

55100 Miniature Flange Mount Hall Effect Proximity Sensor



Features

- Magnetically operated position sensor
- Digital, latching or programmable analogue types available
- Medium, high or programmable sensitivities
- 3 wire (voltage output) or 2 wire (current output) versions
- Reverse/Over voltage protection
- Built in temperature compensation

Benefits

- High switching speed up to 10kHz
- Long life; up to 20 billion operations
- Unaffected by harsh environments
- Operates in static or dynamic magnetic field
- Customer selection of cable length and connector type

Applications

- Position and limit sensing
- RPM measurement
- Flow metering
- Commutation of brushless dc motors
- Angle sensing
- Magnetic encoders

DIMENSIONS (in) mm



BLOCK DIAGRAM



Notes:
 1) Add capacitor Cn as shown, close to the sensor, for transient suppression if required.
 2) Add resistor Rpu as shown for sinking output

SPECIFICATIONS

Hall Type		Digital Switch or Digital Latch	Digital Switch or Digital Latch	A - Analogue
		3 Wire (Voltage Output)	2 Wire (Current Output)	(Programmable Only) (Note 2)
Supply Voltage (Note 1)	Absolute Ratings	Vdc	-15 to +28	8.5
	Operate	Vdc	+3.8 to +24	4.5 - 5.5
	Overvoltage Protection	Vdc - max.	32	19.5
Output High Voltage	Vdc	Sinking output	N/A	4.65
Output Low Voltage	Vdc - max.	0.4 @ 10mA	N/A	0.35
Output Current (continuously on)	mA - max.	10	N/A	-1.0 to +1.0
Current Consumption Over Temperature Range	Low	mA	1.6 - 5.2	2 - 10
	High	mA	1.6 - 5.2	2 - 10
Switching Speed	mA	10	10	2
Temperature	Operating	°C	-40 to +100	-40 to +100
	Storage	°C	-65 to +105	-65 to +105

Note 1: As long as Tj (Junction Temperature max. Is not exceeded).
 Note 2: Preprogrammed by Hamlin or Customer pending agreement.

CUSTOMER OPTIONS - Sensitivity, Cable Length and Termination Specification

Select Hall Option	Hall Type	Sensitivity Gauss (typ.)	Activate - d (in) mm
2M	2 Wire Switch	120	(.531) 13,5
2H	2 Wire Switch	57	(.728) 18,5
2L	2 Wire Latch	40	(.827) 21,0
3M	3 Wire Switch	130	(.492) 12,5
3H	3 Wire Switch	59	(.709) 18,0
3L	3 Wire Latch	86	(.394) 10,0
AP	Analog	Programmable	Consult Hamlin

SELECT OPTION	CABLE LENGTH (in) mm
01	(3.94) 100
02	(11.81) 300
03	(19.69) 500
04	(29.53) 750
05	(39.37) 1000

SELECT OPTION	DESCRIPTION (2 WIRE VERSION ILLUSTRATED)
A	Tinned Leads
D	AMP MTE 2.54mm pitch
E	JST XHP 2.5mm pitch

ORDERING INFORMATION

55100 - XX - XX - X



Hamlin USA Tel: +1 920 648 3000 • Fax: +1 920 648 3001 • Email: sales.us@hamlin.com
 Hamlin Europe Tel: +44 (0)1603 257700 • Fax: +44 (0)1603 257702 • Email: sales.uk@hamlin.com
 Hamlin China Tel: +86 (0) 512 69365 800 • Fax: +86 (0) 512 69365 811 • Email: sales.cn@hamlin.com