

OPERATING CHARACTERISTICS

|             |     |
|-------------|-----|
| GAUSS       |     |
| OPERATE MAX | 495 |
| RELEASE MIN | 200 |
| DIFF MIN    | 35  |

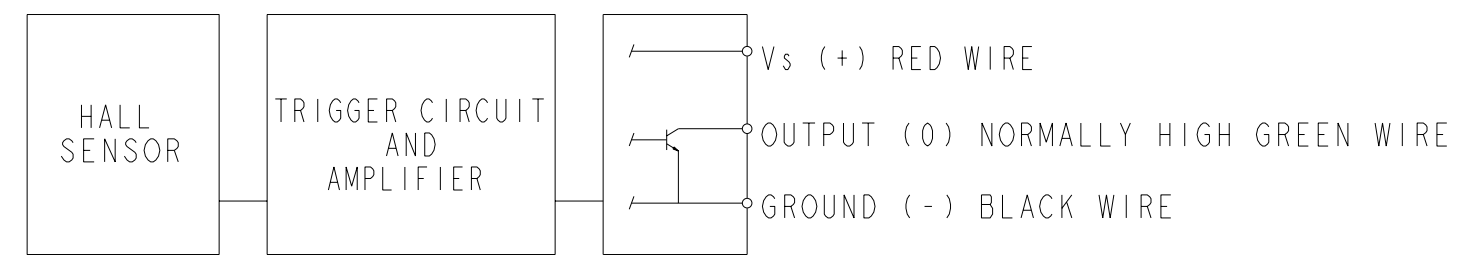
ABSOLUTE MAXIMUM RATINGS

|                                      |   |
|--------------------------------------|---|
| SUPPLY VOLTAGE (Vs)                  | -1.0 VDC TO +25.0 VDC   |
| VOLTAGE EXTERNALLY APPLIED TO OUTPUT | +25 VOLTS DC MAX WITH SWITCH IN "OFF" CONDITION ONLY<br>-0.5 VOLTS MAX WITH SWITCH IN "OFF" OR "ON" CONDITION |
| OUTPUT CURRENT                       | 40 mA (SINK PER OUTPUT)   |
| TEMPERATURE OPERATE AND STORAGE      | -40°C TO 100°C  |
| MAGNETIC FLUX                        | NO LIMIT, THE CIRCUIT CANNOT BE DAMAGED BY MAGNETIC OVERDRIVE   |

ELECTRICAL CHARACTERISTICS

|                                       | MIN | TYP | MAX      | REMARKS                    |
|---------------------------------------|-----|-----|----------|----------------------------|
| SUPPLY CURRENT                        |     |     | 10.0 mA  | ON CONDITION               |
| OUTPUT VOLTAGE (OPERATED)             |     |     | 0.4 V    | SINKING 20 mA PER OUTPUT   |
| OUTPUT LEAKAGE CURRENT (RELEASED)     |     |     | 20µ A    | LEAKAGE INTO SWITCH OUTPUT |
| OUTPUT SWITCHING TIME (SINKING 20 mA) |     |     |          |                            |
| RISE TIME                             |     |     | 1.5µ SEC | 10% TO 90%                 |
| FALL TIME                             |     |     | 0.5µ SEC | 90% TO 10%                 |

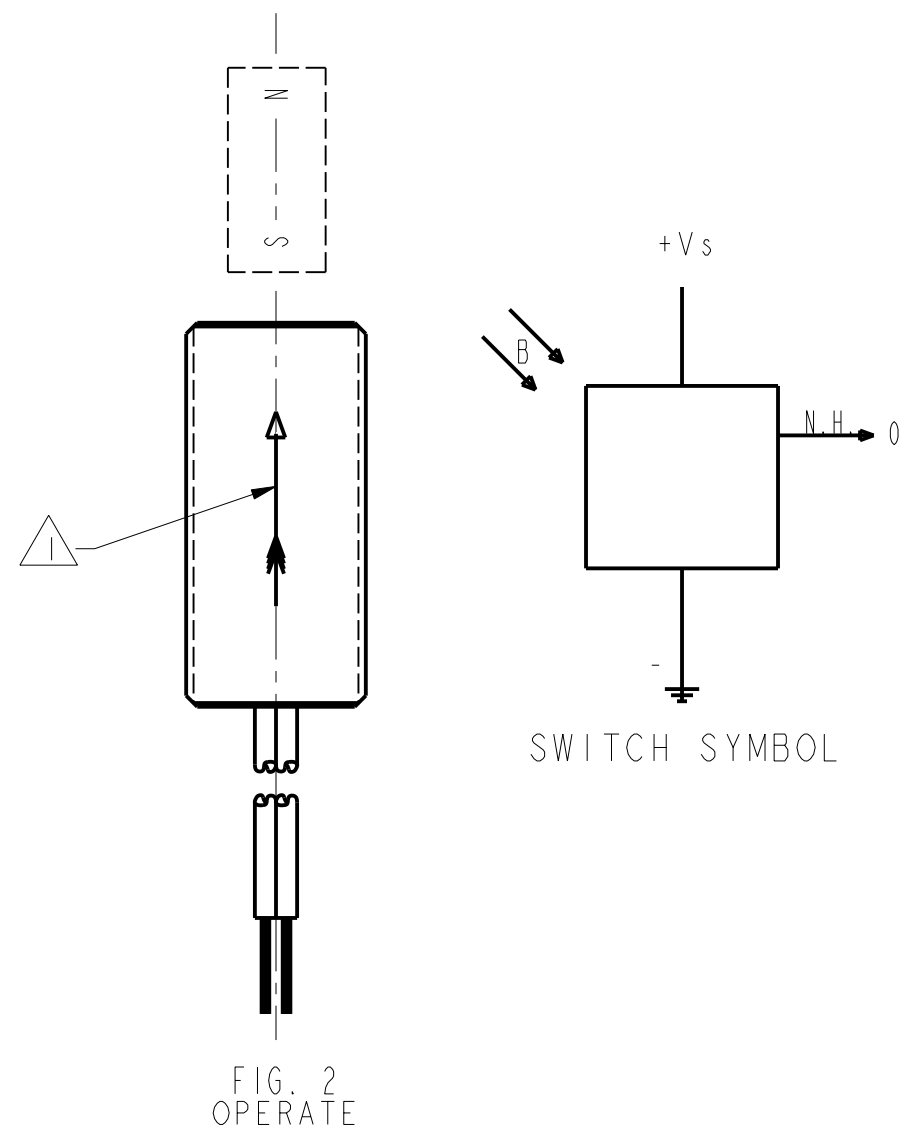
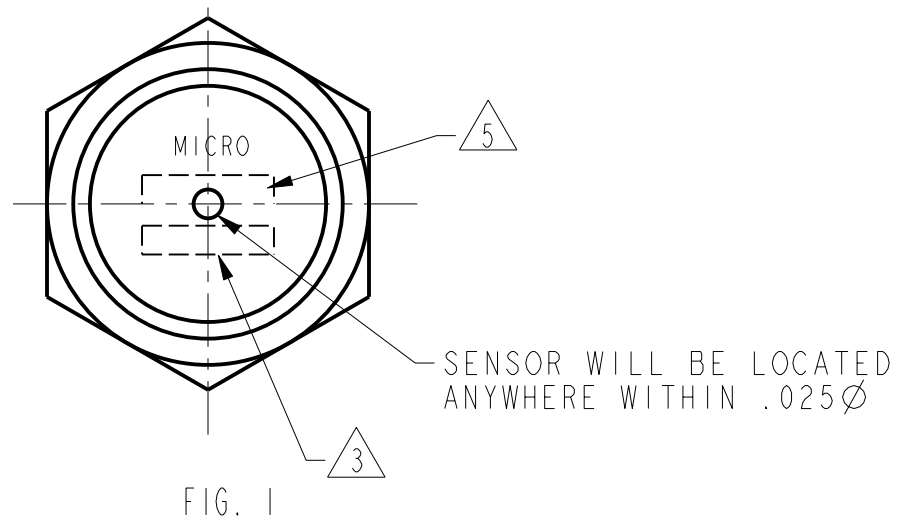
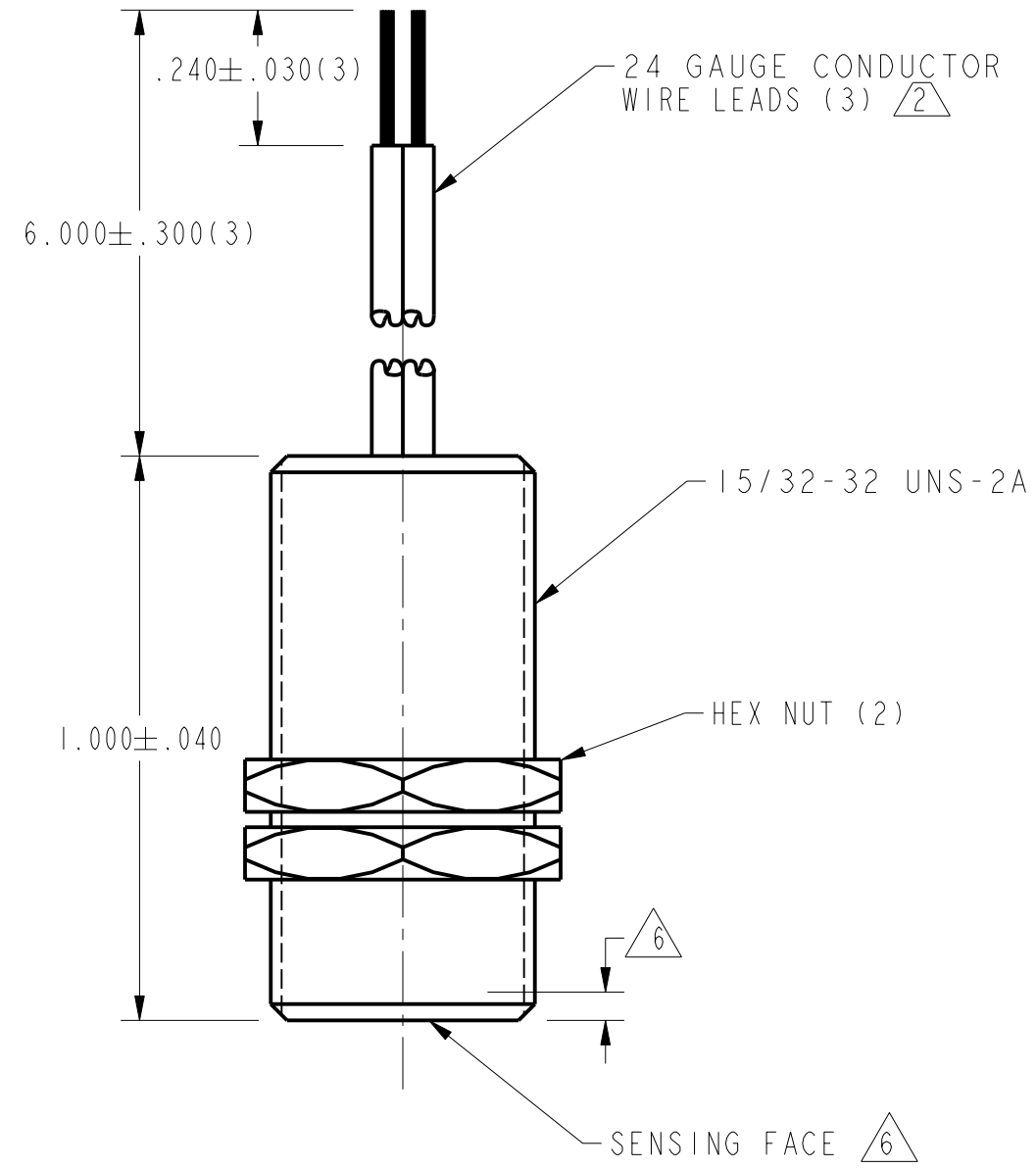
NOTE: THIS DEVICE IS NOT PROTECTED AGAINST HIGH ELECTRICAL NOISE. IF ERRATIC OPERATION OCCURS AFTER INSTALLATION, INSTALL A CAPACITOR ACROSS THE INPUT TERMINALS (0.1 MFD). IF ERRATIC OPERATION CONTINUES, YOU MAY HAVE TO USE THE INDUSTRIAL DEVICES THAT MICRO SWITCH MANUFACTURES. PLEASE CONTACT YOUR LOCAL FIELD REPRESENTATIVE FOR INFORMATION.



BLOCK DIAGRAM SHOWING CURRENT SINKING OUTPUTS

NOTES

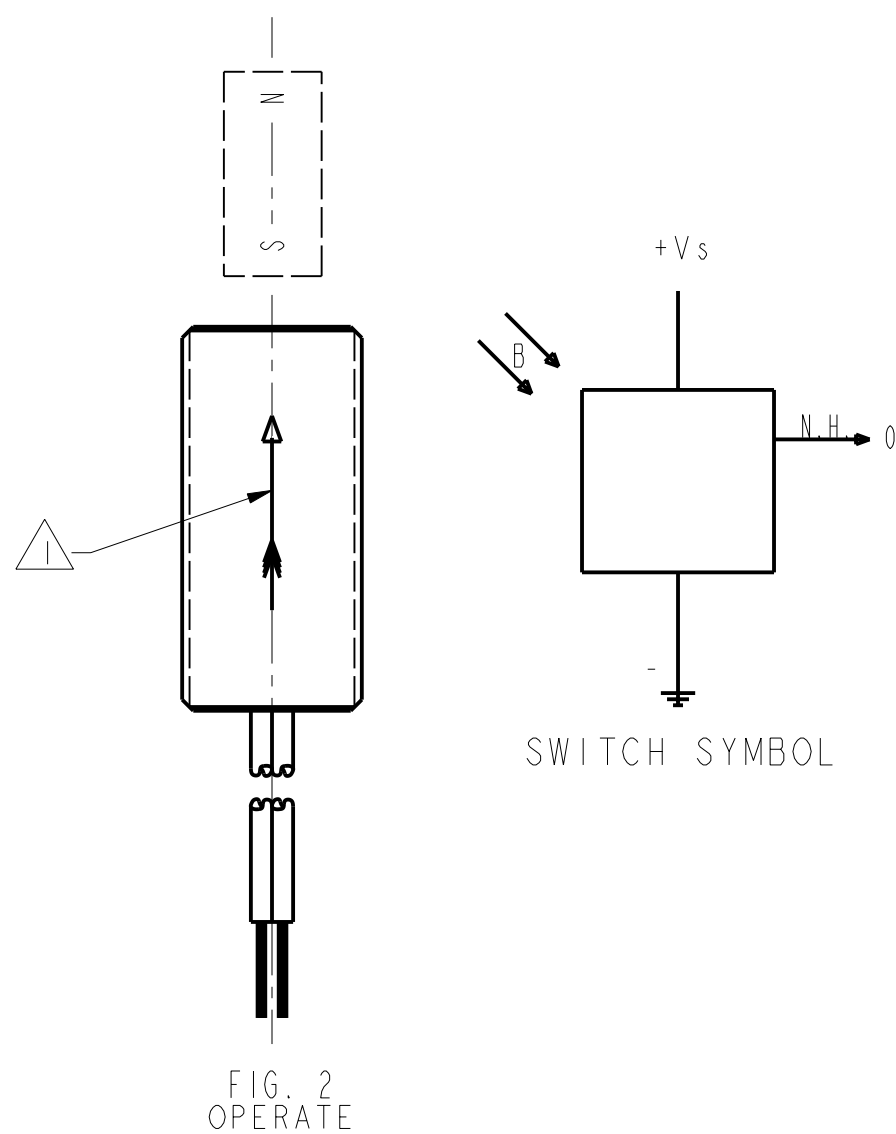
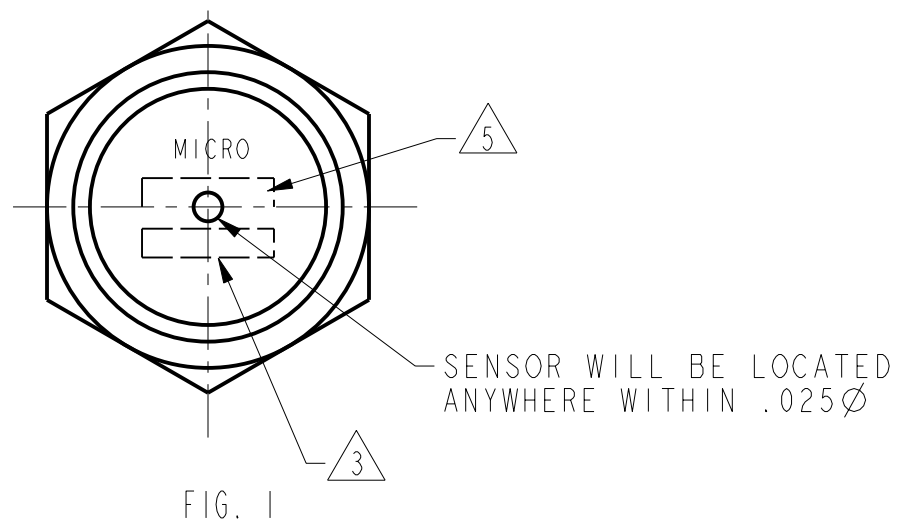
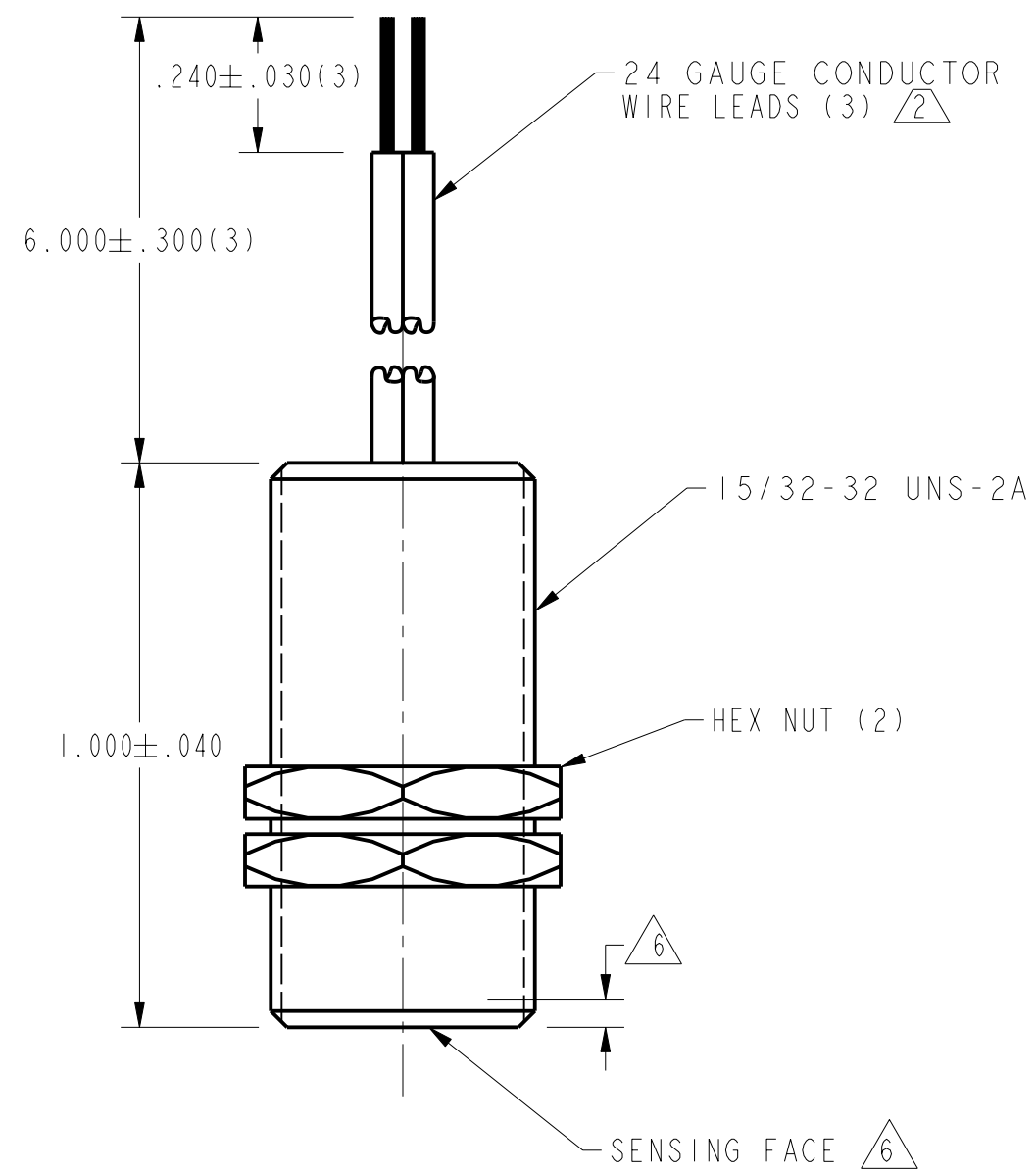
- ① FLUX ENTERING THE SOUTH POLE OF THE MAGNET WILL OPERATE THE SENSOR WHEN MAGNET IS POSITIONED AS SHOWN IN FIGURE 2. THIS ASSUMES THE CONVENTION THAT THE DIRECTION OF THE EXTERNAL FLUX OF A MAGNET IS FROM THE NORTH TO THE SOUTH POLE OF THE MAGNET
- ② LEADWIRES (INDIVIDUAL WIRES) ARE 24 GAGE STRANDED WITH IRRADIATED POLYETHYLENE INSULATION
- ③ DATE CODE LOCATED IN THIS AREA
- ④ FROM -40°C TO 100°C AND 4.5 TO 24 VOLTS
- ⑤ CATALOG LISTING LOCATED IN THIS AREA
- ⑥ SENSITIVE AREA IS LOCATED .050 BEHIND THE SENSING FACE
- ⑦ AT 24±2°C
- ⑧ Vs IS THE UNREGULATED SUPPLY VOLTAGE



P.T.C./CAD [20] DRAWN [ ] CHECK [ ] JAF [ ] 27 JUL 99  
 TSM [ ] CHECK [ ] JAF [ ] 27 JUL 99  
 REVISIONS  
 A [ ] CO95082A TSM 27 JUL 99  
 ISSUE [ ] DRAWING NUMBER [ ] OF [ ] OF [ ]  
 103SR13A-1 RELEASE NO. PR-4252 REPLACES [ ]

|   |  |                                      |
|---|--|--------------------------------------|
| MICRO SWITCH<br>a Honeywell Division  | <b>MAGNETICALLY OPERATED CYLINDRICAL HALL SWITCH</b> | CATALOG LISTING<br><b>103SR13A-1</b> |
| THIS DRAWING COVERS A PROPRIETARY ITEM AND IS THE PROPERTY OF MICRO SWITCH, A DIVISION OF HONEYWELL. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE APPROVAL OF MICRO SWITCH. |  |                                      |
| ANSI Y14.5M-1982 APPLIES  |  |                                      |

|   |        |       |  |
|---|--------|-------|--|
| THIRD ANGLE PROJECTION                    |        |       |  |
| SCALE 3" = 1"                             |        |       |  |
| DO NOT SCALE PRINT                        |        |       |  |
| UNLESS OTHERWISE SPECIFIED TOLERANCES ARE |        |       |  |
| ONE PLACE                                 | (.0)   | ±.030 |  |
| TWO PLACES                                | (.00)  | ±.015 |  |
| THREE PLACES                              | (.000) | ±.005 |  |
| ANGLES                                    |        | ±     |  |
| WEIGHT                                    |        |       |  |



OPERATING CHARACTERISTICS

|             |     |
|-------------|-----|
| GAUSS       |     |
| OPERATE MAX | 495 |
| RELEASE MIN | 200 |
| DIFF MIN    | 35  |

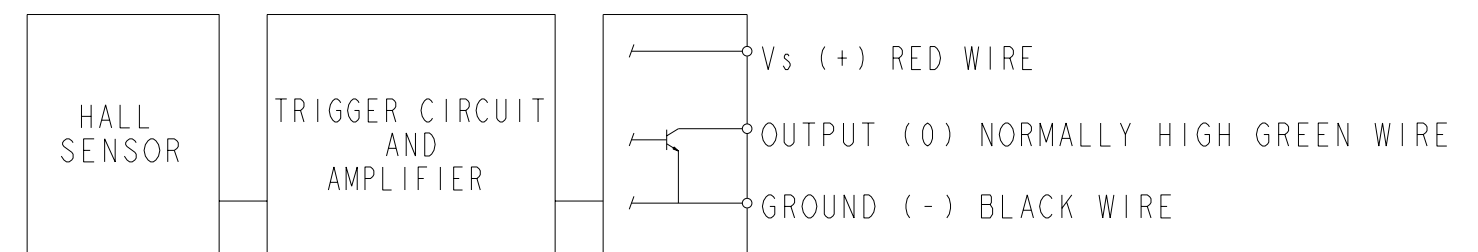
ABSOLUTE MAXIMUM RATINGS

|                                      |   |
|--------------------------------------|---|
| SUPPLY VOLTAGE (Vs)                  | -1.0 VDC TO +25.0 VDC   |
| VOLTAGE EXTERNALLY APPLIED TO OUTPUT | +25 VOLTS DC MAX WITH SWITCH IN "OFF" CONDITION ONLY<br>-0.5 VOLTS MAX WITH SWITCH IN "OFF" OR "ON" CONDITION |
| OUTPUT CURRENT                       | 40 mA (SINK PER OUTPUT)   |
| TEMPERATURE OPERATE AND STORAGE      | -40°C TO 100°C  |
| MAGNETIC FLUX                        | NO LIMIT, THE CIRCUIT CANNOT BE DAMAGED BY MAGNETIC OVERDRIVE   |

ELECTRICAL CHARACTERISTICS

|                                       | MIN | TYP | MAX      | REMARKS                    |
|---------------------------------------|-----|-----|----------|----------------------------|
| SUPPLY CURRENT                        |     |     | 10.0 mA  | ON CONDITION               |
| OUTPUT VOLTAGE (OPERATED)             |     |     | 0.4 V    | SINKING 20 mA PER OUTPUT   |
| OUTPUT LEAKAGE CURRENT (RELEASED)     |     |     | 20μ A    | LEAKAGE INTO SWITCH OUTPUT |
| OUTPUT SWITCHING TIME (SINKING 20 mA) |     |     |          |                            |
| RISE TIME                             |     |     | 1.5μ SEC | 10% TO 90%                 |
| FALL TIME                             |     |     | 0.5μ SEC | 90% TO 10%                 |

NOTE: THIS DEVICE IS NOT PROTECTED AGAINST HIGH ELECTRICAL NOISE. IF ERRATIC OPERATION OCCURS AFTER INSTALLATION, INSTALL A CAPACITOR ACROSS THE INPUT TERMINALS (0.1 MFD). IF ERRATIC OPERATION CONTINUES, YOU MAY HAVE TO USE THE INDUSTRIAL DEVICES THAT MICRO SWITCH MANUFACTURES. PLEASE CONTACT YOUR LOCAL FIELD REPRESENTATIVE FOR INFORMATION.



BLOCK DIAGRAM SHOWING CURRENT SINKING OUTPUTS

NOTES

- 1 FLUX ENTERING THE SOUTH POLE OF THE MAGNET WILL OPERATE THE SENSOR WHEN MAGNET IS POSITIONED AS SHOWN IN FIGURE 2. THIS ASSUMES THE CONVENTION THAT THE DIRECTION OF THE EXTERNAL FLUX OF A MAGNET IS FROM THE NORTH TO THE SOUTH POLE OF THE MAGNET
- 2 LEADWIRES (INDIVIDUAL WIRES) ARE 24 GAGE STRANDED WITH IRRADIATED POLYETHYLENE INSULATION
- 3 DATE CODE LOCATED IN THIS AREA
- 4 FROM -40°C TO 100°C AND 4.5 TO 24 VOLTS
- 5 CATALOG LISTING LOCATED IN THIS AREA
- 6 SENSITIVE AREA IS LOCATED .050 BEHIND THE SENSING FACE
- 7 AT 24° ± 2° C
- 8 Vs IS THE UNREGULATED SUPPLY VOLTAGE



|   |               |
|---|---------------|
| THIRD ANGLE PROJECTION                    |               |
| SCALE 3" = 1"                             |               |
| DO NOT SCALE PRINT                        |               |
| UNLESS OTHERWISE SPECIFIED TOLERANCES ARE |               |
| ONE PLACE                                 | (.0) ± .030   |
| TWO PLACES                                | (.00) ± .015  |
| THREE PLACES                              | (.000) ± .005 |
| ANGLES                                    | ±             |
| WEIGHT                                    |               |

THIS DRAWING COVERS A PROPRIETARY ITEM AND IS THE PROPERTY OF MICRO SWITCH, A DIVISION OF HONEYWELL. THIS DRAWING IS NOT TO BE COPIED OR USED WITHOUT THE APPROVAL OF MICRO SWITCH.

**MICRO SWITCH**  
a Honeywell Division

**MAGNETICALLY OPERATED CYLINDRICAL HALL SWITCH**

CATALOG LISTING  
**103SR13A-1**

103SR13A-1  
 DRAWING NUMBER  
 ISSUE 12  
 PAGES 1 OF 1  
 RELEASE NO. PR-4252  
 REPLACES  
 REVISIONS  
 A C095082A TSM 27 JUL 99  
 B 201747 JAF DEC 00  
 CHECKED JAF 27 JUL 99  
 DRAWN JAF 27 JUL 99  
 P.T.C./CAD 20



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.