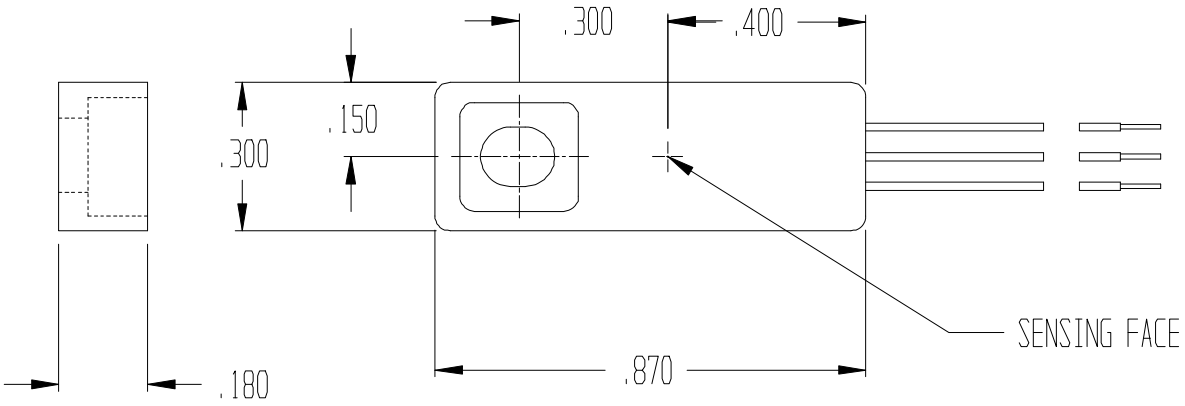
PHOENIX AMERICA INC.
5601 INDUSTRIAL ROAD
FORT WAYNE, IN 46825–5125

P3500
PROXIMITY SENSOR, MAGNET ACTUATED



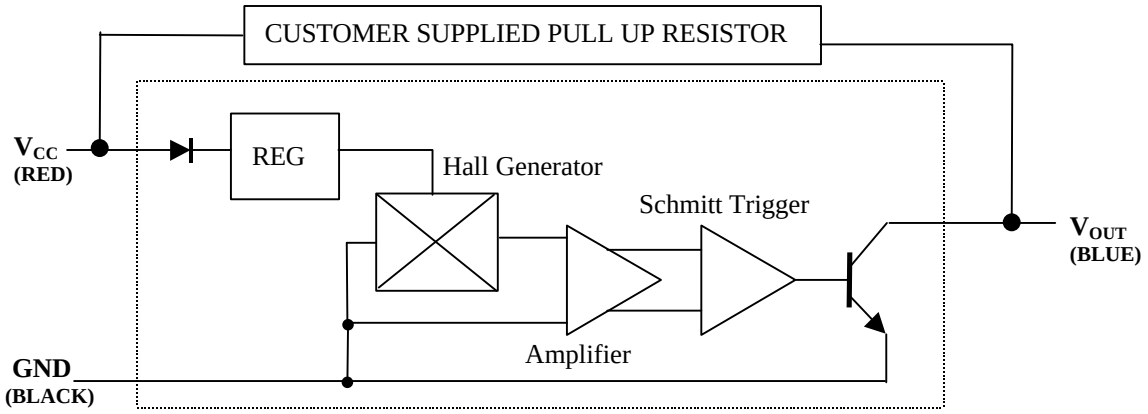
Sensor Description:
The P3000 Series sensor is a non-contact, solid state device that is magnetically actuated for a variety of proximity applications. The P3000 Series are designed to provide tight tolerance magnetic operating points. This ensures reliable and repeatable limit switching in both linear and angular position sensor applications. It has a rugged, thermoplastic housing and is ideally suited for many industrial environments. These products require a permanent magnet target, which offers the customer long range sensing and precise limit switching.

Features:
- Digital Output Signal
- 4-24 VDC Operation Range
- Current Sinking Output
- 20ma Continuous Operation
- Reverse Polarity Protection
- 0 to 100 kHz Operation
- Temperature Compensated
- Operation from –40°C to 125°C
- Rugged, thermoplastic housing

PART NUMBER	SENSOR DESCRIPTION
P3500	26 AWG Leads, 36" long

(Contact the factory for other options)

Functional Block Diagram



NOTE: A pull-up resistor is required on the open collector output to establish a quiescent voltage level. The pull-up resistor also provides faster rise times and improves noise immunity. Contact the factory for application assistance.

Magnetic Characteristics: (V_{CC} = 4.5 to 24 VDC @ 25°C)

Characteristics	Symbol	Limits			
		Min.	Typ.	Max.	Units
Operating Point	B_{OP}	140	150	160	Gauss
Release Point	B_{RP}	40	50	110	Gauss
Hysteresis	B_{HYS}	30	100	120	Gauss
Maximum Field Exposure	B_{MAX}	-800		800	Gauss
Active Element Depth	D_P			.050	Inch

Electrical Characteristics: (T = -40 to 125 °C)

Characteristics	Symbol	Test Condition	Limits			
			Min.	Typ.	Max.	Units
Supply Voltage	V_{CC}	Operating	4.5		24	VDC
Supply Current	I_S	V_{CC} = 4.5V; Output Open		4.7	8.0	mA
Output Current	I_{OUT}	V_{CC} = 4.5V; Output Open			20	mA
Output Saturation Voltage	$V_{OUT(SAT)}$	$B > B_{OP}$; I_{OUT} = 20ma		150	400	mV
Output Leakage Current	I_{OFF}	$B < B_{RP}$; V_{OUT} = 24V		4.7	8.0	uA
Rise/Fall Time	t_r / t_f	R_L = 1.2k; C_L <33pF			1	us