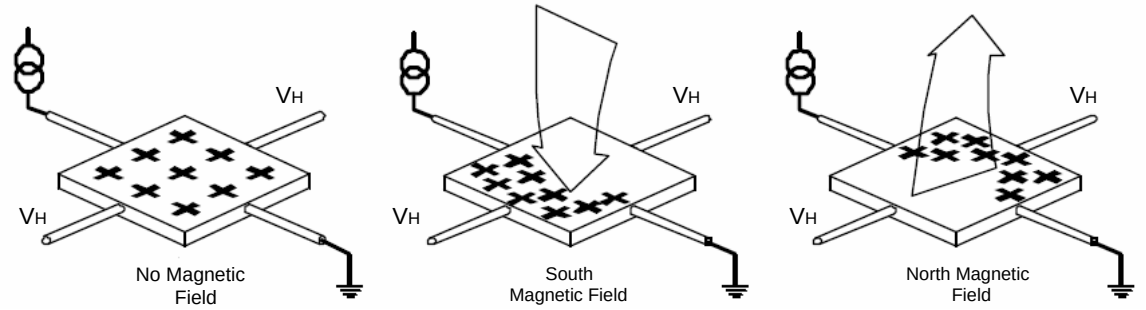
What is "Hall Effect" ?

The Hall-Effect principle is named for physicist **Edwin Hall**. In 1879 he discovered that when a conductor or semiconductor with current flowing in one direction was introduced perpendicular to a magnetic field a voltage could be measured at right angles to the current path.

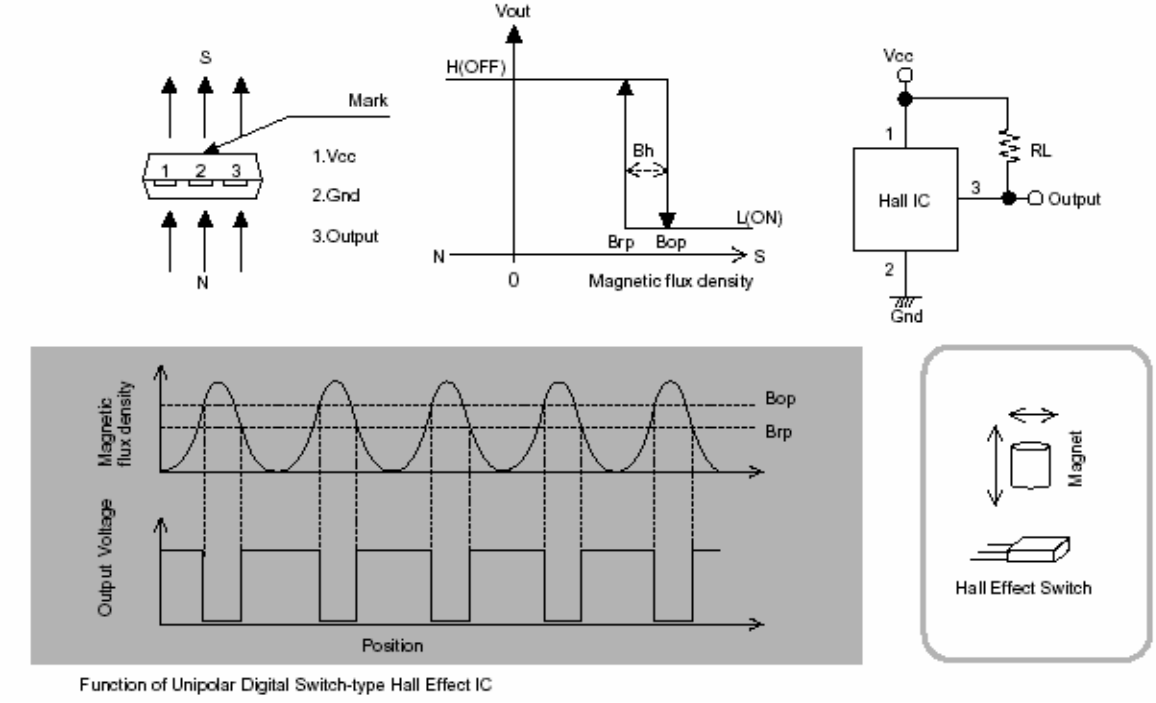


The Hall voltage can be calculated fromVHall= σB where:
VHall = emf in volts
σ= sensitivity in Volts/Gauss
B = applied field in Gauss
I = bias current

Hall Effect Senor IC Categories

- Bipolar Hall Switch
- Unipolar Hall Switch
- Latch Hall Sensor IC
- ratiometric linear hall Effect I*C*

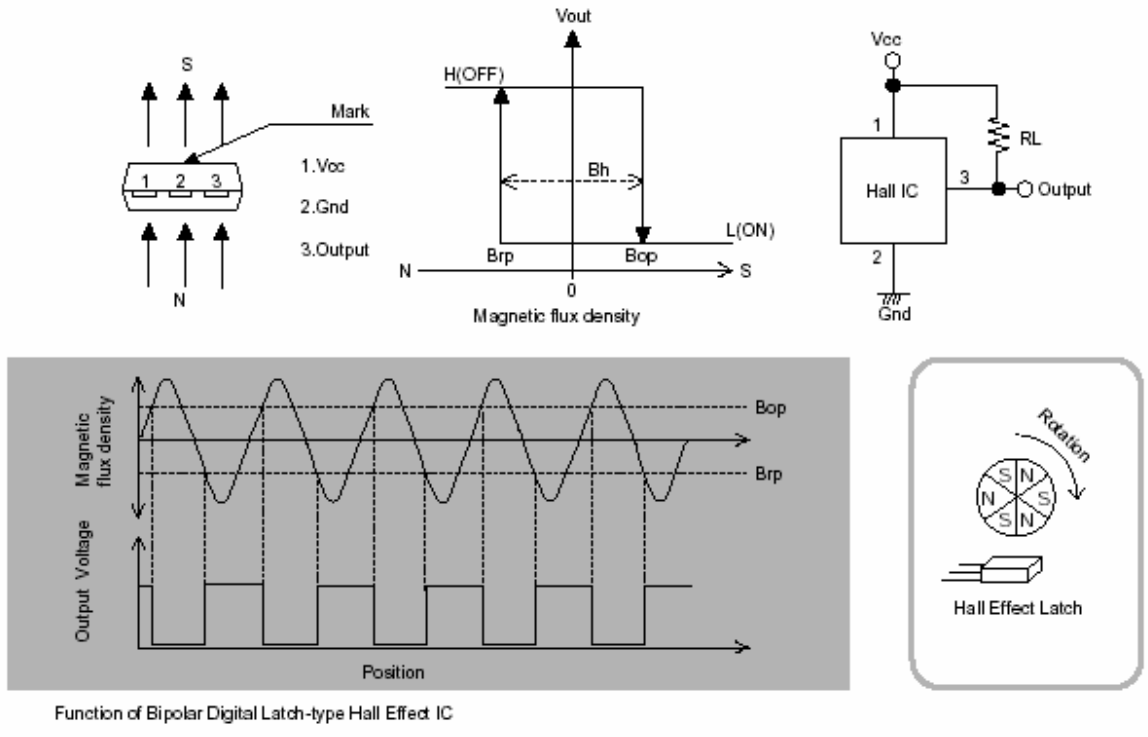
1. What is Unipolar Hall Switch



Function of Unipolar Digital Switch-type Hall Effect IC

only one polar(S or N) coming become on, away magnet become off

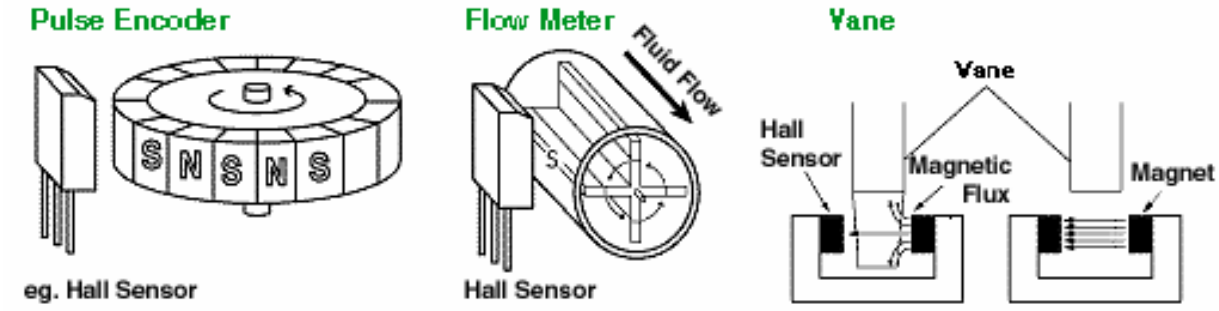
2. What is Latch Hall Sensor IC



S on and keep on until to N off

Typical Applications

Rotational Speed Sensors



*Application : Motor Speed Sense.
Pause Decode

* Part No : MH181/MH182/MH185

*Application: Pause Water Meter
Gas Meter
Energy Meter

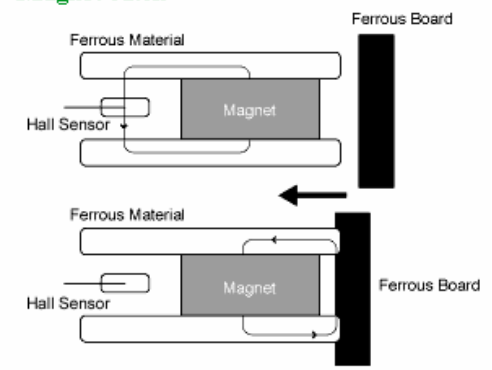
*Part No : MH181/MH182/MH183
MH185

* Application: DC Motor Speed Sense.
Pause Decode

*Part No. : MH181/MH182/
MH183/MH249

Ferrous Material Detectors & Current Sensors

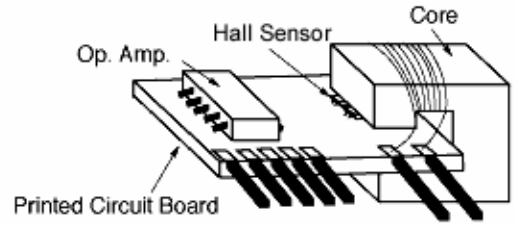
Magnet catch



* Application ： Detect Switch

* Part No ： MH181/MH182
MH183/MH249

Fax Machine

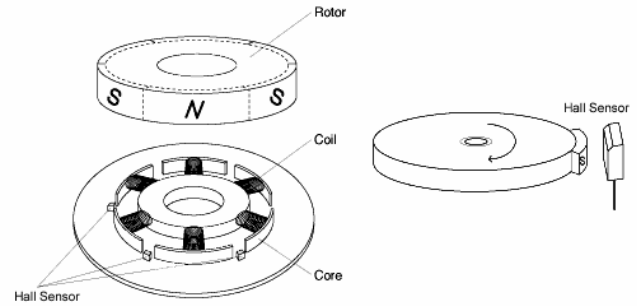


Current Switch

* Application ： Fax Machine.
Current Switch

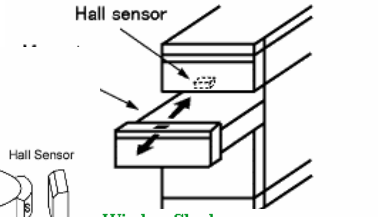
* Part No : MH181/ MH182/ MH183/MH184

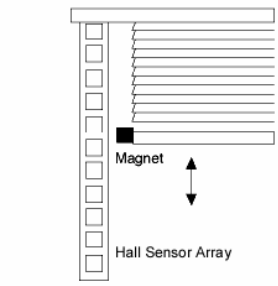
Position Sensors

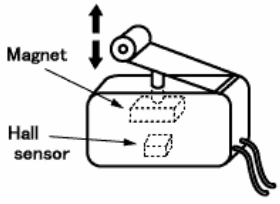


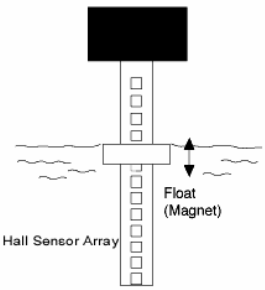
* Application ： DC FAN. DC Motor

* Part No ： MH181 / MH277/MH182





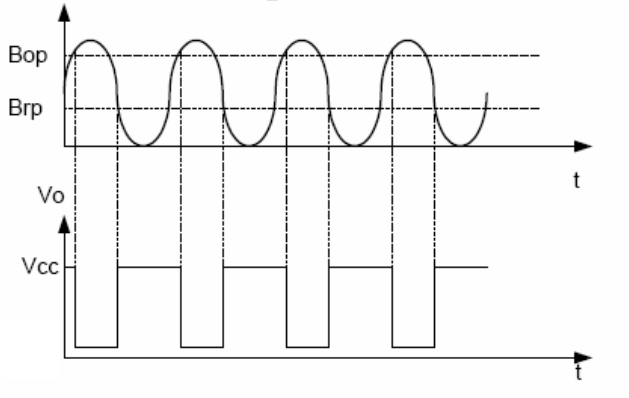


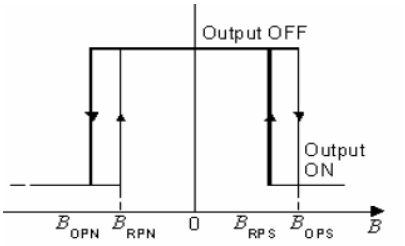


•Application ： Security Sensor Micro Switch
• Window Sensor Fluid lever Meter

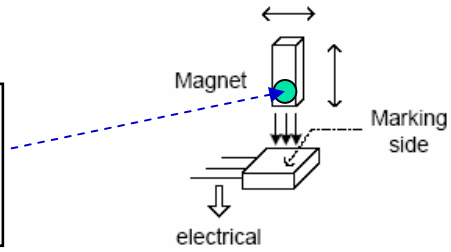
* Part No : MH183/MH249

3.What’s Omni-polar Switch IC?



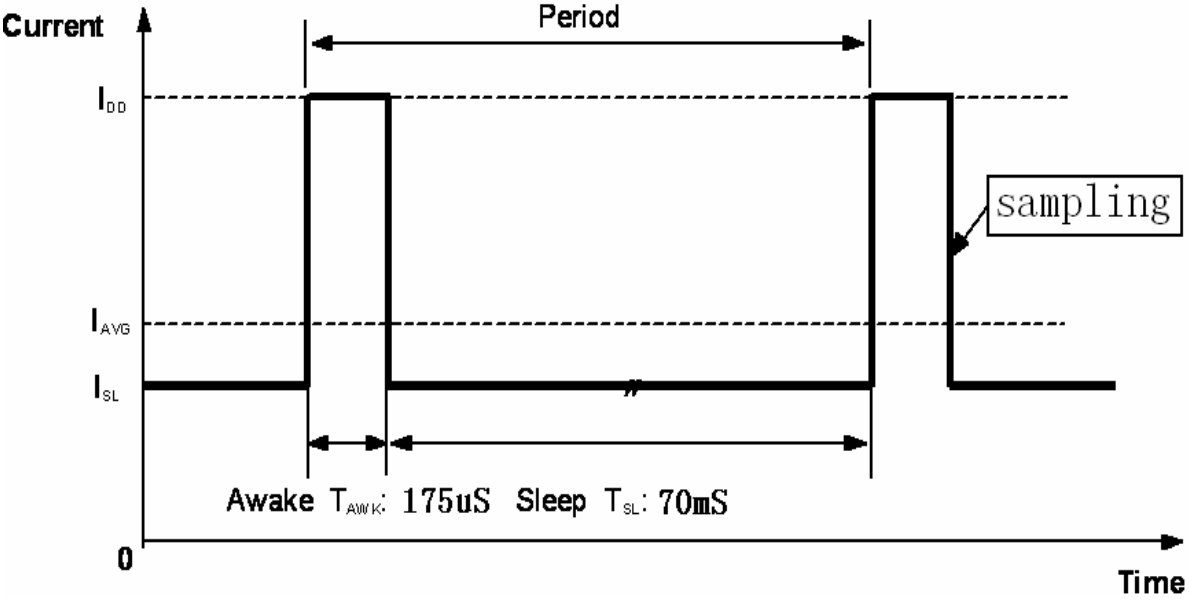


Advantage: Either operating for ***S*** or ***N pole***, easy for manufacturing on magnetic placement.



no matter S or N coming become on, away magnet become off

What’s Low Power Switch IC



Low Power Switch is low standby current by Sampling Time Interval

Typical Applications

Portable Device ：Clam/Slide Cell Phone (MH248 focus)/ NB / Portable DVD / MP3 / DSC



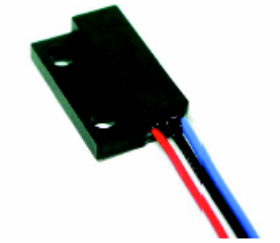


* Application ： Portable Device

* Part No ： MH248

Equipment needed to know cycles

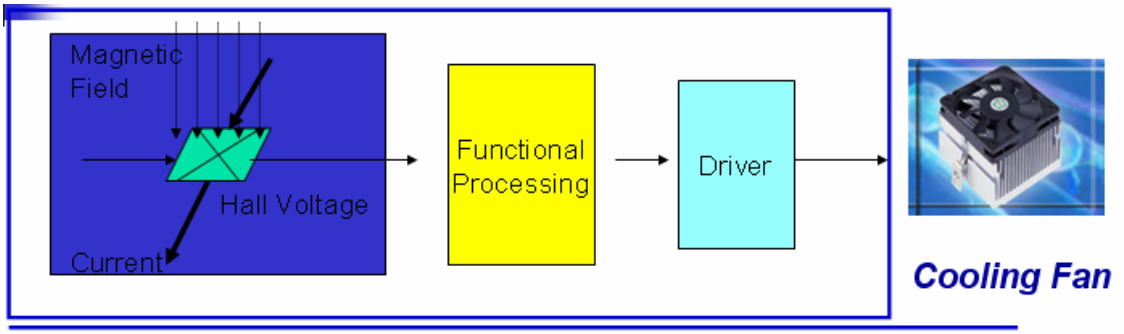
Coffee Machine/vacuum cleaner /Sports equipment



* Application ： cycles

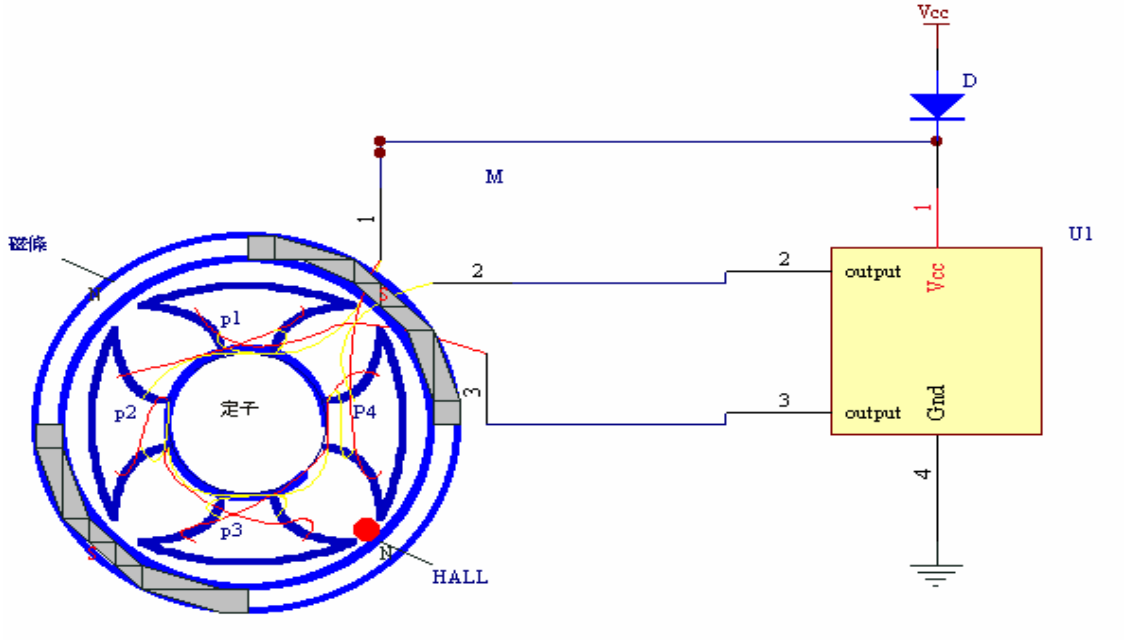
* Part No ： MH249

4.What's All-in-One Driver IC

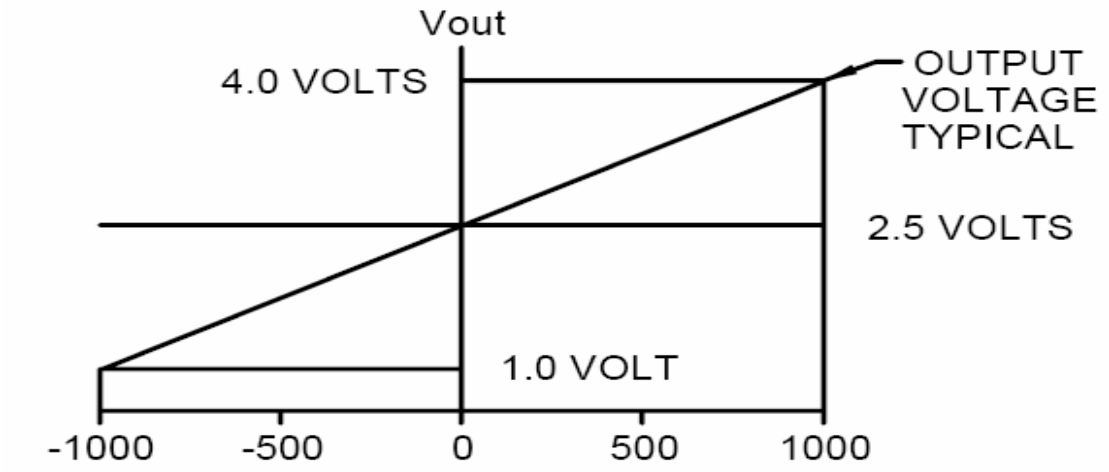


All-in-One Driver IC(Hall Element + Function IC + Driver)MH277
Hall Effect IC + MCU : MH177/MH181/MH182

DC FAN operate theory



5. Linear Hall Effect IC



The linear sourcing output voltage is set by the supply voltage and varies in proportion to the strength of field.

Applications

Current sensing
Motor control
Magnetic code reading
Rotary encoder

* Application ： current sensing/motor control
* Part No ： MH184