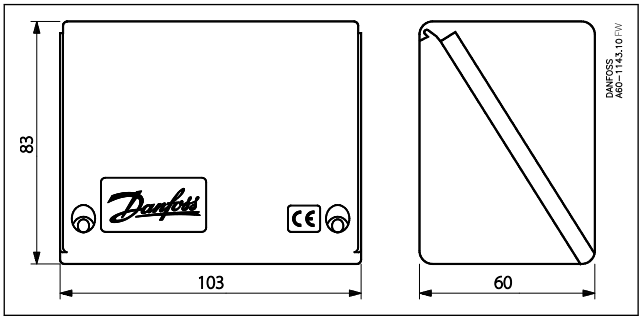


Figure 19: KP 75 Sensor: Tinned copper Cu/Sn 5

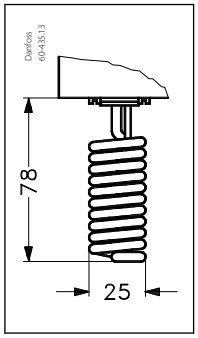


Figure 20: KP 78, 79, 81 Sensor: Tinned copper Cu/Sn 5

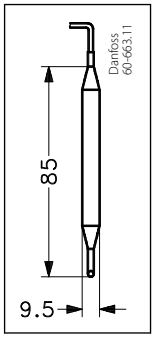


Figure 21: Wall bracket

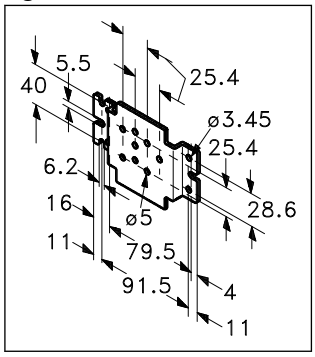
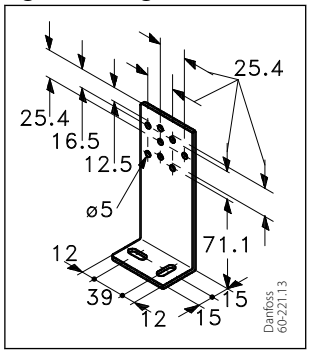


Figure 22: Angle bracket



General information gold contacts

Table 6: Gold contacts

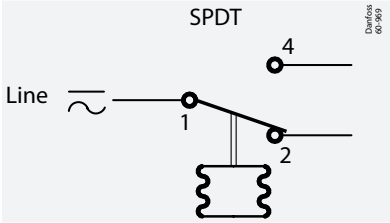
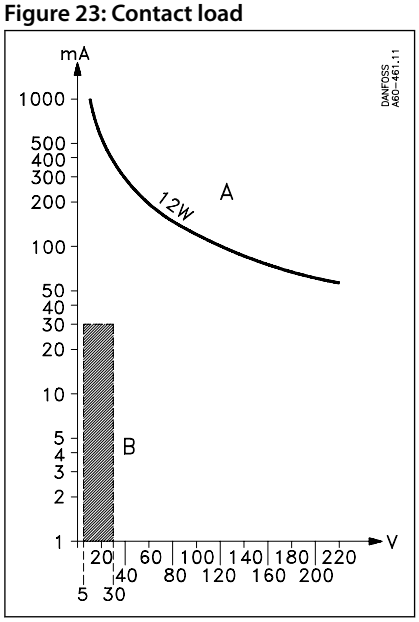
Contact material	Gold-plated silver
Contact system	
	Single-pole double throw (SPDT)
Contact load (when Au surface is burnt away)	**Alternating current:** Ohmic load: AC-1: 10 A, 440 V Inductive load: AC-3: 6 A, 440 V and AC-15: 4 A, 440 V **Direct current:** DC-13: 12 W, 220 V

Figure 23: Contact load



A	Gives the maximum load
B	Acceptable load for the gold plating of the contact (DC-13)

Terminology

Range setting / Set point
The pressure range within which the unit will give a signal (contact changeover).

Differential
The difference between contact changeover on rising and falling pressure. The differential is a condition for stable automatic plant operation.

Manual reset
A unit with manual reset can only be restored to operational mode by activation of the external reset button. Min. reset units will restart after the pressure has risen by a value greater than that of the fixed differential. Max. reset units will restart after the pressure has fallen by a value greater than that of the fixed differential.

Automatic reset
Units with automatic reset restart automatically after stop.

Permissible operating pressure
The highest permissible constant pressure or pressure variation the unit can be exposed to.

Maximum test pressure
The maximum pressure applied in strength or leakage tests on heating system or components thereof.

Maximum working pressure
The maximum permissible pressure for safe functioning of a heating system or any of its parts.

Snap function
A specific contact force is maintained until snap is initiated. The time over which contact force reaches zero is a few milliseconds; therefore, contact bounce cannot occur as a result, for example, of slight vibrations before cut-out.

The snap-action contact system will continue to function even when micro-welds are created between the contacts during cut-in.

The force created to separate the contacts is strong, and instantly shears off all contact surface welds that have been created as the result of cut-in action.

These design features ensure that the cut-out point of the KP control remains very accurate and completely independent of the magnitude of the current load.

Current ratings:

AC – 1	The alternating current rating, in amperes, of the non-inductive, slightly inductive loads or resistive furnaces
AC – 3	The alternating current rating, in amperes, of the squirrel-cage motors: starting, plugging, inching
AC – 15	The alternating current rating, in amperes, of electromagnetic loads (>72VA)
DC – 13	The direct current rating, in amperes, of electromagnets

Ordering

Pressure switch, type KP and KPI

Table 7: Pressure switch, types KP 35 and KP 36

Type	Setting range P_e	Differential	Permissible operating pressure P_e	Max. test pressure	Pressure connection	Contact material	Code no.
	[bar]	[bar]	[bar]	[bar]			
KP 35	-0.2 – 7.5	0.7 – 4.0	17	22	G ¼ A	silver	060-113366 060-113391 (1)
	-0.2 – 7.5	0.7 – 4.0	17	22	G ¼ A	gold-plated	060-504766
	-0.2 – 7.5	0.7 – 4.0	17	22	G ¼ A	silver	060-538666 (2)
	-0.2 – 7.5	0.7 – 4.0	17	22	G ¼ A	silver	060-450366 (3)
KP 36	2.0– 14.0	0.7 – 4.0	17	22	G ¼ A	silver	060-110866 060-110891
	2.0– 14.0	0.7 – 4.0	17	22	G ¼ A	gold	060-113766
	2.0 - 14.0	0.7 - 4.0	17	22	G ¼ A	silver	060-450166(3)
	2.0– 14.0	0.7 – 4.0	17	22	G ¼ A	silver	060-538766(2)
	4.0 – 12.0	0.5 – 1.6	17	22	G ¼ A	silver	060-122166
	4.0 – 12.0	0.5 – 1.6	17	22	G ¼ A	gold	060-114466

(1) Available only in Asia market
(2) IP55 transparent enclosure
(3) Stainless steel version, IP55 non-transparent enclosure

Table 8: Pressure switch, types KPI 35 – KPI 38

Type	Setting range P_e	Differential	Permissible operating pressure P_e	Max. test pressure	Pressure connection	Contact material	Code no.
	[bar]	[bar]	[bar]	[bar]			
KPI 35	-0.2 – 8.0	0.4 – 1.5	18	18	G ¼ A	silver	060-121766
	-0.2 – 8.0	0.4 – 1.5	18	18	G ¼ A	gold-plated	060-316466
	-0.2 – 8.0	0.5 – 2.0	18	18	G ¼ A	silver	060-121966
	-0.2 – 8.0	0.4 – 1.5	18	18	G ¼ A	silver	060-315766 (4)
KPI 36	4 .0– 12.0	0.5 – 1.6	18	18	G ¼ A	silver	060-118966
	4 .0– 12.0	0.5 – 1.6	18	18	G ¼ A	gold-plated	060-113866
	2.0 – 12.0	0.5 – 1.6	18	18	G ¼ A	silver	060-316966
	2.0 – 12.0	0.5 – 1.6	18	18	G ¼ A	silver	060-319366 (5)
KPI 38	8.0 – 28.0	1.8 – 6.0	30	30	G ¼ A	silver	060-508166
	8.0 – 28.0	1.8 – 6.0	30	30	G ¼ A	silver	060-541866(5)

(4) IP55 transparent enclosure
(5) IP55 non-transparent enclosure

Table 9: Pressure switch, types KP 34 – KP 37, boiler version

Type	Setting range p_e	Differential	Reset	Pressure connection	Max. test pressure	Contact material	Code no.
	[bar]	[bar]		[bar]	[bar]		
KP 34	0.1 – 1.0	0.1 – 0.4	Automatic	G ½ A	4.0	silver	060-216466
	0.1 – 1.0	0.2	Manual	G ½ A	4.0	silver	060-216366
KP 35	0.4 – 3.4	0.4 – 2.2	Automatic	G ½ A	10	silver	060-216666
	0.4 – 3.4	0.5	Manual	G ½ A	10	silver	060-216566
KP 36	1.0 – 10.0	0.7 – 4.0	Automatic	G ½ A	17	silver	060-215966
	1.0 – 10.0	0.7	Manual	G ½ A	17	silver	060-216066
KP 37	4.0 – 20.0	1.8 – 3.1	Automatic	G ½ A	28	silver	060-216166
	4.0 – 20.0	3.0	Manual	G ½ A	28	silver	060-216266

Table 10: Pressure switch, type KP 44

Pressure range		Differential		Permissible operating pressure p_e [bar]	Max. test pressure [bar]	Pressure connection	Contact material	Code no.
Control [bar]	Safety [bar]	Control [bar]	Safety [bar]					
2.0 – 12.0	0.5 – 6.0	0.7 – 4.0	1.0	Left side: 17 Right side: 17	Left side: 25 Right side: 19	2 × G ¼ A	Silver	060-001366

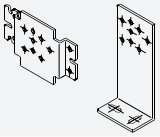
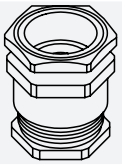
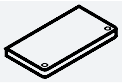
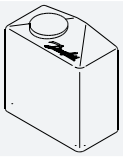
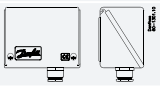
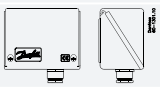
Thermostat, type KP

Table 11: Thermostat, types KP 75 – KP 81

Type	Setting range [°C]	Differential [°C]	Max. sensor temperature [°C]	Capillary tube length [m]	Contact material	Code no.
KP 75	0 – 40	3 – 10	80	Room sensor	silver	060L121266
KP 75	0 – 40	3 – 10	80	Room sensor	gold-plated	060L117166
KP 78	30 – 90	5 – 15	150	2	silver	060L118466
KP 79	50 – 100	5 – 15	150	2	silver	060L112666
KP 81	80 – 150	7 – 20	200	2	silver	060L112566
KP 81	80 – 150	7 – 20	200	3	silver	060L118366
KP 81	80 – 150	7 – 20	200	5	silver	060L117066
KP 81 (max. reset)	80 – 150	8 (max. reset)	200	2	silver	060L115566

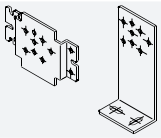
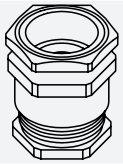
Accessories for KP pressure switches

Table 12: KP pressure switches

Part	Symbol	Description	Code no
Brackets with mounting screws and washers		Wall bracket for KP	060-105566
		Angle bracket for KP	060-105666
Screwed cable entry		PG 13.5 with special nut For 6 –14 mm diameter cables	060-105966
Sealing screw		For sealing the setting on KP	060-105766
Top cover		If a bracket is mounted on the backplate of the housing, the KP thermostats will have an IP44 grade of enclosure. The cover protects the setting spindles	060-109766
Protective cap		Protective cap for KP pressure switches and thermostats. To protect the unit against rain and humidity. Grade of enclosure: IP44 Material: Polyethylene Max. ambient temperature: 65 °C Min. ambient temperature: -40 °C	060-003166
IP55 nontransparent enclosure		If the unit risk being exposed to heavy water influence a better grade of enclosure can be achieved when mounting product in a special IP55 enclosure	060-033066
IP55 transparent enclosure		If the unit risk being exposed to heavy water influence a better grade of enclosure can be achieved when mounting product in a special IP55 enclosure	060-062866

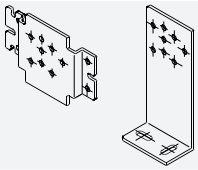
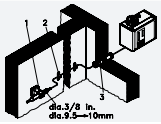
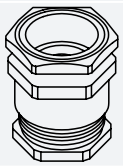
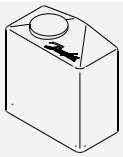
Accessories for KP 44 pressure switches

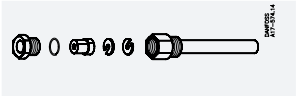
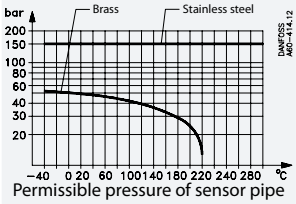
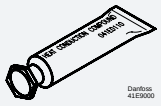
Table 13: KP 44 pressure switches

Part	Symbol	Description	Total	Code no.
Brackets with mounting screws and washers		Wall bracket	1	060-105566
		Angle bracket	1	060-105666
Screwed cable entry		PG 13.5 with special nut for 6 – 14 mm diameter cables	1	060-105966
Sealing screw		For sealing the setting on KP	2	060-105766

Accessories for KP thermostats

Table 14: Accessories

Part	Symbol	Description	Total	Code no.
Brackets with mounting screws and washers		Wall bracket for KP	1	060-105566
		Angle bracket for KP	1	060-105666
Sensor holder		Sensor holder for wall mounting with four capillary tube clips and 9-off 12 mm pins	1	017-420166
Screwed cable entry		PG 13.5 with special nut For 6 – 14 mm diameter cables A standard Pg 16 cable entry can be used for 8 –16 mm diameter cables	1	060-105966
Sealing screw		For sealing the setting on KP	2	060-105766
Top cover		If a bracket is mounted on the backplate of the housing, the KP thermostats will have an IP44 grade of enclosure. The cover protects the setting spindles	1	060-109766
Protective cap		Protective cap for KP pressure switches and thermostats. To protect the unit against rain and humidity. Grade of enclosure: IP44 Material: Polyethylene Max. ambient temperature: 65 °C Min. ambient temperature: -40 °C	1	060-003166

Part	Symbol	Description	Total	Code no.
Sensor pocket		For all KP thermostats with cylindrical remote sensor. Sensor pocket, gasket and union for screwing into G½ connectors welded onto tubes, containers, etc.		
		Int. diameter 9.6 mm, insert depth 112 mm (brass). Ext. diameter 11 mm.	1	017-437066
		Int. diameter 9.6 mm, insert depth 112 mm (st 18/8). Ext. diameter 11 mm.	1	017-436966
		Int. diameter 9.6 mm, insert depth 465 mm (brass). Ext. diameter 11 mm.	1	017-421666
	 Permissible pressure of sensor pipe medium	Media temperature for sensor: 250 °C This temperature can be increased by applying a different gasket material		
Heat-conductive aluminium paste	Tube 	For KP and RT thermostats with sensor mounted in a sensor pocket. Temperature range: -20 – 150 °C (short-lived 220 °C) Tube with 6 g aluminium paste	1	041E0115

Certificates, declarations, and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

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Table 15: Certificates, declaration and approvals

Document name	Document type	Document topic	Approval authority
BK_W_0862_01_2018	Food and Health - Performance Certificate		PZH
RU Д-DK.ГА02.В.03367	EAC Declaration	EMC	EAC
RU C-DK.БЛ08.В.00063_18	Electrical - Safety Certificate	EMC/LVE	EAC
ELE-086320XG-003	Marine - Safety Certificate		RINA
UA.1O146.D.00075-19	UA Declaration	EMCD/LVD	LLC CDC EURO TYSK

- CE-marked in accordance with LVD 2014/35/EU: EN 60947-1, EN 60947-4-1, EN 60947-5-1
- Underwriters Laboratories Inc., UL
- China Compulsory Certificate, CCC (excluding boiler versions)

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