

M

SR4P3-B9

OPERATING CHARACTERISTICS <sup>1</sup> <sup>5</sup>

|                            |          |
|----------------------------|----------|
| OPERATE MAX                | 25 GAUSS |
| RELEASE MIN                | 5 GAUSS  |
| DIFF MIN                   | 2 GAUSS  |
| (TEMP RANGE -40°C TO 85°C) |          |

ABSOLUTE MAXIMUM RATINGS

|   |   |
|---|---|
| SUPPLY VOLTAGE (V <sub>S</sub> ) <sup>7</sup> | 3.8 VDC TO 30 VDC   |
| VOLTAGE EXTERNALLY APPLIED TO OUTPUT          | +30 VOLTS DC MAX WITH SWITCH IN "OFF" CONDITION ONLY<br>-0.5 VOLTS MAX WITH SWITCH IN "OFF" OR "ON" CONDITION |
| OUTPUT CURRENT                                | 20 mA   |
| TEMPERATURE OPERATE AND STORAGE               | -40°C TO 85°C   |
| MAGNETIC FLUX                                 | NO LIMIT, THE CIRCUIT CANNOT BE DAMAGED BY MAGNETIC OVERDRIVE   |

ELECTRICAL CHARACTERISTICS

|  | MIN | TYP       | MAX       | REMARKS                                    |
|--|-----|-----------|-----------|--|
| SUPPLY CURRENT <sup>4</sup>                    |     | 6.0 mA    | 11.0 mA   | V <sub>S</sub> = 3.8-30 VOLTS <sup>7</sup> |
| OUTPUT VOLTAGE <sup>5</sup> (OPERATED)         |     | 0.25 V    | 0.4 V     | SINKING 20 mA MAX                          |
| OUTPUT LEAKAGE CURRENT <sup>5</sup> (RELEASED) |     |           | 10 μA     | LEAKAGE INTO SWITCH OUTPUT                 |
| OUTPUT SWITCHING TIME                          |     |           |           | 1600Ω, 20pF LOAD                           |
| RISE TIME <sup>5</sup>                         |     | 0.2 μ SEC | 1.5 μ SEC | 10% TO 90%                                 |
| FALL TIME                                      |     | 0.1 μ SEC | 1.5 μ SEC | 90% TO 10%                                 |

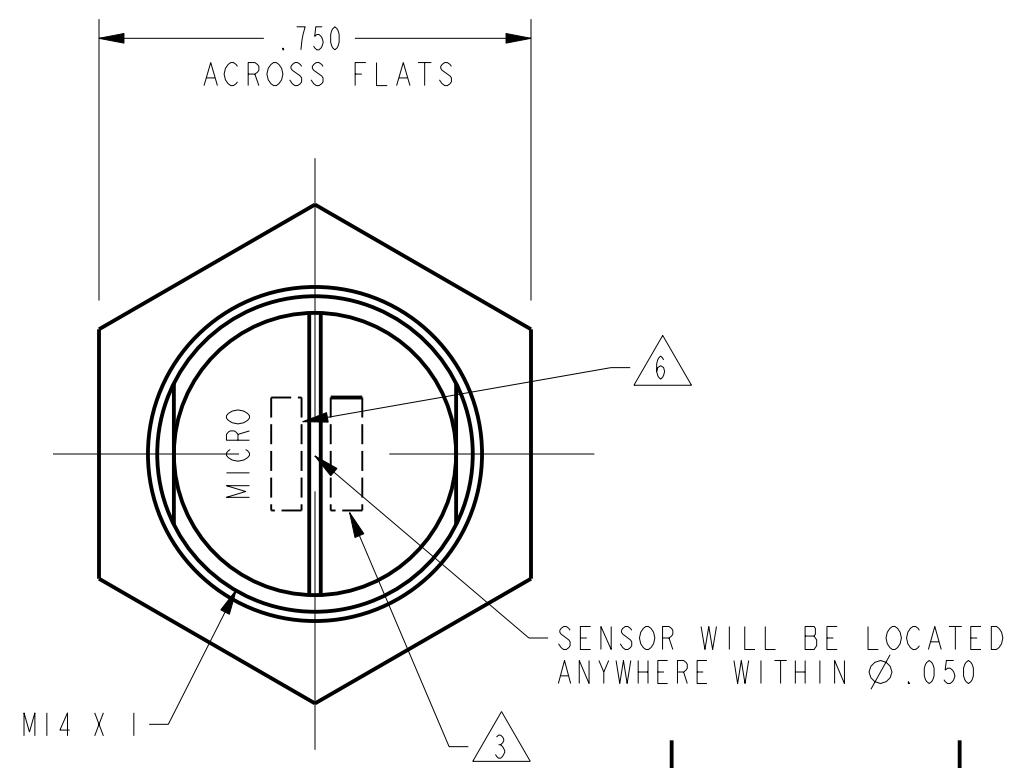
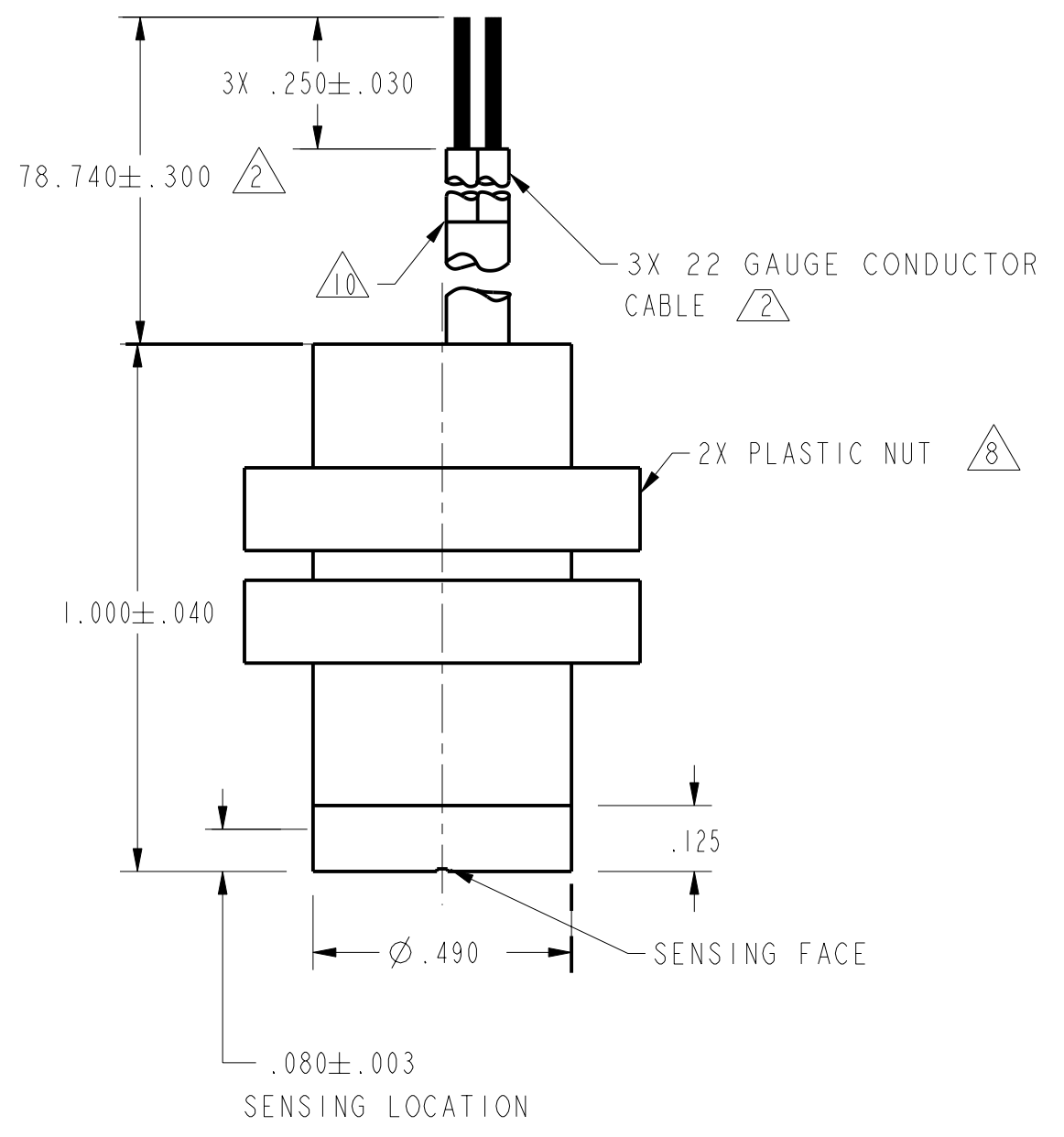


FIG. 1

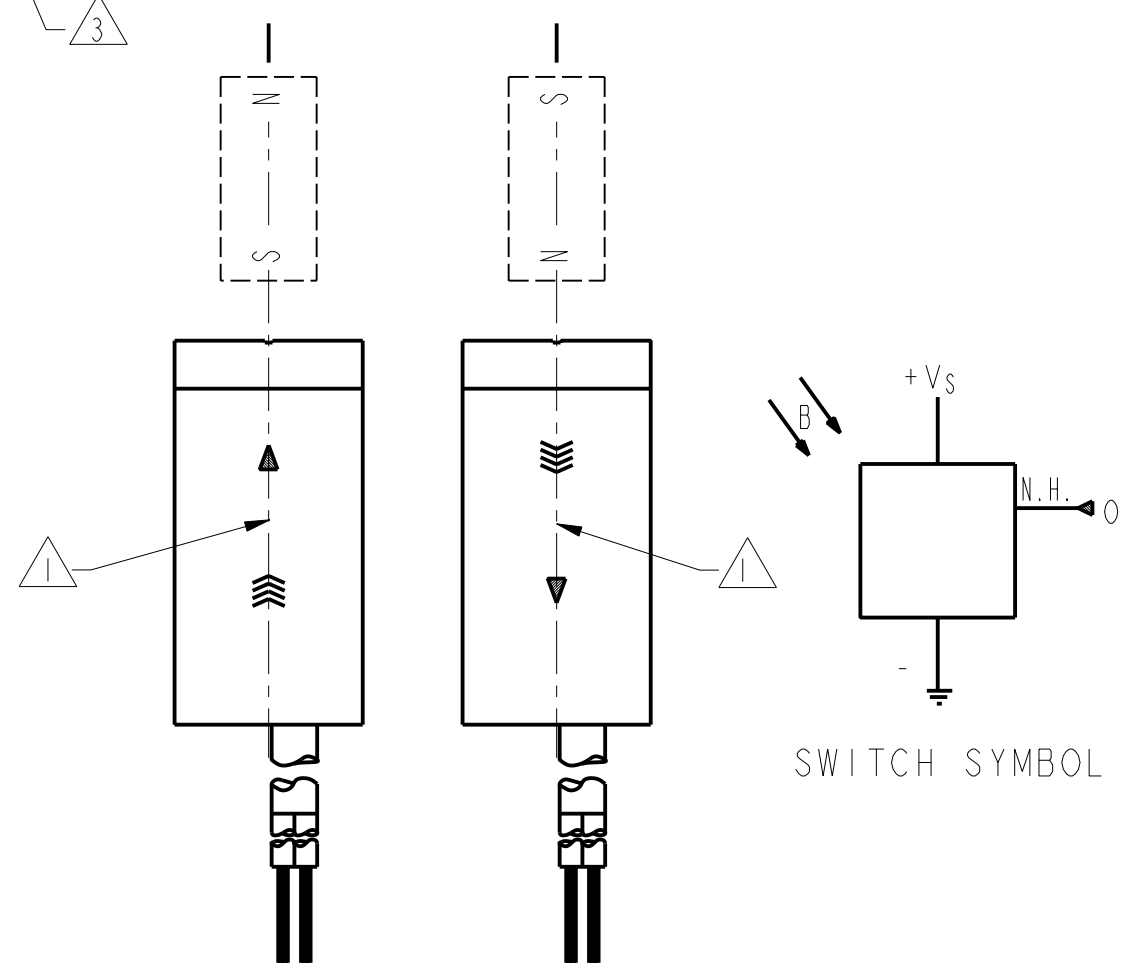
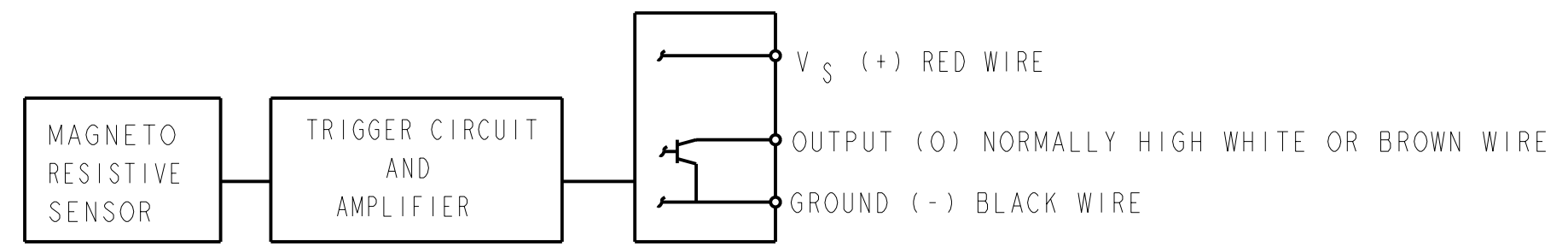


FIG. 2  
OPERATE



BLOCK DIAGRAM SHOWING CURRENT SINKING OUTPUTS

NOTES

- <sup>1</sup> FLUX ENTERING THE SOUTH POLE OR THE NORTH 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
- <sup>2</sup> 22 GAUGE PVC INSULATED CONDUCTORS WITH MOLDED PVC JACKET
- <sup>3</sup> DATE CODE LOCATED IN THIS AREA
- <sup>4</sup> SUPPLY CURRENT RATINGS MEASURED AT TEMPERATURES INDICATED "TYP" 24°C ± 2°C "MAX" -40°C TO 85°C
- <sup>5</sup> AT SUPPLY VOLTAGE OF 3.8 TO 30 VOLTS AND FULL TEMPERATURE RANGE
- <sup>6</sup> CATALOG LISTING LOCATED IN THIS AREA
- <sup>7</sup> V<sub>S</sub> IS THE UNREGULATED SUPPLY VOLTAGE
- <sup>8</sup> TORQUE ON PLASTIC NUTS MUST NOT EXCEED 12 INCH POUNDS
- <sup>9</sup> - THE MAGNETIC CHARACTERISTICS OF THE SWITCH MAY BE AFFECTED BY STRAY MAGNETIC FIELDS
- <sup>10</sup> JACKET IS CUT BACK 1.37 FROM FREE END OF LEADS

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**MICRO SWITCH**  
a Honeywell Division  
FED. MFG. CODE 91929

**MAGNETICALLY OPERATED CYLINDRICAL HALL SWITCH**

CATALOG LISTING  
**SR4P3-B9**

|   |        |        |
|---|--------|--------|
| 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                                    |        |        |

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