

File E61760(N)

## 59065 & 59070 Threaded Barrel Features and Benefits



### Features

- 2 part magnetically operated proximity sensor
- Threaded barrel with retaining nuts
- Available as M8 (57070/59070) or 5/16 (57065/59065) size options
- Customer defined sensitivity
- Choice of cable length and connector

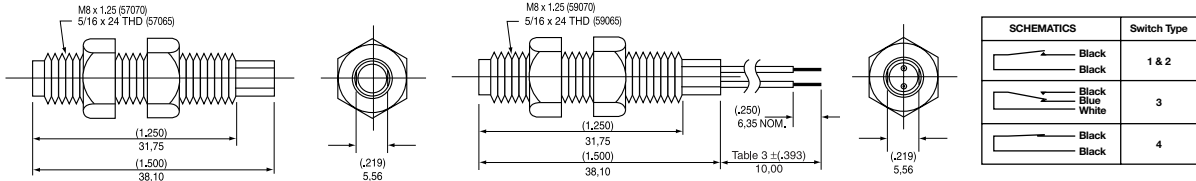
### Benefits

- Simple installation and adjustment using supplied retaining nuts
- No standby power requirement
- Operates through non-ferrous materials such as wood, plastic or aluminium
- Simple installation and adjustment

### Applications

- Position and limit sensing
- Security system switch
- Linear actuators
- Industrial process control

## DIMENSIONS (in) mm



## CUSTOMER OPTIONS - Switching Specifications

| TABLE 1<br>Contact Type |                  |             | Normally Open    | Normally Open High Voltage | Change Over     | Normally Closed |
|-------------------------|------------------|-------------|------------------|----------------------------|-----------------|-----------------|
| Switch Type             |                  |             | 1                | 2                          | 3               | 4               |
|                         | Power            | Watt - max. | 10               | 10                         | 5               | 5               |
| Voltage                 | Switching        | Vdc - max.  | 200              | 300                        | 175             | 175             |
|                         | Breakdown        | Vdc - min.  | 250              | 450                        | 200             | 200             |
| Current                 | Switching        | A - max.    | 0.5              | 0.5                        | 0.25            | 0.25            |
|                         | Carry            | A - max.    | 1.2              | 1.5                        | 1.5             | 1.5             |
| Resistance              | Contact, Initial | Ω - max.    | 0.2              | 0.2                        | 0.2             | 0.2             |
|                         | Insulation       | Ω - min.    | 10 <sup>10</sup> | 10 <sup>10</sup>           | 10 <sup>9</sup> | 10 <sup>9</sup> |
| Capacitance             | Contact          | pF - typ.   | 0.3              | 0.2                        | 0.3             | 0.3             |
| Temperature             | Operating        | °C          | -40 to +105      | -20 to +105                | -40 to +105     | -40 to +105     |
|                         | Storage          | °C          | -65 to +105      | -65 to +105                | -65 to +105     | -65 to +105     |
| Time                    | Operate          | ms - max.   | 1.0              | 1.0                        | 3.0             | 3.0             |
|                         | Release          | ms - max.   | 1.0              | 1.0                        | 3.0             | 3.0             |
| Shock                   | 11ms 1/2 sine    | G - max.    | 100              | 100                        | 50              | 50              |
| Vibration               | 50-2000 Hz       | G - max.    | 30               | 30                         | 30              | 30              |

## CUSTOMER OPTIONS - Sensitivity, Cable Length and Termination Specification

| TABLE 2   |                          |                             |                  |                             |                  |                             |                  | TABLE 3   |   | TABLE 4  |   |  |   |  |   |  |             |                  |                             |                  |                             |                  |                             |                  |                             |                 |       |       |       |       |       |       |       |       |                |  |     |  |     |  |     |  |     |               |       |       |       |       |       |       |  |  |                   |  |     |  |     |  |     |  |  |   |  |               |                      |    |            |    |             |    |             |    |             |    |              |  |  |  |        |                          |  |   |                |  |   |                      |  |   |                     |  |
|---|--------------------------|-----------------------------|------------------|-----------------------------|------------------|-----------------------------|------------------|---|---|--|---|--|---|--|---|--|-------------|------------------|-----------------------------|------------------|-----------------------------|------------------|-----------------------------|------------------|-----------------------------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|----------------|--|-----|--|-----|--|-----|--|-----|---------------|-------|-------|-------|-------|-------|-------|--|--|-------------------|--|-----|--|-----|--|-----|--|--|---|--|---------------|----------------------|----|------------|----|-------------|----|-------------|----|-------------|----|--------------|--|--|--|--------|--------------------------|--|---|----------------|--|---|----------------------|--|---|---------------------|--|
| <b>Sensitivity Options:-</b><br>Activate Distances are approximate using Hamlin 57065/57070 actuator as illustrated. Switch AT before modification.   |                          |                             |                  |                             |                  |                             |                  | <b>Cable Type:-</b><br>24 AWG 7/32 PVC 105°C<br>UL1430/UL1569 |   | <b>Termination Options:-</b>                               |   |  |   |  |   |  |             |                  |                             |                  |                             |                  |                             |                  |                             |                 |       |       |       |       |       |       |       |       |                |  |     |  |     |  |     |  |     |               |       |       |       |       |       |       |  |  |                   |  |     |  |     |  |     |  |  |   |  |               |                      |    |            |    |             |    |             |    |             |    |              |  |  |  |        |                          |  |   |                |  |   |                      |  |   |                     |  |
|   |                          |                             |                  |                             |                  |                             |                  | Standard Lengths  |   | SELECT OPTION    DESCRIPTION (2 WIRE VERSIONS ILLUSTRATED) |   |  |   |  |   |  |             |                  |                             |                  |                             |                  |                             |                  |                             |                 |       |       |       |       |       |       |       |       |                |  |     |  |     |  |     |  |     |               |       |       |       |       |       |       |  |  |                   |  |     |  |     |  |     |  |  |   |  |               |                      |    |            |    |             |    |             |    |             |    |              |  |  |  |        |                          |  |   |                |  |   |                      |  |   |                     |  |
| <table border="1"> <thead> <tr> <th>Select Option</th> <th colspan="2">S</th> <th colspan="2">T</th> <th colspan="2">U</th> <th colspan="2">V</th> </tr> <tr> <th>Switch Type</th> <th>Pull In AT Range</th> <th>Activate Distance d (in) mm</th> <th>Pull In AT Range</th> <th>Activate Distance d (in) mm</th> <th>Pull In AT Range</th> <th>Activate Distance d (in) mm</th> <th>Pull In AT Range</th> <th>Activate Distance d (in) mm</th> </tr> </thead> <tbody> <tr> <td>1 Normally Open</td> <td>12-18</td> <td>(354)</td> <td>17-23</td> <td>(276)</td> <td>22-28</td> <td>(236)</td> <td>27-33</td> <td>(177)</td> </tr> <tr> <td>2 High Voltage</td> <td></td> <td>9,0</td> <td></td> <td>7,0</td> <td></td> <td>6,0</td> <td></td> <td>4,5</td> </tr> <tr> <td>3 Change Over</td> <td>15-20</td> <td>(295)</td> <td>20-25</td> <td>(236)</td> <td>25-30</td> <td>(197)</td> <td></td> <td></td> </tr> <tr> <td>4 Normally Closed</td> <td></td> <td>7,5</td> <td></td> <td>6,0</td> <td></td> <td>5,0</td> <td></td> <td></td> </tr> </tbody> </table> |                          |                             |                  |                             |                  |                             |                  | Select Option   | S |  | T |  | U |  | V |  | Switch Type | Pull In AT Range | Activate Distance d (in) mm | Pull In AT Range | Activate Distance d (in) mm | Pull In AT Range | Activate Distance d (in) mm | Pull In AT Range | Activate Distance d (in) mm | 1 Normally Open | 12-18 | (354) | 17-23 | (276) | 22-28 | (236) | 27-33 | (177) | 2 High Voltage |  | 9,0 |  | 7,0 |  | 6,0 |  | 4,5 | 3 Change Over | 15-20 | (295) | 20-25 | (236) | 25-30 | (197) |  |  | 4 Normally Closed |  | 7,5 |  | 6,0 |  | 5,0 |  |  | <table border="1"> <thead> <tr> <th>SELECT OPTION</th> <th>CABLE LENGTH (in) mm</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>(3,94) 100</td> </tr> <tr> <td>02</td> <td>(11,81) 300</td> </tr> <tr> <td>03</td> <td>(19,69) 500</td> </tr> <tr> <td>04</td> <td>(29,53) 750</td> </tr> <tr> <td>05</td> <td>(39,37) 1000</td> </tr> </tbody> </table> |  | 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 | <table border="1"> <tbody> <tr> <td>A or F</td> <td>Tinned or untinned leads</td> <td></td> </tr> <tr> <td>C</td> <td>6.35mm fastons</td> <td></td> </tr> <tr> <td>D</td> <td>AMP MTE 2.54mm pitch</td> <td></td> </tr> <tr> <td>E</td> <td>JST XHP 2.5mm pitch</td> <td></td> </tr> </tbody> </table> |  |  | A or F | Tinned or untinned leads |  | C | 6.35mm fastons |  | D | AMP MTE 2.54mm pitch |  | E | JST XHP 2.5mm pitch |  |
| Select Option   | S                        |                             | T                |                             | U                |                             | V                |   |   |  |   |  |   |  |   |  |             |                  |                             |                  |                             |                  |                             |                  |                             |                 |       |       |       |       |       |       |       |       |                |  |     |  |     |  |     |  |     |               |       |       |       |       |       |       |  |  |                   |  |     |  |     |  |     |  |  |   |  |               |                      |    |            |    |             |    |             |    |             |    |              |  |  |  |        |                          |  |   |                |  |   |                      |  |   |                     |  |
| Switch Type   | Pull In AT Range         | Activate Distance d (in) mm | Pull In AT Range | Activate Distance d (in) mm | Pull In AT Range | Activate Distance d (in) mm | Pull In AT Range | Activate Distance d (in) mm                                   |   |  |   |  |   |  |   |  |             |                  |                             |                  |                             |                  |                             |                  |                             |                 |       |       |       |       |       |       |       |       |                |  |     |  |     |  |     |  |     |               |       |       |       |       |       |       |  |  |                   |  |     |  |     |  |     |  |  |   |  |               |                      |    |            |    |             |    |             |    |             |    |              |  |  |  |        |                          |  |   |                |  |   |                      |  |   |                     |  |
| 1 Normally Open   | 12-18                    | (354)                       | 17-23            | (276)                       | 22-28            | (236)                       | 27-33            | (177)   |   |  |   |  |   |  |   |  |             |                  |                             |                  |                             |                  |                             |                  |                             |                 |       |       |       |       |       |       |       |       |                |  |     |  |     |  |     |  |     |               |       |       |       |       |       |       |  |  |                   |  |     |  |     |  |     |  |  |   |  |               |                      |    |            |    |             |    |             |    |             |    |              |  |  |  |        |                          |  |   |                |  |   |                      |  |   |                     |  |
| 2 High Voltage  |                          | 9,0                         |                  | 7,0                         |                  | 6,0                         |                  | 4,5   |   |  |   |  |   |  |   |  |             |                  |                             |                  |                             |                  |                             |                  |                             |                 |       |       |       |       |       |       |       |       |                |  |     |  |     |  |     |  |     |               |       |       |       |       |       |       |  |  |                   |  |     |  |     |  |     |  |  |   |  |               |                      |    |            |    |             |    |             |    |             |    |              |  |  |  |        |                          |  |   |                |  |   |                      |  |   |                     |  |
| 3 Change Over   | 15-20                    | (295)                       | 20-25            | (236)                       | 25-30            | (197)                       |                  |   |   |  |   |  |   |  |   |  |             |                  |                             |                  |                             |                  |                             |                  |                             |                 |       |       |       |       |       |       |       |       |                |  |     |  |     |  |     |  |     |               |       |       |       |       |       |       |  |  |                   |  |     |  |     |  |     |  |  |   |  |               |                      |    |            |    |             |    |             |    |             |    |              |  |  |  |        |                          |  |   |                |  |   |                      |  |   |                     |  |
| 4 Normally Closed   |                          | 7,5                         |                  | 6,0                         |                  | 5,0                         |                  |   |   |  |   |  |   |  |   |  |             |                  |                             |                  |                             |                  |                             |                  |                             |                 |       |       |       |       |       |       |       |       |                |  |     |  |     |  |     |  |     |               |       |       |       |       |       |       |  |  |                   |  |     |  |     |  |     |  |  |   |  |               |                      |    |            |    |             |    |             |    |             |    |              |  |  |  |        |                          |  |   |                |  |   |                      |  |   |                     |  |
| 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             |                             |                  |                             |                  |                             |                  |   |   |  |   |  |   |  |   |  |             |                  |                             |                  |                             |                  |                             |                  |                             |                 |       |       |       |       |       |       |       |       |                |  |     |  |     |  |     |  |     |               |       |       |       |       |       |       |  |  |                   |  |     |  |     |  |     |  |  |   |  |               |                      |    |            |    |             |    |             |    |             |    |              |  |  |  |        |                          |  |   |                |  |   |                      |  |   |                     |  |
| A or F  | Tinned or untinned leads |                             |                  |                             |                  |                             |                  |   |   |  |   |  |   |  |   |  |             |                  |                             |                  |                             |                  |                             |                  |                             |                 |       |       |       |       |       |       |       |       |                |  |     |  |     |  |     |  |     |               |       |       |       |       |       |       |  |  |                   |  |     |  |     |  |     |  |  |   |  |               |                      |    |            |    |             |    |             |    |             |    |              |  |  |  |        |                          |  |   |                |  |   |                      |  |   |                     |  |
| C   | 6.35mm fastons           |                             |                  |                             |                  |                             |                  |   |   |  |   |  |   |  |   |  |             |                  |                             |                  |                             |                  |                             |                  |                             |                 |       |       |       |       |       |       |       |       |                |  |     |  |     |  |     |  |     |               |       |       |       |       |       |       |  |  |                   |  |     |  |     |  |     |  |  |   |  |               |                      |    |            |    |             |    |             |    |             |    |              |  |  |  |        |                          |  |   |                |  |   |                      |  |   |                     |  |
| D   | AMP MTE 2.54mm pitch     |                             |                  |                             |                  |                             |                  |   |   |  |   |  |   |  |   |  |             |                  |                             |                  |                             |                  |                             |                  |                             |                 |       |       |       |       |       |       |       |       |                |  |     |  |     |  |     |  |     |               |       |       |       |       |       |       |  |  |                   |  |     |  |     |  |     |  |  |   |  |               |                      |    |            |    |             |    |             |    |             |    |              |  |  |  |        |                          |  |   |                |  |   |                      |  |   |                     |  |
| E   | JST XHP 2.5mm pitch      |                             |                  |                             |                  |                             |                  |   |   |  |   |  |   |  |   |  |             |                  |                             |                  |                             |                  |                             |                  |                             |                 |       |       |       |       |       |       |       |       |                |  |     |  |     |  |     |  |     |               |       |       |       |       |       |       |  |  |                   |  |     |  |     |  |     |  |  |   |  |               |                      |    |            |    |             |    |             |    |             |    |              |  |  |  |        |                          |  |   |                |  |   |                      |  |   |                     |  |

## ORDERING INFORMATION

N.B. 57065/57070 actuator sold separately

59065/59070 - X - X - XX - X

Series 59065/59070

Switch Type — Table 1

Sensitivity — Table 2

Cable Length — Table 3

Termination — Table 4

Hamlin USA Tel: +1 920 648 3000 • Fax: +1 920 648 3001 • Email: sales.us@hamlin.com  
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 Hamlin Germany Tel: +49 (0) 6181 953660 • Fax: +49 (0) 6181 953666 • Email: sales.de@hamlin.com  
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ISSUE No: 4 DATE: 1/5/3

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