

Data sheet

# Pressure switch and Thermostat

## KP and KPI



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

- 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)

### Approvals

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)  
GOST (excluding KPI)

**Technical data**
**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		<p style="text-align: center;">SPDT</p> <p style="text-align: center;">Single-pole double throw (SPDT)</p>			
Contact load, Silver		<b>Alternating current:</b> AC-1: 16 A, 400 V AC-3: 16 A, 400 V AC-15: 10 A, 400 V	<b>Alternating current:</b> AC-1: 10 A, 440 V AC-3: 6 A, 440 V AC-15: 4 A, 440 V	<b>Alternating current:</b> AC-1 : 16 A, 400 V AC-3 : 16 A, 400 V AC-15 : 10 A, 400 V	
		<b>Direct current:</b> DC-13: 12 W, 220 V	<b>Direct current:</b> DC-13: 12 W, 220 V	<b>Direct current:</b> DC-13: 12 W, 220 V	
Contact load, Gold plated contact set		See information page 15			
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 [1 g = 9.81 m/s <sup>2</sup> ]			
Mounted on angle bracket		Not recommended in areas where vibrations occur			

**Ordering**
**Pressure switch, types KP 35 and KP 36**

Type	Setting range P <sub>e</sub>	Differential	Permissible operating pressure P <sub>e</sub>	Max. test pressure	Pressure connection	Contact material	Code no.
	[bar]						
KP 35	-0.2 – 7.5	0.7 – 4.0	17	22	G 1/4 A	silver	060-113366 060-113391 <sup>1)</sup>
	-0.2 – 7.5	0.7 – 4.0	17	22	G 1/4 A	gold-plated	060-504766
	-0.2 – 7.5	0.7 – 4.0	17	22	G 1/4 A	silver	060-538666 <sup>2)</sup>
	-0.2 – 7.5	0.7 – 4.0	17	22	G 1/4 A	silver	060-450366 <sup>3)</sup>
KP 36	2.0 – 14.0	0.7 – 4.0	17	22	G 1/4 A	silver	060-110866 060-110891 <sup>1)</sup>
	2.0 – 14.0	0.7 – 4.0	17	22	G 1/4 A	gold	060-113766
	2.0 – 14.0	0.7 – 4.0	17	22	G 1/4 A	silver	060-538766 <sup>2)</sup>
	4.0 – 12.0	0.5 – 1.6	17	22	G 1/4 A	silver	060-122166
	4.0 – 12.0	0.5 – 1.6	17	22	G 1/4 A	gold	060-114466
	4.0 – 12.0	0.5 – 1.6	17	22	G 1/4 A	silver	060-450166 <sup>3)</sup>

<sup>1)</sup> Available only in Asia market

<sup>2)</sup> IP55 transparent enclosure

<sup>3)</sup> Stainless steel version, IP55 non-transparent enclosure

**Pressure switch, types KPI 35 – KPI 38**

Type	Setting range P <sub>e</sub>	Differential	Permissible operating pressure P <sub>e</sub>	Max. test pressure	Pressure connection	Contact material	Code no.
	[bar]						
KPI 35	-0.2 – 8.0	0.4 – 1.5	18	18	G 1/4 A	silver	060-121766
	-0.2 – 8.0	0.4 – 1.5	18	18	G 1/4 A	gold-plated	060-316466
	-0.2 – 8.0	0.5 – 2.0	18	18	G 1/4 A	silver	060-121966
	-0.2 – 8.0	0.4 – 1.5	18	18	G 1/4 A	silver	060-315766 <sup>1)</sup>
KPI 36	4.0 – 12.0	0.5 – 1.6	18	18	G 1/4 A	silver	060-118966
	4.0 – 12.0	0.5 – 1.6	18	18	G 1/4 A	gold-plated	060-113866
	2.0 – 12.0	0.5 – 1.6	18	18	G 1/4 A	silver	060-316966
	2.0 – 12.0	0.5 – 1.6	18	18	G 1/4 A	silver	060-319366 <sup>2)</sup>
KPI 38	8.0 – 28.0	1.8 – 6.0	30	30	G 1/4 A	silver	060-508166
	8.0 – 28.0	1.8 – 6.0	30	30	G 1/4 A	silver	060-541866 <sup>2)</sup>

<sup>1)</sup> IP55 transparent enclosure

<sup>2)</sup> IP55 non-transparent enclosure

**Pressure switch, types KP 34 – KP 37, boiler version**

Type	Setting range p <sub>e</sub>	Differential	Reset	Pressure connection	Max. test pressure	Contact material	Code no.
	[bar]			[bar]	[bar]		
KP 34	0.1 – 1.0	0.1 – 0.4	Automatic	G 1/2 A	4.0	silver	060-216466
	0.1 – 1.0	0.2	Manual	G 1/2 A	4.0	silver	060-216366
KP 35	0.4 – 3.4	0.4 – 2.2	Automatic	G 1/2 A	10	silver	060-216666
	0.4 – 3.4	0.5	Manual	G 1/2 A	10	silver	060-216566
KP 36	1.0 – 10.0	0.7 – 4.0	Automatic	G 1/2 A	17	silver	060-215966
	1.0 – 10.0	0.7	Manual	G 1/2 A	17	silver	060-216066
KP 37	4.0 – 20.0	1.8 – 3.1	Automatic	G 1/2 A	28	silver	060-216166
	4.0 – 20.0	3.0	Manual	G 1/2 A	28	silver	060-216266