KSM Series Factor 1 Inductive Proximity Sensors



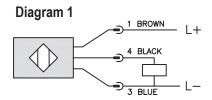
M12 (12mm)

- Correction Factor (K-Factor) = 1
- Low cost/high performance
- · Inductive sensor
- Metal thread M12 x 1 Connector
- Increased sensing range
- Gold-plated contacts
- Electromagnetic field immune
- Flush and Non-flush mounting
- Lifetime warranty



| KSM Series M12 Inductive Proximity Selection Chart | | | | | | | | | | |
|--|---------|---------------|-----------|--------------|-------|-------------|-----------------------------------|-----------|------------|--|
| Part Number | Price | Sensing Range | Mounting | Output State | Logic | Voltage | Connection | Wiring | Dimensions | |
| KSM6-AP-3H | \$28.50 | 4mm [0.16in] | Flush | N.O. | PNP | 10 - 30 VDC | 4-pin M12 quick- disconnect | Diagram 1 | Figure 1 | |
| KSM6-AP-4H | \$28.50 | 10mm [0.39in] | Non-flush | | | | | | | |
| KSM-AP-3H | \$28.50 | 4mm [0.16in] | Flush | | | | | | Figure 2 | |
| KSM-AP-4H | \$28.50 | 10mm [0.39in] | Non-flush | | | | | | | |

Wiring Diagrams



Connector

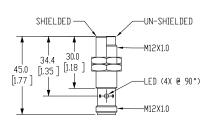
4-pin M12 connector



Dimensions

mm [inches]

Figure 1



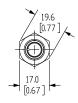
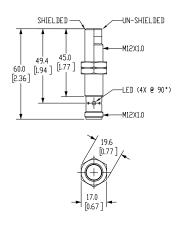


Figure 2



KSM Series Factor 1 Inductive Proximity Sensors

| KSM Series | s M12 Inductive | Proximity Specifi | cations | | | | |
|---|--|-------------------|---------------|----------------|--|--|--|
| Models | KSM6-AP-3H | KSM6-AP-4H | KSM-AP-3H | KSM-AP-4H | | | |
| Mounting Type | Flush | Non-flush | Flush | Non-flush | | | |
| Nominal Sensing Distance | 4mm [0.16 in] | 10mm [0.39 in] | 4mm [0.16 in] | 10mm [0.39 in] | | | |
| Operating Distance | 0 - 3.24 mm | 0 - 8.10 mm | 0 - 3.24 mm | 0 - 8.10 mm | | | |
| Material Correction Factors | Correction Factor (K-Factor) = 1 | | | | | | |
| Output Type | N.O. | | | | | | |
| Operating Voltage | 10 to 30 VDC | | | | | | |
| No-load Supply Current | < 20 mA | | | | | | |
| Operating (Load) Current | 100 mA | | | | | | |
| Off-state Leakage Current | NA | | | | | | |
| Voltage Drop | < 2.5 V | | | | | | |
| Switching Frequency | 2000Hz | | | | | | |
| Differential Travel (% of Nominal Distance) | 3 - 15 | | | | | | |
| Repeat Accuracy | NA | | | | | | |
| Ripple | NA | | | | | | |
| Time Delay Before Availability (tv) | NA | | | | | | |
| Short Circuit Protection | Yes | | | | | | |
| Operating Temperature | -40 to 85°C [-40 to 185°F] | | | | | | |
| Protection Degree (DIN 40050) | IP65 / IP66 / IP67 / IP68 / IP69K | | | | | | |
| LED Indicators | Illuminated when energized | | | | | | |
| Housing Material | stainless steel [316L]; LED window: Polyetherimide [PEI] | | | | | | |
| Sensing Face Material | active face: Liquid Crystal Polymer (LCP) white | | | | | | |
| Shock/Vibration | See Proximity Sensor Terminology | | | | | | |
| Weight | 0.026 kg | 0.024 kg | 0.029 kg | 0.027 kg | | | |
| Connection | 4-pin M12 quick-disconnect | | | | | | |
| Agency Approvals | cULus E328811, CE | | | | | | |

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

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