

# A Series Proximity Switches

**Honeywell**

## Characteristics

|                                                                    | 3-wire DC  | 2-wire AC |
|--------------------------------------------------------------------|------------|-----------|
| Leakage Current (max)                                              | 10 $\mu$ A | 2mA       |
| Voltage Drop (max)                                                 | 2V DC      | 7V AC     |
| Inrush Current                                                     |            | 1.7A/20ms |
| Short Circuit, Overload Protection and Reverse Polarity Protection | Yes        |           |
| Supply Voltage                                                     | 10-36VDC   | 20-250VAC |
| Supply Current                                                     | 10mA (24V) |           |
| Repeatability                                                      | 5%         |           |
| Hysteresis                                                         | 10%        |           |
| LED                                                                | Yes        |           |
| False Pulse Protection                                             | Yes        |           |
| Temperature Range                                                  | -25~70°C   |           |
| Degree of Protection                                               | IP67       |           |



## Selection Guide

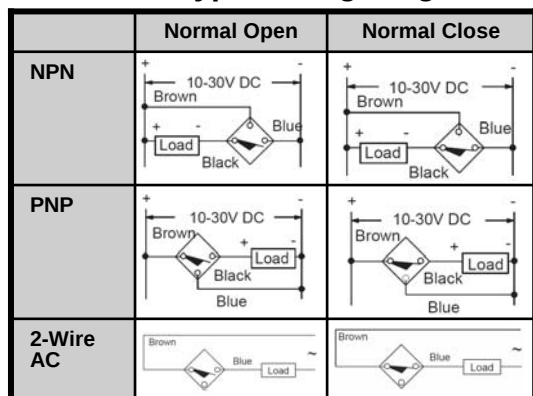
| AA   |    | 12        |       | A           |       | N           |            | 5             |  | C      |                     |
|------|----|-----------|-------|-------------|-------|-------------|------------|---------------|--|--------|---------------------|
| Type |    | Dimension |       | Output Type |       | Output Type |            | Sensing Range |  | Wiring |                     |
| AA   | DC | 08        | M8    | A           | NO    | N           | NPN output |               |  | 2      | 2m cable            |
| AB   | AC | 12        | M12   | B           | NC    | P           | PNP output |               |  | 5      | 5m cable            |
|      |    | 18        | M18   | V           | NO/NC |             |            |               |  | C      | M12 quick connector |
|      |    | 30        | M30   |             |       |             |            |               |  |        |                     |
|      |    | 17        | 17x17 |             |       |             |            |               |  |        |                     |
|      |    | 25        | 25x25 |             |       |             |            |               |  |        |                     |
|      |    | 40        | 40x40 |             |       |             |            |               |  |        |                     |

|                     | M8       |              | M12      |              | M18      |              | M30      |              | 17X17    |              | 25X25    |              | 40X40    |              |
|---------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
| 3-Wire DC           | Shielded | Non-Shielded | Shielded | Non-Shielded | Shielded | Non-Shielded | Shielded | Non-Shielded | Shielded | Non-Shielded | Shielded | Non-Shielded | Shielded | Non-Shielded |
| Sensing Range       | 1.5mm    | 3mm          | 2mm      | 5mm          | 5mm      | 10mm         | 10mm     | 15mm         | 5mm      | 10mm         | 10mm     | 15mm         | 15mm     | 20mm         |
| Load Current        | 200mA    |              | 200mA    |              | 200mA    |              | 200mA    |              | 200mA    |              | 200mA    |              | 200mA    |              |
| Switching Frequency | 2500Hz   | 2000Hz       | 2000Hz   | 1500Hz       | 800Hz    | 500Hz        | 500Hz    | 300Hz        | 800Hz    | 500Hz        | 500Hz    | 300Hz        | 300Hz    | 150Hz        |
| 2-Wire AC           |          |              | Shielded | Non-Shielded | Shielded | Non-Shielded | Shielded | Non-Shielded |          |              | Shielded | Non-Shielded | Shielded | Non-Shielded |
| Sensing Range       |          |              | 2mm      | 5mm          | 5mm      | 10mm         | 10mm     | 15mm         |          |              | 10mm     | 15mm         | 15mm     | 20mm         |
| Load Current        | 5-100mA  |              | 5-200mA  |              | 5-200mA  |              | 5-200mA  |              |          |              | 5-200mA  |              | 5-200mA  |              |
| Switching Frequency |          |              | 25Hz     |              | 25Hz     |              | 25Hz     |              |          |              | 25Hz     |              | 25Hz     |              |

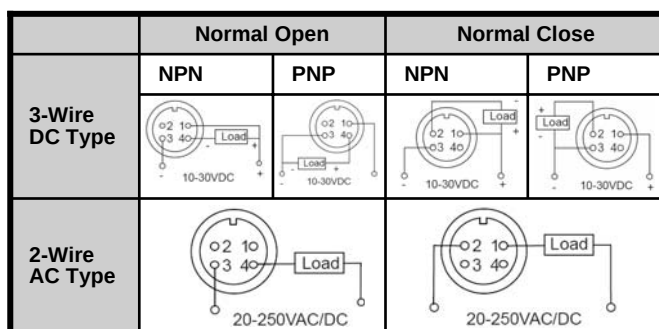
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**Prewired Type Wiring Diagram**



**Quick Connector Type Wiring Diagram**



## Dimensions

|  | Thread  | Type       | A<br>(mm) | B<br>(max, mm) | C<br>(min, mm) | D<br>(max, mm) |
|--|---------|------------|-----------|----------------|----------------|----------------|
|  | M8 X 1  | Shielded   | 8         | 45             | 35             |                |
|  |         | Unshielded |           | 50             | 35             | 4.5            |
|  | M12 X 1 | Shielded   | 12        | 55             | 40             |                |
|  |         | Unshielded |           | 60             | 40             | 5.0            |
|  | M18 X 1 | Shielded   | 18        | 60             | 45             |                |
|  |         | Unshielded |           | 68             | 45             | 8.5            |
|  | M30 X 1 | Shielded   | 30        | 60             | 45             |                |
|  |         | Unshielded |           | 73             | 45             | 13             |
|  | M8 X 1  | Shielded   | 8         | 66             | 40             |                |
|  |         | Unshielded |           | 70             | 40             | 4.5            |
|  | M12 X 1 | Shielded   | 12        | 66             | 35             |                |
|  |         | Unshielded |           | 70             | 35             | 5.0            |
|  | M18 X 1 | Shielded   | 18        | 62             | 40             |                |
|  |         | Unshielded |           | 70             | 40             | 8.5            |
|  | M30 X 1 | Shielded   | 30        | 68             | 37             |                |
|  |         | Unshielded |           | 81             | 37             | 13             |
|  |         |            |           |                |                |                |