



aerospace climate control electromechanical filtration fluid & gas handling hydraulics pneumatics process control sealing & shielding





Parker Level Switch

Pneumatic Technology Products





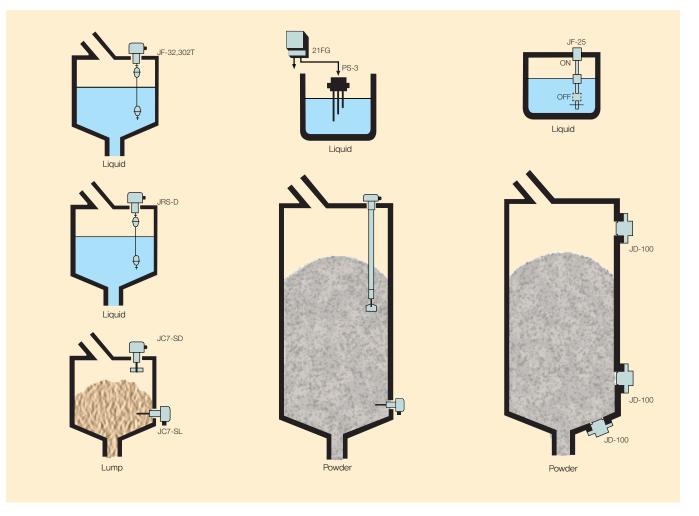
ENGINEERING YOUR SUCCESS.

Level switch

Scope of application

Classification	Model Name	Fluid used	Use division	Scope of application
	JB-SD		Styrofoam, Resin	
Propeller type	JC7-SD, SL	- Powder Granules	Granules Lumps Flour	Wheat flour, Soybean, Feed, Sugar, Cement, Sand, Gravels, Molding sand, Ore, Coal, Coke
	JC7-SH			
	JC7-ST	Lumps		
Diaphragm type	JD-100			Wheat flour, Soybean, Feed, Sugar, Sand, etc.
	JF-25		Water	Clean water
Float type	type JF-32		Oil Industrial liquid materials Chemical solvent	Clean water, Waste water, Saline solution, Distilled water, Industrial chemical water, Cooking oil, Soybean oil, Heavy oil, Petroleum, Insulating oil, Mineral oil, Alcohol, Benzene, etc.
	JF-302T	Liquids		
Lead Switch type	JRS-S			
	JRS-D			

Application examples





JB-SD Series

Features

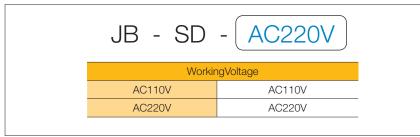
- A compact type product that can be easily maintained and repaired in small spaces
- Optimum for controlling powders and fine particles such as flour, wheat flour, sugar, and plastic materials
- Highly sensitive with built-in springs that can be adjusted to four levels
- Usable in various kinds of small hoppers such as grain tanks and rice husk tanks

Specifications

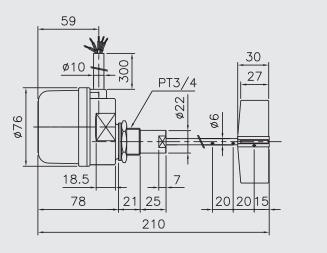
Item	Unit	JB-SD
Voltage	V	AC 110V, AC220V(50/60Hz)
Regulation of voltage	%	±10
Power consumption	W	When the wing turns: 3W
Contact point capacity		AC 250V, 3A
Pressure used		Atmospheric pressure (ATM)
Rotation speed	RPM	6
Torque	g/cm	300~600
Oprating Temperature	°C	0~60 (Non-Condencing)



How to order



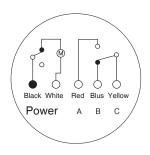
Dimensions





Unit: mm

Wiring



JC7 Series







JC7-SH For heat resistance



Features

- Using mechanical detection methods, these types are not affected by temperatures, humidity, gases, etc. in the tank
- Made with aluminum cases, these types can be installed and used outdoors

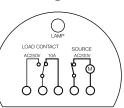
Operation principle

- Operated with mechanical structures, JC7 series detect the heights of stored goods through the rotational movements of their wings
- The wings are rotated by the motor. When resistance is generated on the wings by stored goods, the two micro-switches are operated by the built-in cam.
- The first switch turns the control circuit on/off and the next switch turns off the motor to prevent motor overload

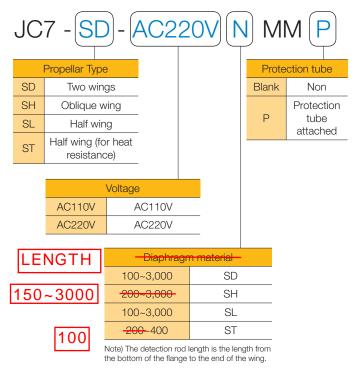
Specifications

Item	Unit	JC7
Voltage	V	AC 110V, AC220V/50/60Hz
Regulation of voltage	%	±10
Power consumption	W	When the wing turns: 3
Contact point capacity		AC 250V, 3A
Pressure used		Atmospheric pressure
Rotation speed	RPM	6
Torque	g/cm	500~1000
Weight	kg	2.0kg, Heat radiating type (Separate weight for special products)
Ambient Temperature	°C	Standard type: 0~60
Ambient Temperature		For heat resistance: 0~120

Wiring

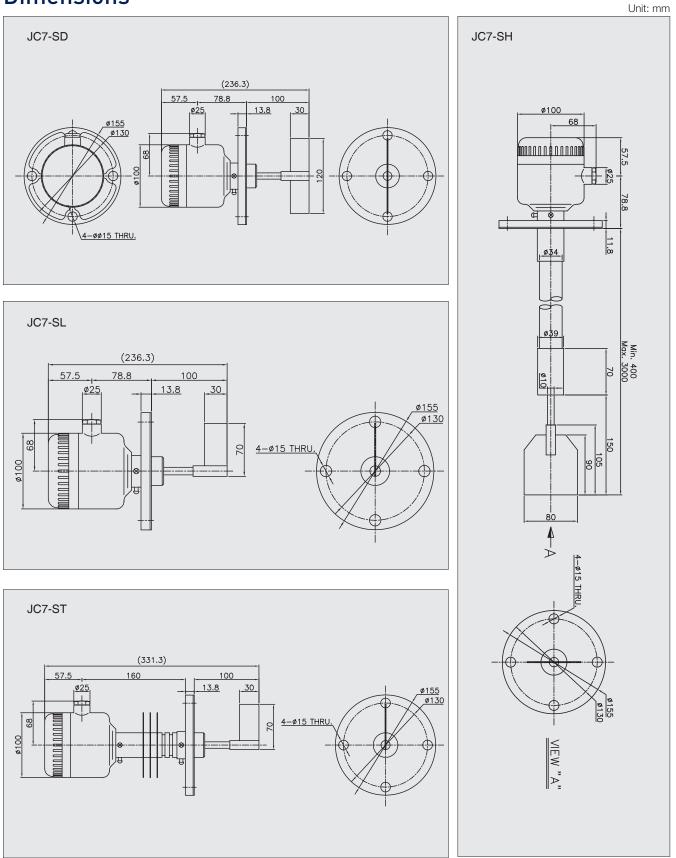


How to order





Dimensions



-Parker

JD-100 Series

JD-100	
Basic model	

Features

- Sensitivity can be easily adjusted using an internal high strength spring
- Since the structure is simple, troubles occur rarely and maintenance is easy
- Easy handling and wiring

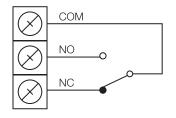
Specifications

Item	Unit	JD-100
Contact point capacity		AC 250V 5A, DC125V 0.5A
Pressure used		Atmospheric pressure (ATM)
Torque	g/cm	500~1000
Operting Temperature	°C	60
Ambient Temperature	°C	0~60 (Provided that, there should be no freezing)

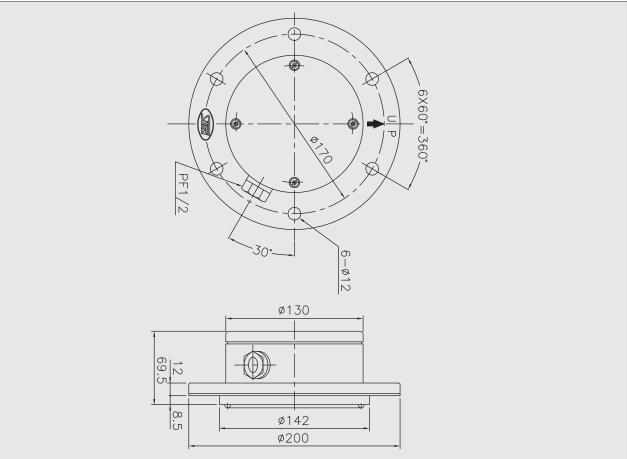
Dimensions



Wiring

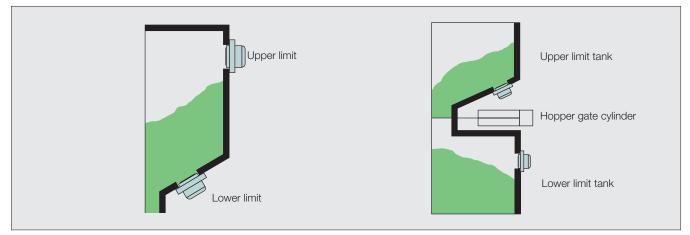


Unit: mm

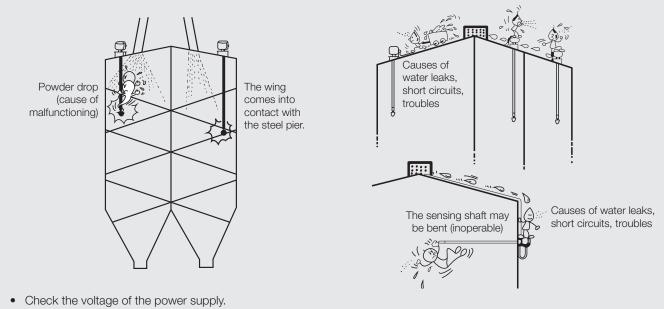




Example of installation



Precautions for installation



- The built-in small motor requires a predetermined voltage which cannot be adjusted.
- Carefully review places to be selected for installation -The wings should not come into contact with parts such as steel piers in silos or tanks -Avoid places where powder drops. Upper limit switches should be installed vertically to have the device exert its performance.
- When the switch has been installed outdoors, problems may easily occur in electric piping in particular. If the level switch is lower than the wiring duct as shown in the figure, rainwater many flow into the electric piping and into the main body of the level switch in rainy seasons. Therefore, please pay special attention to this matter.
- The level switch is mechanical and has a small built-in synchronous motor(torgue: 0.1-1kgf/cm). Therefore, please be careful so that no foreign matter or impurities would go into the level switch while being installed.
- If pressure is applied to the diaphragm surface by powder in the silo or tank, the built-in micro-switch will operate due to the force. If there is no powder in the silo or tank, the switch will be automatically restored by the force of the built-in spring.

When necessary, the internal spring's force may be adjusted to adjust the sensitivity.

Caution Do not use this switch in use environments where the rubber diaphragm may be damaged.



JF Series

Features

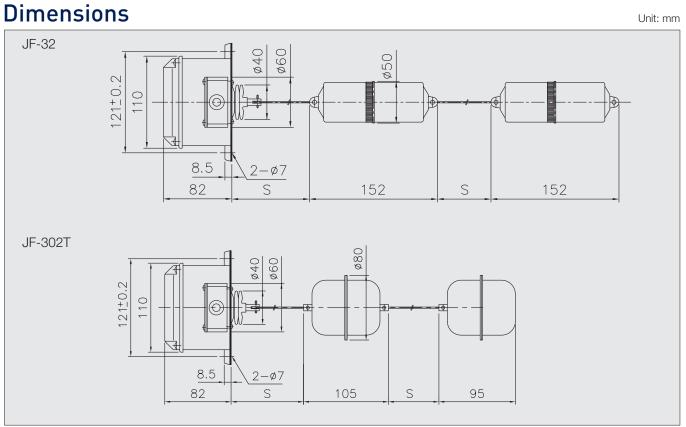
- Since these products operate regardless liquid resistance, these products are optimum for control the level of liquids such as clean water, waste water, saline solution, milk, heavy oil, diesel, cooking oil, etc.
- Not affected by the capacitance between external lead wires and can ٠ be operated remotely.
- Can be installed outdoors because a water proof main body cover is • employed.
- ٠ Floats for organic solvents such as gasoline, heavy oil, benzene, and alcohol can be manufactured
- Can be used for single phase and three phase ٠

Specifications

Item	JF-32	JF-302T	
Rated contact point capacity	AC250V 10A		
Frequency	50/60Hz		
Usable control range	0.18~10M		
Air pressure in the water tank	1 Atmosphere		
Usable temperature range	0~50°C	0~120°C	
Rod material	Resin	STS 304	
Scope of applicable fluids	Clean water, waste water, saline solution, corrosive liquids	Milk, heavy oil, diesel, cooking oil, benzene, alcohol, etc.	

JF-32 JF-302T STS floater Plastic floater

Unit: mm





Liquid specific gravity table

Water	1.0
Sea water	1.01~1.05
Diesel	0.83~0.88
Heavy oil	0.85~0.9

Contact point rated capacity

JF32-JF-302T

AC110~125V	10A
AC220~250V	10A
AC440~480V	ЗА
AC600V	2A

21FG

ZIFG				
AC110~125V	5A			
AC220~250V	4A			

The above written rated capacities are values for resistive loads ($\cos \phi = 1$). In the case of inductive loads, the rated capacities may be regarded as 1/2 of the above written values.

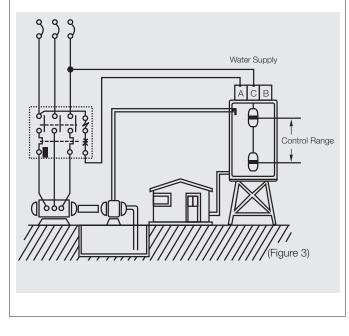
How to use and matters to be attended

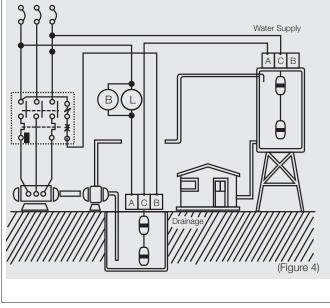
External connection diagram (water supply/three phase)

- When using for water drainage, use terminal B instead of terminal A.
- Ensure that the float would not be shaken by water flows or impacts
- This is suitable for level control that operates regardless of drained liquids' resistance
- Not affected by external induction or capacitance between wires and easily operated remotely.

Diagram of connection for pump idling prevention, alarms, and water supply control

 Please use JF-32 type floats at temperatures not exceeding 50°C because they are made of synthetic resins. Use JF-302T floats made of a stainless steel rod for high temperatures







JRS Series

Features

- Detection balls and detection rods are completely enclosed and thus the products are not affected by pressure, vacuum, or gases
- The lead switch is enclosed in a glass tube containing inert gas and thus the products operate safely in combustible gases
- When the detection ball moves up and down due to buoyancy, the lead switches fixed to the upper/lower limit contact point positions are sensed.
- Can be used for simultaneous control of water supply/ drainage or alarms for water shortage/full water by additionally installing electrode type level switches (21F-G)
- In particular, types with the control unit not built in the products can be used in regions with the risk of explosion or cases where the location of detection is far away from the location of control by installing the power supply part and the amplification part separately
- Depending on connections, either N.C or N.O can be used or both can be used.



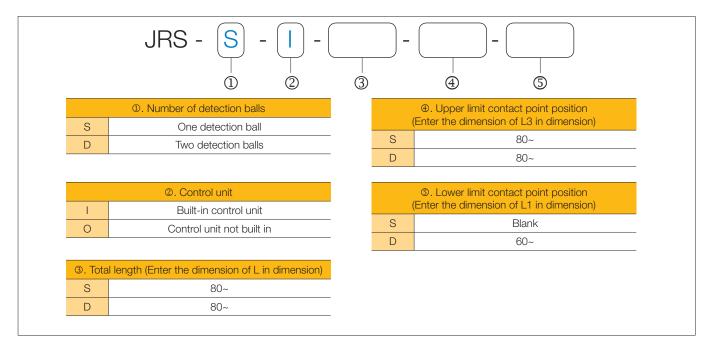
Specifications (built-in type)

Item	JRS-S	JRS-D	
Power supply/voltage	AC110V, AC220V/50/60Hz		
Voltage fluctuation range	±10%		
Power consumption	2VA		
Contact point capacity	AC250V 3A		
Internal pressure	7kgf/cm2		
Insulation resistance	At least 100 Ω DC 500V MEGA		
Life	Electric: at least 500,000 times / Mechanical: at least 5,000,000 times		
Workable temperature range	0-80°C (Non Condencing)		



Unit: mm

How to order

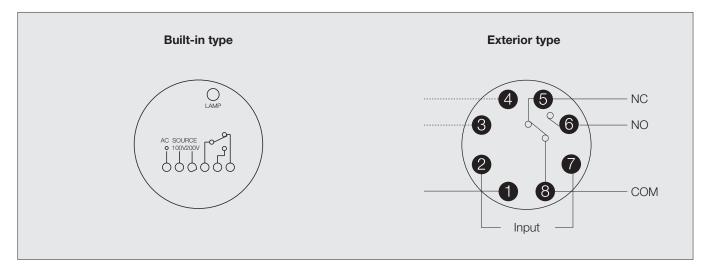


Dimensions (built-in type/exterior type)

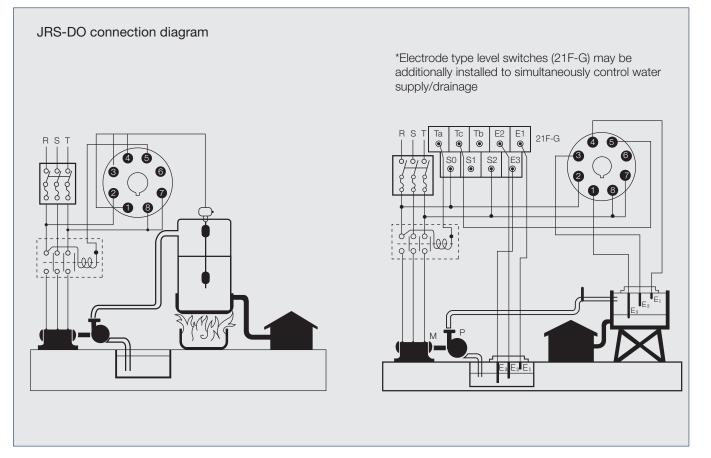
JRS-S 4-ø15 Hole 125 2 60 18 L1 89 ø110 Ø37 90 8 JRS-D 125 12 60 18 L2 L1 27 80 ø110 ø80 ┋╋┋╋ 37 90 8 4-ø15 Hole



Wiring



Example of use



-Parker

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