



Selection Guide of Hall Effect Sensor Elements/ICs

Linear Hall Effect Elements (analog output)

Description	Part number	Features	Typical Applications
GaAs Hall Effect elements	CYSJ411 CYSJ422 CYSJ119 CYSJ1069 CYTHS119 CYTHS124	<ul style="list-style-type: none">• High linearity• Low offset voltage• Excellent thermal stability• wide operating temperature range• plastic spatial resolution• high spatial resolution• High magnetic sensitivity	<ul style="list-style-type: none">• Detection of speed• Position control• Contactless switches• Brushless D.C motors• Magnetic field measurements• Current sensors/transducers• Detection of Revolution
InSb Hall Effect elements	CYTY211 CYTY300B CYTY320 CYSH12AF	<ul style="list-style-type: none">• High magnetic sensitivity• high linearity• High spatial resolution,• Low offset voltage	<ul style="list-style-type: none">• Brushless DC motors• Current sensors/transducers• Magnetic field measurements• Position control• Speed detection

SMD Hall Effect Sensor ICs (digital output)

Description	Part number	Features	Typical Applications
SMD Hall Effect ICs	CYD543 CYD513 CYD3601 CYD3661	<ul style="list-style-type: none">• Wide supply voltage range• Fast response time• Wide frequency and temperature range• Long operating life• Small size, convenient installing• Output compatible with all digital logic families	<ul style="list-style-type: none">• Contactless switches• Speed measurements• Isolation measurements• Automotive igniters• Position control• Revolution detection• Brushless dc motors

Linear Hall Effect Sensor ICs (analog output)

Description	Part number	Features	Typical Applications
Linear Hall Effect Sensor ICs	CYL3503	<ul style="list-style-type: none"> • High linearity • High sensitivity • Low output resistance • Long operating life 	<ul style="list-style-type: none"> • Magnetometer • Speed detection • Remote instrument • Ferrous metal detection • Notch sensing • Brushless DC motors • Contactless distance measurements • motion detection • Gear-tooth sensors • Proximity detectors • Current sensors/transducers • Speed control systems
	CYL49E	<ul style="list-style-type: none"> • Low current consumption • High sensitivity • Wide linear range 	<ul style="list-style-type: none"> • Sport equipment • Hall Effect current sensors • Speed control systems in electronic bicycles and scooters

Bipolar Hall Effect Sensor ICs (digital output)

Description	Part number	Features	Typical Applications
	CYD1024	<ul style="list-style-type: none"> • High Sensitivity • Resistant to Physical Stress • Wide Supply Voltage Range • Interfacing with All Kinds of Logic Circuits Directly 	<ul style="list-style-type: none"> • High sensitive Contactless switch • Brushless DC motors • Brushless DC fans
Complementary Dual-Output Hall Effect IC	CYD277	<ul style="list-style-type: none"> • Temperature compensation • wide temperature range • Open collector complementary output • Low cost, 4 pin SIP package • High reliability and easy welded for electroplating with tin alloy 	<ul style="list-style-type: none"> • High sensitive Contactless switch • Brushless DC motors • Brushless DC fan motors in big power

Unipolar Hall Effect Sensor ICs (digital output)

Description	Part number	Features	Typical Applications
CYD3100 Series Hall Effect digital ICs	CYD3120	<ul style="list-style-type: none">• Low current consumption• Wide supply voltage range• Fast response time• Wide frequency range (DC - 100KHZ)• Long operating life• Small volume, install conveniently• Be compatible with digital logic families	<ul style="list-style-type: none">• Position control and detect• Speed control and detect• Igniters• Warning devices• Braking ICs• Weaving control systems
	CY3141E		
	CY3142E		
	CY3143E		
	CY3144E		

Hall Effect Latching ICs (digital output)

Description	Part number	Features	Typical Applications
Hall Effect Latching ICs	CYD3172X	<ul style="list-style-type: none">• High sensitivity• Resistant to physical stress• Wide supply voltage range• Interfacing with All Kinds of Logic Circuits Directly	<ul style="list-style-type: none">• High sensitive Contactless switches• Brushless DC motors• Brushless DC fan motors
	CYD512		
	CYD175		