

# CHERRY Hall Effect Speed and Proximity Sensors CHERRY

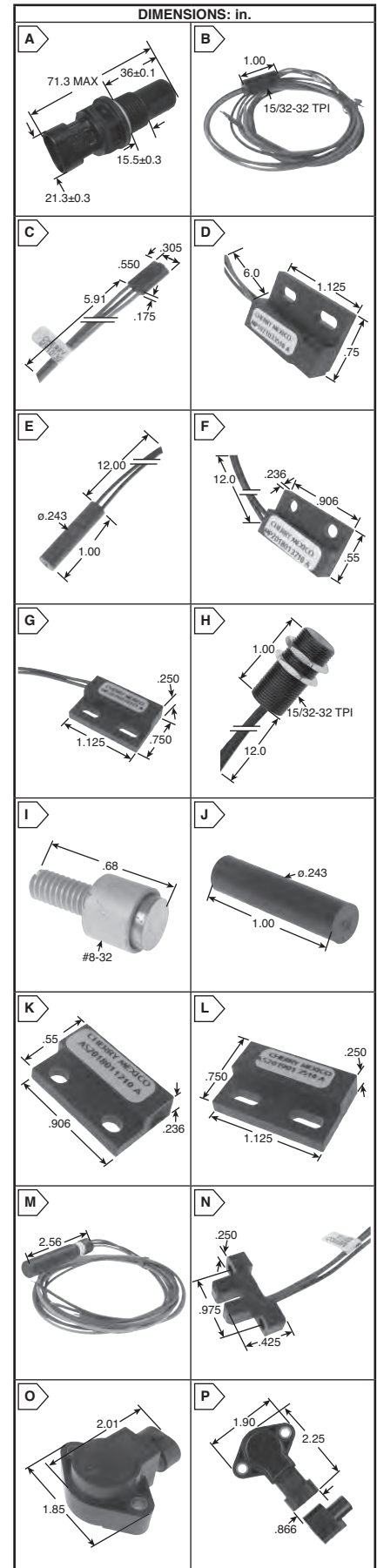
## CHERRY GEARTOOTH SPEED SENSOR

**Features:**

- ESD resistant to 15kV (contact discharge)
- Mating connector Packard sealed female connector assembly 3F
- Supplied with installed Vit on O-ring
- Installs into a standard M20 x 1.5 O-ring port
- Capable of operating up to 140°C

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Cherry Part No.	Fig.	Description	Supply Voltage	Supply Current Max.	Price Each		
						1	50	100
540-GS102301	GS102301	A	Geartooth Speed Sensor	9 to 16 volts	6mA	28.66	26.90	25.71



## CHERRY SOLID STATE MAGNETIC PROXIMITY SENSORS

Packaged Hall Effect magnetic proximity sensors are ready to use, requiring only an external pull-up resistor. All are three-wire devices with sinking output compatible with any logic family. These sensors are operated by approaching magnet. These solid state devices have virtually unlimited life and are resistant to dirt, moisture, etc.

**Specifications:**

- Operating Temperature Range: -40°C to +85°C

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Cherry Part No.	Fig.	Description	Supply Voltage	Supply Current Max.	Output Voltage Max.	Price Each			
							1	50	100	250
540-MP100701	MP100701	B	Threaded barrel magnetic proximity	4.75-24VDC	16mA	0.7VDC	24.64	20.54	18.99	15.40
540-MP101301	MP101301	C	Molded snap-fit magnetic proximity	4.75-24VDC	9mA	0.4VDC	6.14	5.30	4.91	4.02
540-MP102103	MP102103	D	Flange mount magnetic proximity	4.50-24VDC	12mA	0.5VDC	5.85	5.01	4.81	4.56

## CHERRY MAGNETIC PROXIMITY SENSORS

The Cherry reed sensor is an omnipolar, magnetically activated switch. These sensors consume zero power and are hermetically sealed for resistance against moisture and dirt. All sensors include 12" PVC-insulated flying leads.

**Specifications:**

- Operating Temperature Range: -40°C to +105°C

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Cherry Part No.	Fig.	Description	Switching Voltage Max.	Switching Current Max.	Price Each			
						1	50	100	250
540-MP201701	MP201701	E	SPST-N/O smooth barrel	100VDC	0.5A	3.21	2.68	2.47	2.01
540-MP201702	MP201702	E	SPST-N/C smooth barrel	30VDC	0.2A	5.32	4.44	4.10	3.33
540-MP201801	MP201801	F	SPST-N/O miniature flange mount	100VDC	0.5A	3.50	2.92	2.51	2.30
540-MP201802	MP201802	F	SPST-N/C miniature flange mount	30VDC	0.2A	5.37	4.48	4.14	3.36
540-MP201901	MP201901	G	SPST-N/O flange mount	100VDC	0.5A	3.62	3.02	2.79	2.26
540-MP201902	MP201902	G	SPST-N/C flange mount	30VDC	0.2A	5.49	4.38	3.61	3.29
540-MP201903	MP201903	G	SPDT-C/O flange mount	30VDC	0.2A	5.50	4.40	3.86	3.72
540-MP200701	MP200701	H	SPST-N/O threaded barrel	100VDC	0.5A	10.22	8.52	7.88	6.39

## Actuator Magnets

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Cherry Part No.	Fig.	Description	Price Each			
				1	50	100	250
540-AS101001	AS101001	I	Magnet Stud-South Pole	5.18	4.32	3.99	3.24
540-AS201701	AS201701	J	Magnet Actuates Sensor MP2017 at .150"	3.02	2.52	2.33	1.89
540-AS201801	AS201801	K	Magnet Actuates Sensor MP2018 at .250"	3.14	2.51	2.07	1.89
540-AS201901	AS201901	L	Magnet Actuates Sensor MP2019 at .400"	3.44	2.75	2.26	2.06

## CHERRY SOLID STATE SPEED SENSORS

These magnetically-biased Hall Effect devices sense the rotation of a ferrous target, such as a geartooth, or sprocket. They offer high speed and near-zero speed sensing capability. All have current sinking output. All but GS100701 provide additional circuit protection for immunity against electrical interference. M12 Integral connector meets IEC60947-5-2

**Specifications:**

- Operating Temperature Range: -40°C to +105°C

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Cherry Part No.	Fig.	Description	Supply Voltage	Supply Current Max.	Output Voltage Max.	Price Each			
							1	50	100	250
540-GS100502	GS100502	M	M12-1 aluminum barrel	4.5-24VDC	6mA	0.4VDC	30.48	25.40	23.49	19.05
540-GS100701	GS100701	B	15/32" aluminum barrel	4.5-24VDC	6mA	0.4VDC	30.81	24.65	20.33	18.48

## CHERRY VANE SENSORS

Magnetically-activated digital vane switch in a rugged, overmolded plastic housing with three pins or 3 individual wires. Immune from moisture and dust, they are reliable and repeatable, with no mechanical contacts to wear out. Compatible with all logic families.

**Specifications:**

- Operating Temperature Range: -40°C to +85°C
- RoHS Compliant

For quantities greater than listed, call for quote.

540-VN101503	VN101503	N	Vane sensor w/ 5.9" flying leads	4.50-24VDC	6mA	0.4VDC	11.22	8.98	8.52	7.66
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## CHERRY INTRINSICALLY LINEAR ANGULAR POSITION SENSOR

The Intrinsically Linear Angular Position Sensor (ILAPS™) uses Cherry's patent-pending non-contact design to achieve linear output from 5° to 90° of rotation. With no contacts to wear out, it is not vulnerable to dither, and life is tested to over 10 million operations.

**Specifications:**

- Operating Temperature Range: -40°C to +85°C

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Cherry Part No.	Fig.	Description	Input Voltage	Input Current Max.	Output Linearity	Price Each			
							1	50	100	250
540-AN101101	AN101101	O	Angular Position Sensor	5.0vdc ±10%	10mA @5vdc	±2.0%	34.70	28.92	26.75	21.69

## CHERRY AN8 SERIES THIN ANGULAR POSITION SENSORS

Programmable, non-contact magnetic position sensors capable of continuous rotation

**Specifications:**

- Absolute angular position sensor with single output
- Provides non-contact angular position sensing to full 360° rotation
- No mechanical interface means no parts to wear out
- 5VDC ratiometric device
- Resilient to mechanical misalignment

**Applications:**

- Replacement for smart bearings
- PRNDL switch for harsh environments
- Steer wheel position for drive by wire systems

RoHS Compliant

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	Cherry Part No.	Fig.	Description	Input Voltage	Sensing Range	Output Linearity	Price Each			
							1	50	100	250
540-CU103601	CU103601	P	Sensor (AN820001) w/ Magnet	5.0VDC ±10%	180°	±2.0% Full Scale	43.64	40.14	36.93	33.98
540-CU103603	CU103603	P	Sensor (AN820003) w/ Magnet	5.0VDC ±10%	45°	±2.0% Full Scale	36.18	34.05	31.98	30.67