HALL EFFECT PROXIMITY SENSORS & SWITCHES

MHPS-Series

Introduction:

MHPS series of high performance hall effect proximity sensors/switches are available in available in more than 25 different models in cylindrical/fasten/threaded barrels in variety of dimensions and in different contact voltage/current rating. These hall effect proximity sensors/switches, virtually offers solutions to flow, speed, torque, power, frequency measurement and control in paper, machine-tools, plastic/yarn, milk/brewery plant, petrochemical industry, organic/inorganic chemical, rubber, sugar, textiles, water management/treatment, heavy electrical/mechanical industries, research and development organizations and many defense applications. Special machine design ensures better efficiency and enhanced torque transmission.

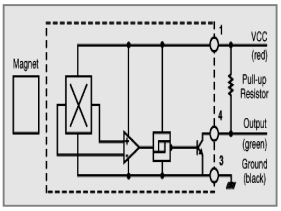
Operating Principle:

Hall effect proximity sensors are suitable for the detection of ferromagnetic/ferromagnetic elements. The operating principle is based on The Hall element, which is placed in a small air gap, changes the state under the influence of feeble magnetic field. This sensor also offers a galvanic isolation. The small output voltage of the Hall element is amplified to generate output pulse with high degree of stability and repeatability. The sensing accuracy of the sensor depends on the actuator shape and size and is strictly linked to the nature of the metal. The cases of the Hall Effect proximity sensors can be a metallic cylindrical, plastic or metallic rectangular or plastic slot.

Cylidrical threaded non flash

Cylidrical threaded flash type

Fasten mounted with hole



schematic of hall sensor

Electrical and mechanical specifications of Hall effect proximity sensors/switches: **2.0< Pr<50.0 Watts**

Techniocal data	*Cyledrical W/ W.O. collar Flush/Non flush*	*Cyledrical W/ W.O. collar Flush/Non flush*	*Cyledrical W/ W.O. collar Flush/Non flush*	*Cyledrical W/ W.O. collar Flush/Non flush*	*Cyledrical w/th W/ W.O. collar Flush/Non flush*	*Cuboidal With hole*	*S.M.D. mouting*
Housing size	M12	M18	MM30	M48	D=4/D=6.5	**18x18x36 mm**	**12x26x40 mm**
Output mode	PNP/NPN	PNP/NPN	PNP/NPN	PNP/NPN	PNP/NPN	PNP/NPN	PNP/NPN
Supply voltage[D.C.]	12-24	12-24	12-24	12-24	12-24	12-24	12-24
Sense range [m.m.]	1.8/2.5	4.0/5.6	8.0/12.0	18	4	4	2.4/4
Load/work current[m.a.]	< 100	< 100	< 100	< 100	< 100	< 100	< 100
switching frequency [Hz]	100000	100000	100000	100000	100000	100000	100000
Hysteresis band[mili ohm]	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%	+/- 10%
Connection mode	D=5 , 2mm	D=5 , 2mm	D=5 , 2mm	D=5 , 2mm	D=5 , 2mm	D=5 , 2mm	D=5 , 2mm
Ambient temp ^{O}C	120	120	120	120	120	120	120
Temperature variation^{O}C	50	50	50	50	50	50	50
Reverse polarity protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Short circuit protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Shock resistance[g]	50	50	50	50	50	50	50
Housing material	S.S./Brass/Nylon	S.S./Brass/Nylon	S.S./Brass/Nylon	S.S./Brass/Nylon	S.S./Brass/Nylon	S.S./Brass/Nylon	S.S./Brass/Nylon
Storage Temperature^{O}C	85	85	85	85	85	85	85
Protection class	IP67	IP67	IP67	IP67	IP67	IP67	IP67
Termination	X/Y/Z	X/Y/Z	X/Y/Z	X/Y/Z	X/Y/Z	X/Y/Z	X/Y/Z

Shapes of effect Hall effect proximity sensor:

plug -in type hall sensor

Sensor with mounting

sensor for gear sensing

MOTORON SEMICONDUCTORS CORPORATION

11, Shri nagar colony, shakti nagar extension, DELHI-110052. Tel:011-23648181/23655454 fax:011-23585424

e.mail: motoronenergy@hotmail.com