

PART R-01 ~ R-13

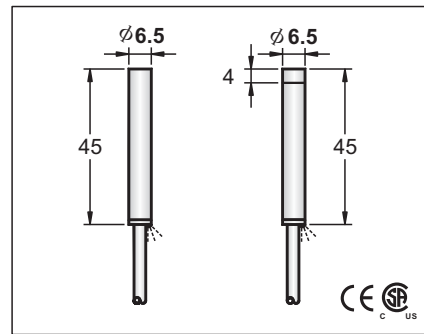
| |
|---------------------------|
| Diameter |
| ● Shielded ○ non-Shielded |
| Switching Distance Sn mm |
| Housing Material |
| ● With LED ○ Without LED |

| |
|-----------------------|
| Dimensions (unit: mm) |
|-----------------------|

| | |
|---|---|
| Operating Voltage | 10-30VDC |
| Ripple | <10% |
| No Load Current | <10mA |
| Max. Load Current | 200mA |
| Leakage Current | <0.01mA |
| Surge Current | - |
| Min. Load Current | - |
| Voltage Drop | <2VDC |
| Switching Frequency | 100HZ |
| Response Time | 1.5ms/1.5ms |
| Switching Hysteresis | <15%(Sr) |
| Repeat Accuracy | <5%(Sr) |
| Protection Category | IP67 |
| Operating Temperature | -25°C—+70°C |
| Temperature Drift | <10%(Sr) |
| Short Circuit Protection | YES |
| Overload Trip Point | 220mA |
| Time Delay Before Availability | <25ms |
| EMC | RFI>3V/m / EFT>1KV / ESD>4KV (contact) |
| Shock / Vibration | IEC 60947-5-2, Part 7.4.1 / IEC 60947-5-2, Part 7.4.2 |
| Material Active Face | POM |
| DC 3 wire 10-30V NPN N.O. | CCM1-D0601N-A3U2 1 CCM2-D0603N-A3U2 |
| DC 3 wire 10-30V NPN N.C. | CCM1-D0601N-B3U2 2 CCM2-D0603N-B3U2 |
| DC 3 wire 10-30V PNP N.O. | CCM1-D0601P-A3U2 3 CCM2-D0603P-A3U2 |
| DC 3 wire 10-30V PNP N.C. | CCM1-D0601P-B3U2 4 CCM2-D0603P-B3U2 |
| DC 4 wire 10-30V Changeover PNP (N.O. & N.C.) | |
| DC 4 wire 10-30V Changeover NPN (N.O. & N.C.) | |
| DC 2 wire 10-60V N.O. | |
| DC 2 wire 10-60V N.C. | |
| DC 3 wire 10-55v NPN N.O. or NAMUR | |
| DC 3 wire 10-55v NPN N.C. | |
| DC 3 wire 10-55v PNP N.O. | |
| DC 3 wire 10-55v PNP N.C. | |
| AC 2 wire 20-250V N.O. | |
| AC 2 wire 20-250V N.C. | |
| AC 2 wire 20-250V N.O. or N.C. Changeable | |
| AC/DC 2 wire 20-250V N.O. | |
| AC/DC 2 wire 20-250V N.C. | |
| AC/DC 2 wire 20-250V N.O. or N.C. Changeable | |
| Remark | |
| Cable 2M (PVC) | 3φ3x0.15 |
| Weight | appro.36g |

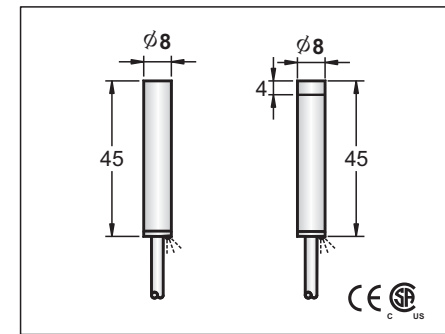
DC CAPACITIVE PROXIMITY SWITCH

| φ 6.5 | |
|--|------|
| ● | ○ |
| 1 mm | 3 mm |
| stainless steel or nickel plated brass | |
| ● | |



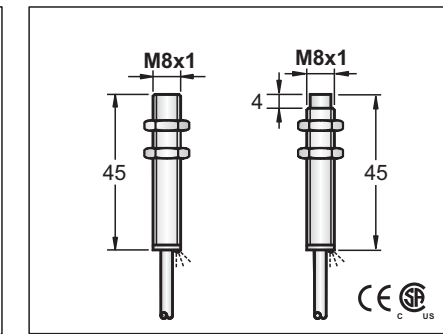
| | |
|---|---|
| Operating Voltage | 10-30VDC |
| Ripple | <10% |
| No Load Current | <10mA |
| Max. Load Current | 200mA |
| Leakage Current | <0.01mA |
| Surge Current | - |
| Min. Load Current | - |
| Voltage Drop | <2VDC |
| Switching Frequency | 100HZ |
| Response Time | 1.5ms/1.5ms |
| Switching Hysteresis | <15%(Sr) |
| Repeat Accuracy | <5%(Sr) |
| Protection Category | IP67 |
| Operating Temperature | -25°C—+70°C |
| Temperature Drift | <10%(Sr) |
| Short Circuit Protection | YES |
| Overload Trip Point | 220mA |
| Time Delay Before Availability | <25ms |
| EMC | RFI>3V/m / EFT>1KV / ESD>4KV (contact) |
| Shock / Vibration | IEC 60947-5-2, Part 7.4.1 / IEC 60947-5-2, Part 7.4.2 |
| Material Active Face | POM |
| DC 3 wire 10-30V NPN N.O. | CCM1-D0601N-A3U2 1 CCM2-D0603N-A3U2 |
| DC 3 wire 10-30V NPN N.C. | CCM1-D0601N-B3U2 2 CCM2-D0603N-B3U2 |
| DC 3 wire 10-30V PNP N.O. | CCM1-D0601P-A3U2 3 CCM2-D0603P-A3U2 |
| DC 3 wire 10-30V PNP N.C. | CCM1-D0601P-B3U2 4 CCM2-D0603P-B3U2 |
| DC 4 wire 10-30V Changeover PNP (N.O. & N.C.) | |
| DC 4 wire 10-30V Changeover NPN (N.O. & N.C.) | |
| DC 2 wire 10-60V N.O. | |
| DC 2 wire 10-60V N.C. | |
| DC 3 wire 10-55v NPN N.O. or NAMUR | |
| DC 3 wire 10-55v NPN N.C. | |
| DC 3 wire 10-55v PNP N.O. | |
| DC 3 wire 10-55v PNP N.C. | |
| AC 2 wire 20-250V N.O. | |
| AC 2 wire 20-250V N.C. | |
| AC 2 wire 20-250V N.O. or N.C. Changeable | |
| AC/DC 2 wire 20-250V N.O. | |
| AC/DC 2 wire 20-250V N.C. | |
| AC/DC 2 wire 20-250V N.O. or N.C. Changeable | |
| Remark | |
| Cable 2M (PVC) | 3φ3x0.15 |
| Weight | appro.36g |

| φ 8 | |
|--|------|
| ● | ○ |
| 1 mm | 3 mm |
| stainless steel or nickel plated brass | |
| ● | |



| | |
|---|---|
| Operating Voltage | 10-30VDC |
| Ripple | <10% |
| No Load Current | <10mA |
| Max. Load Current | 200mA |
| Leakage Current | <0.01mA |
| Surge Current | - |
| Min. Load Current | - |
| Voltage Drop | <2VDC |
| Switching Frequency | 100HZ |
| Response Time | 1.5ms/1.5ms |
| Switching Hysteresis | <15%(Sr) |
| Repeat Accuracy | <5%(Sr) |
| Protection Category | IP67 |
| Operating Temperature | -25°C—+70°C |
| Temperature Drift | <10%(Sr) |
| Short Circuit Protection | YES |
| Overload Trip Point | 220mA |
| Time Delay Before Availability | <25ms |
| EMC | RFI>3V/m / EFT>1KV / ESD>4KV (contact) |
| Shock / Vibration | IEC 60947-5-2, Part 7.4.1 / IEC 60947-5-2, Part 7.4.2 |
| Material Active Face | POM |
| DC 3 wire 10-30V NPN N.O. | CCM1-D0801N-A3U2 1 CCM2-D0803N-A3U2 |
| DC 3 wire 10-30V NPN N.C. | CCM1-D0801N-B3U2 2 CCM2-D0803N-B3U2 |
| DC 3 wire 10-30V PNP N.O. | CCM1-D0801P-A3U2 3 CCM2-D0803P-A3U2 |
| DC 3 wire 10-30V PNP N.C. | CCM1-D0801P-B3U2 4 CCM2-D0803P-B3U2 |
| DC 4 wire 10-30V Changeover PNP (N.O. & N.C.) | |
| DC 4 wire 10-30V Changeover NPN (N.O. & N.C.) | |
| DC 2 wire 10-60V N.O. | |
| DC 2 wire 10-60V N.C. | |
| DC 3 wire 10-55v NPN N.O. or NAMUR | |
| DC 3 wire 10-55v NPN N.C. | |
| DC 3 wire 10-55v PNP N.O. | |
| DC 3 wire 10-55v PNP N.C. | |
| AC 2 wire 20-250V N.O. | |
| AC 2 wire 20-250V N.C. | |
| AC 2 wire 20-250V N.O. or N.C. Changeable | |
| AC/DC 2 wire 20-250V N.O. | |
| AC/DC 2 wire 20-250V N.C. | |
| AC/DC 2 wire 20-250V N.O. or N.C. Changeable | |
| Remark | |
| Cable 2M (PVC) | 3φ3x0.15 |
| Weight | apprx.38g apprx.36g |

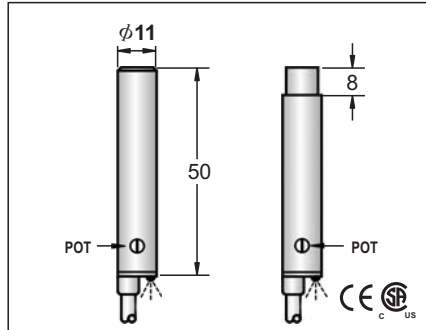
| M 8 | |
|--|------|
| ● | ○ |
| 1 mm | 3 mm |
| stainless steel or nickel plated brass | |
| ● | |



| | |
|---|---|
| Operating Voltage | 10-30VDC |
| Ripple | <10% |
| No Load Current | <10mA |
| Max. Load Current | 200mA |
| Leakage Current | <0.01mA |
| Surge Current | - |
| Min. Load Current | - |
| Voltage Drop | <2VDC |
| Switching Frequency | 100HZ |
| Response Time | 1.5ms/1.5ms |
| Switching Hysteresis | <15%(Sr) |
| Repeat Accuracy | <5%(Sr) |
| Protection Category | IP67 |
| Operating Temperature | -25°C—+70°C |
| Temperature Drift | <10%(Sr) |
| Short Circuit Protection | YES |
| Overload Trip Point | 220mA |
| Time Delay Before Availability | <25ms |
| EMC | RFI>3V/m / EFT>1KV / ESD>4KV (contact) |
| Shock / Vibration | IEC 60947-5-2, Part 7.4.1 / IEC 60947-5-2, Part 7.4.2 |
| Material Active Face | POM |
| DC 3 wire 10-30V NPN N.O. | CCM1-0801N-A3U2 1 CCM2-0803N-A3U2 |
| DC 3 wire 10-30V NPN N.C. | CCM1-0801N-B3U2 2 CCM2-0803N-B3U2 |
| DC 3 wire 10-30V PNP N.O. | CCM1-0801P-A3U2 3 CCM2-0803P-A3U2 |
| DC 3 wire 10-30V PNP N.C. | CCM1-0801P-B3U2 4 CCM2-0803P-B3U2 |
| DC 4 wire 10-30V Changeover PNP (N.O. & N.C.) | |
| DC 4 wire 10-30V Changeover NPN (N.O. & N.C.) | |
| DC 2 wire 10-60V N.O. | |
| DC 2 wire 10-60V N.C. | |
| DC 3 wire 10-55v NPN N.O. or NAMUR | |
| DC 3 wire 10-55v NPN N.C. | |
| DC 3 wire 10-55v PNP N.O. | |
| DC 3 wire 10-55v PNP N.C. | |
| AC 2 wire 20-250V N.O. | |
| AC 2 wire 20-250V N.C. | |
| AC 2 wire 20-250V N.O. or N.C. Changeable | |
| AC/DC 2 wire 20-250V N.O. | |
| AC/DC 2 wire 20-250V N.C. | |
| AC/DC 2 wire 20-250V N.O. or N.C. Changeable | |
| Remark | |
| Cable 2M (PVC) | 3φ3x0.15 |
| Weight | apprx.40g |

DC CAPACITIVE PROXIMITY SWITCH

| φ11 | |
|--|-------------------|
| ● | ○ |
| 1-4 mm adjustable | 1-8 mm adjustable |
| stainless steel or nickel plated brass | |

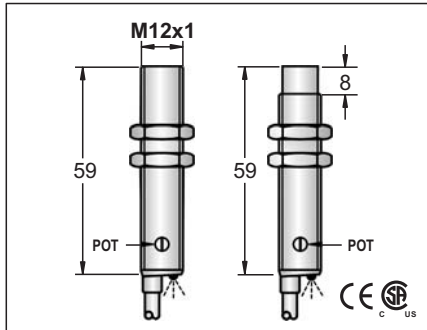


| |
|---|
| 10-30VDC |
| <10% |
| <10mA |
| 200mA |
| <0.01mA |
| - |
| - |
| <2VDC |
| 100HZ |
| 1.5ms/1.5ms |
| <15%(Sr) |
| <5%(Sr) |
| IP67 |
| -25°C — +70°C |
| <10%(Sr) |
| YES |
| 220mA |
| <25ms |
| RFI>3V/m / EFT>1KV / ESD>4KV (contact) |
| IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2 |
| POM |

| | | |
|------------------|---|------------------|
| CCM1-D1104N-A3U2 | 1 | CCM2-D1108N-A3U2 |
| CCM1-D1104N-B3U2 | 2 | CCM2-D1108N-B3U2 |
| CCM1-D1104P-A3U2 | 3 | CCM2-D1108P-A3U2 |
| CCM1-D1104P-B3U2 | 4 | CCM2-D1108P-B3U2 |
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|------------|------------|
| 4 φ3x0.15 | |
| approx.56g | approx.55g |

| M12 | |
|--|-------------------|
| ● | ○ |
| 1-4 mm adjustable | 1-8 mm adjustable |
| stainless steel or nickel plated brass | |

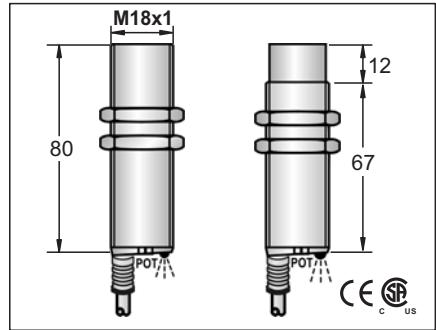


| |
|---|
| 10-30VDC |
| <10% |
| <10mA |
| 200mA |
| <0.01mA |
| - |
| - |
| <2VDC |
| 100HZ |
| 1.5ms/1.5ms |
| <15%(Sr) |
| <5%(Sr) |
| IP67 |
| -25°C — +70°C |
| <10%(Sr) |
| YES |
| 220mA |
| <25ms |
| RFI>3V/m / EFT>1KV / ESD>4KV (contact) |
| IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2 |
| PBT |

| | | |
|-----------------|---|-----------------|
| CCM1-1204N-A3U2 | 1 | CCM2-1208N-A3U2 |
| CCM1-1204N-B3U2 | 2 | CCM2-1208N-B3U2 |
| CCM1-1204P-A3U2 | 3 | CCM2-1208P-A3U2 |
| CCM1-1204P-B3U2 | 4 | CCM2-1208P-B3U2 |
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|------------|------------|
| 4 φ3X0.15 | |
| approx.66g | approx.65g |

| M18 | |
|--|--------------------|
| ● | ○ |
| 2-8 mm adjustable | 2-15 mm adjustable |
| stainless steel or nickel plated brass | |



| |
|---|
| 10-30VDC |
| <10% |
| <10mA |
| 300mA |
| <0.01mA |
| - |
| - |
| <2VDC |
| 100HZ |
| 1.5ms/1.5ms |
| <15%(Sr) |
| <5%(Sr) |
| IP67 |
| -25°C — +70°C |
| <10%(Sr) |
| YES |
| 350mA |
| <25ms |
| RFI>3V/m / EFT>1KV / ESD>4KV (contact) |
| IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2 |
| PBT |

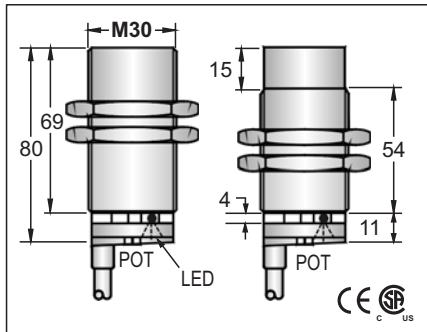
| | | |
|-----------------|---|-----------------|
| CCM1-1808N-A3U2 | 1 | CCM2-1815N-A3U2 |
| CCM1-1808N-B3U2 | 2 | CCM2-1815N-B3U2 |
| CCM1-1808P-A3U2 | 3 | CCM2-1815P-A3U2 |
| CCM1-1808P-B3U2 | 4 | CCM2-1815P-B3U2 |
| CCM1-1808P-S4U2 | 6 | CCM2-1815P-S4U2 |
| CCM1-1808N-S4U2 | 5 | CCM2-1815N-S4U2 |
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|-------------|-------------|
| 5.0 φ44x0.1 | |
| approx.115g | approx.110g |

DC CAPACITIVE PROXIMITY SWITCH

DC CAPACITIVE PROXIMITY SWITCH

| M30 | |
|--|--------------------|
| ● | ○ |
| 2-20 mm adjustable | 2-30 mm adjustable |
| stainless steel or nickel plated brass | |
| ● | |



| |
|---|
| 10 -30VDC |
| <10% |
| <10mA |
| 300mA |
| <0.01mA |
| - |
| - |
| <2VDC |
| 100HZ |
| 1.5ms/1.5ms |
| <15%(Sr) |
| <5%(Sr) |
| IP67 |
| -25°C — +70°C |
| <10%(Sr) |
| YES |
| 350mA |
| <25ms |
| RFI>3V/m / EFT>1KV / ESD>4KV (contact) |
| IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2 |
| PBT |

| | | |
|-----------------|---|-----------------|
| CCM1-3020N-A3U2 | 1 | CCM2-3030N-A3U2 |
| CCM1-3020N-B3U2 | 2 | CCM2-3030N-B3U2 |
| CCM1-3020P-A3U2 | 3 | CCM2-3030P-A3U2 |
| CCM1-3020P-B3U2 | 4 | CCM2-3030P-B3U2 |
| CCM1-3020P-S4U2 | 6 | CCM2-3030P-S4U2 |
| CCM1-3020N-S4U2 | 5 | CCM2-3030N-S4U2 |
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|------------------------------------|-------------|
| 5.8 ϕ 3x0.5(5.8 ϕ 4x0.5) | |
| approx.231g | approx.219g |

DC CAPACITIVE PROXIMITY SWITCH