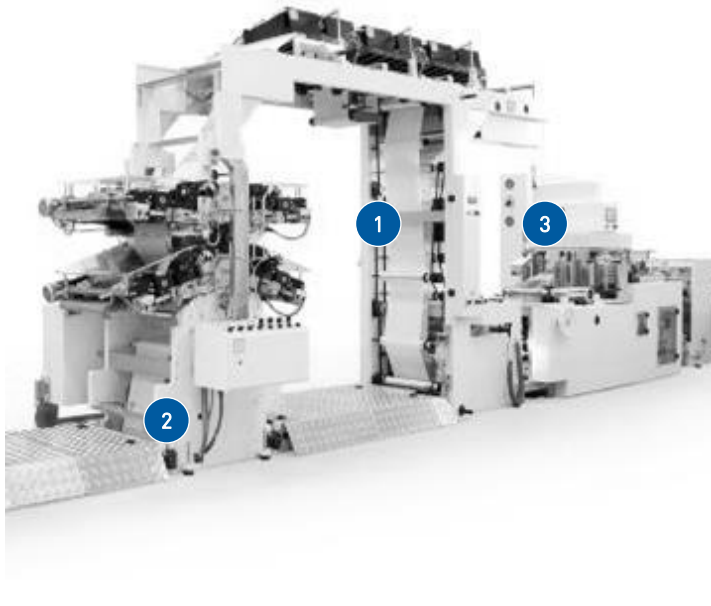


APPLICATION DESCRIPTION



1 – Position control for hydraulic cylinders

A Reed Sensor or PCB mounted Reed Switch detects via a Magnet in the door when the door is opened. A light is switched on then. In addition some time counter can be activated to give an alarm signal if the door stays open for a certain time.

2 – Coolant/lubricant/fluid level control

Some bigger refrigerators or wine coolers are using fans on the inside to distribute chilled air within the cooling chamber. These fans can be switched off when a door opens (controlled by Reed Sensor and Magnet) to prevent blowing cold air or particles into to the users face.

3 – Flow metering, tank level control

Modern refrigerators do offer automatic ice cube makers. Those need to have a water tank. The water level inside the tank can be checked with either a float with an magnet inside and the Sensor outside or with a conventional Level Sensor within the tank. If the water level drops below a certain point a warning will be issued and the machine will stop producing ice cubes.

Automation and Engineering

PIC PRODUCTS IN USE

> Reed Sensors



> Tubular Threaded Reed Sensors



> Level Sensors



For detailed product info visit:
www.pic-gmbh.com/en/products/

APPLICATION DESCRIPTION



1 – Speed Measurement

A spoke mounted Customized Magnet actuates a Reed Switch that is located inside a special housing attached to the inside of the fork. A small computer calculates the current speed, average speed, trip mileage, total mileage and many more data based on the given tire diameter.

These data is shown and recorded for information purpose (training or tracking trips with a bicycle) or used to control motors and other auxiliary systems (Pedelects or E-Bikes).

Bicycles , Pedelects and E-Bikes

PIC PRODUCTS IN USE

> Reed Switches



> Customized Housings

> Customized Magnets

For detailed product info visit:
www.pic-gmbh.com/en/products/

APPLICATION DESCRIPTION



Automatic coffee machines

PIC PRODUCTS IN USE

> Reed Sensors



> Customized Float with integrated Magnet



1 – Water level detection in water tank

A magnet incorporated into a float is following the water level in the water tank. If the level drops the magnet activates a Reed Sensor located in the housing of the machine, a signal to re-fill is issued and the machine will stop providing coffee to avoid running dry.

2 – Position control of drip tray/coffee grounds container

A Magnet attached to the waste water bin can activate a Reed Sensor in the machine to ensure that coffee brewing can only be done when the waste bin and dip tray are placed properly.

3 – Position of filler funnel cover

Most modern automatic coffee machine allow the usage of ground coffee as well. The filler funnel for this is also used to get detergent into the machine during the regular cleaning process. A magnet in the cover and an according placed Reed Sensor are providing the information if the cover is open or closed.

For detailed product info visit:
www.pic-gmbh.com/en/products/

APPLICATION DESCRIPTION



1 – Door control

A Magnet incorporated into the door actuates a Reed Sensor or PCB Assembled Reed Switch when the door is closed. The washing program starts and will be interrupted every time the door is opened.

2 – Rinse aid /brilliant fluid level check

The tank for the rinse aid/brilliant fluid is equipped with a magnet in a float (e.g. stainless steel or foamed PA/PP material) A Reed Sensor or PCB Assembled Reed Switch outside of the tank will be actuated when the fluid level comes to a certain level. A warning is issued then.

Dish Washer

PIC PRODUCTS IN USE

> Reed Sensors



> SMD Reed Switches



For detailed product info visit:
www.pic-gmbh.com/en/products/

APPLICATION DESCRIPTION



Dryer

PIC PRODUCTS IN USE

> Reed Sensors



> SMD Reed Switches



> Level Sensors



1 – Door control

A Reed Sensor or PCB mounted Reed Switch detects via a Magnet in the door if it is opened or closed. A closed door will allow the start of any drying program, opening the door will interrupt the program and drum movement.

2 – Drum movement

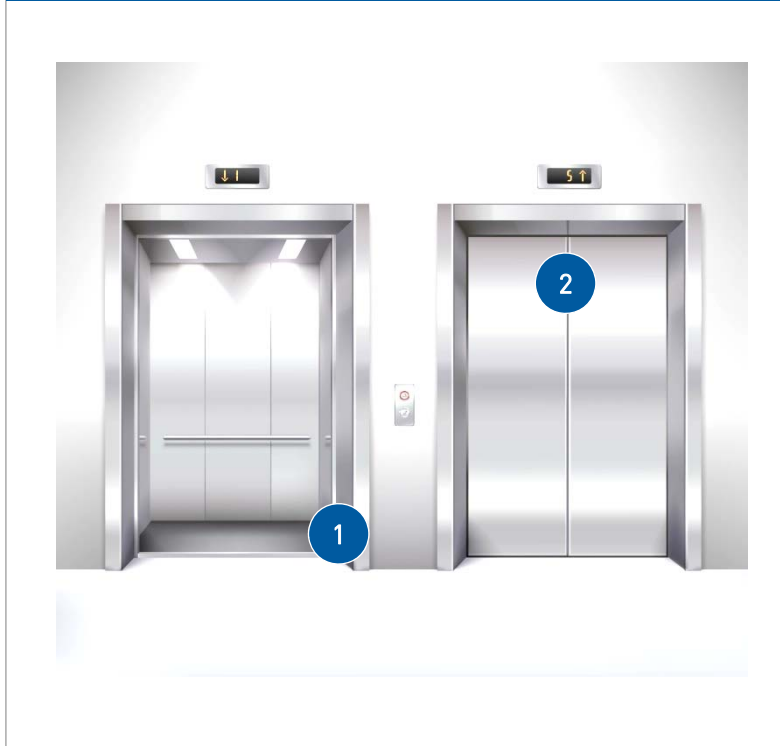
Several Magnets attached to the drum can actuate Sensors assembled around the drum to control or measure drum movement and speed.

3 – Condensate water level/pump control

A Level Sensor or Float/Sensor combination inside the condensate tank will activate the condensate pump when the condensate liquid reaches a certain level.

For detailed product info visit:
www.pic-gmbh.com/en/products/

APPLICATION DESCRIPTION



1 – Cabin Position Control

Reed Switches or Reed Sensors on the outside of the elevator or within the elevator shaft are actuated by magnets which are attached to the moving cabin. With the occurring signal the control unit knows in which level the cabin is at the moment.

In general there are two possibilities: Using an normal/monostable Reed Switch for just giving a signal per floor or using a bistable Reed Switch which will keep its ON-Status after the cabin has passed. In this case there is often a switchboard at each floor which indicates on which level the elevator currently is by illuminating some floors. Also the direction of cabin movement is monitored in this way (up or down).

2 – Door closure/Motor Slow Down

Reed Sensors are used to detect the closing of the cabin door. Typically there are regulations that the proper closure of the door has to be detected by a mechanical switch.

Nevertheless very often Reed Sensors are used to check the proximity of both door sides to regulate/slow down the motor which closes the door. In this way it is avoided to slam the doors together.

Elevator Systems

PIC PRODUCTS IN USE

- > Monostable Reed Switches
e.g. PMC-2003



- > Bistable Latching Reed Switches e.g. PMC-2003X



- > Reed Sensors e.g. MS-328
plus matching Magnet



- > Customized PCB assemblies
and Sensor Housings

For detailed product info visit:
www.pic-gmbh.com/en/products/

APPLICATION DESCRIPTION



Pad/Capsule Coffee maker

PIC PRODUCTS IN USE

> PIC MS-324



> Customized Float with integrated Magnet



1 – Water level detection in water tank

A magnet incorporated into a float is following the water level in the water tank. If the level drops the magnet activates a Reed Sensor located in the housing of the machine, a signal to re-fill is issued and the machine will stop providing coffee to avoid running dry.

2 – Position control of drip tray/coffee grounds container

A Magnet attached to the waste water bin can activate a Reed Sensor in the machine to ensure that coffee brewing can only be done when the waste bin and dip tray are placed properly.

3 - Position of capsule/pad holder

Modern Pad- or Capsule coffee machines utilize high pressures during the brewing process. If the capsule- or pad-holder is not placed correctly and locked firmly hot water might exit through a potential gap.

For detailed product info visit:
www.pic-gmbh.com/en/products/

APPLICATION DESCRIPTION



Refrigerator

PIC PRODUCTS IN USE

> Reed Sensors



> SMD Reed Switches



> Level Sensors



For detailed product info visit:
www.pic-gmbh.com/en/products/

1 – Door control

A Reed Sensor or PCB mounted Reed Switch detects via a Magnet in the door when the door is opened. A light is switched on then. In addition some time counter can be activated to give an alarm signal if the door stays open for a certain time.

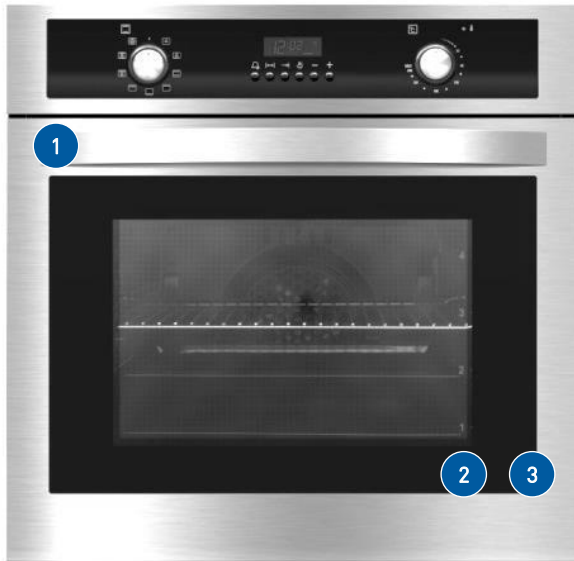
2 – Fan control

Some bigger refrigerators or wine coolers are using fans on the inside to distribute chilled air within the cooling chamber. These fans can be switched off when a door opens (controlled by Reed Sensor and Magnet) to prevent blowing cold air or particles into to the users face.

3 – Water level control for automatic ice cube makers

Modern refrigerators do offer automatic ice cube makers. Those need to have a water tank. The water level inside the tank can be checked with either a float with an magnet inside and the Sensor outside or with a conventional Level Sensor within the tank. If the water level drops below a certain point a warning will be issued and the machine will stop producing ice cubes.

APPLICATION DESCRIPTION



Steamer/Oven

PIC PRODUCTS IN USE

> Reed Sensors



> SMD Reed Switches



> Level Sensors



For detailed product info visit:
www.pic-gmbh.com/en/products/

1 – Door control

A Reed Sensor or PCB mounted Reed Switch detects via a Magnet in the door when the door is opened. A warning can be issued, light switched on, a fan be switched of etc. with this detection..

2 – Position control water tank

Most steamers do have a removable water tank. The proper position of the tank inside the steamer can easily be checked with a Magnet attached to the tank actuating a Sensor inside the steamer when the tank is in the right position.

3 – Water level control

The water level inside the tank of a steamer can be checked with either a float with a magnet inside and the Sensor outside or with a conventional Level Sensor within the tank. If the water level drops below a certain point a warning will be issued and the machine will not produce steam any more.

APPLICATION DESCRIPTION



1 – Door control

When the door is closed a Reed Sensor or a PCB assembled Reed Switch inside the Washing Machine is actuated by a magnet which is located in the door. With this safety check the electronic control will disable or enable the washing programs/the flow of water.

2 – Drum position

One or more Magnets are attached to the Toploaders drum and are actuating Reed Sensors. With this easy position control the Washing Machine can check if the drum is in the correct position before unlocking the door.

Washing Machine

PIC PRODUCTS IN USE

> Reed Sensors



> SMD Reed Switches



For detailed product info visit:
www.pic-gmbh.com/en/products/

APPLICATION DESCRIPTION



1 – Detection of water flow, burner activation

Flow type water heaters provide warm water on demand. As soon as the hot water tap is opened the following procedure occurs:

1. Cold fresh water streams into the water heater
2. A Flow Sensor (combination of Reed- or Hall-Sensor and Magnet) detect the flow of fresh cold water and activate the burner
3. The water is directed around a heat exchanger and is warmed to a specific warmth
4. When the hot water tap is closed no more fresh cold water streams into the water heater, the flow ends and the burner is turned off by the Flow Sensor

Usually the Flow Sensor is using a special housing with the magnet inside incorporated into the water line and a Reed Sensor or Hall Sensor on the outside of the housing.

Generally there are two ways of flow detection and movement of the used Magnet:

A.) Driven by gravity: The magnet is attached to a float, the fresh water streams from the bottom to the top and lifts the magnet up to a position where it switches. As soon as there is no more water flow the magnet falls back down and the Sensor is de-activated.

B.) Driven by pressure: The magnet is mounted to a mechanic spring. The pressure of the water pushes the feather and the magnet until the magnet is in the right position to switch the Sensor on. As soon as there is no more water flow the spring with the magnet will go back to its original position and the Sensor and burner is switched off.

Flow Type Water Heaters

PIC PRODUCTS IN USE

- > Reed Sensors
- > Hall Sensors
- > Magnets
- > Customized Housings



For detailed product info visit:
www.pic-gmbh.com/en/products/