# Cylinder Position Sensor Selection Guide

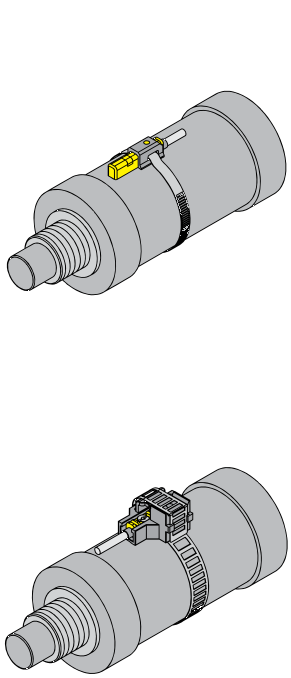
| Cylinder Position Sensors | | | | |
|---|---|---|---|---|
| |  |  |  |  |
| **Housing** | **UNT** | **UNTK** | **INT** | **UNR** |
| **Pages** | **G13** | **G15** | **G17** | **G19** |
| **Style of Cylinder** | | | | |

| Cylinder Position Sensors | | | | |
|---|---|---|---|---|
| |  |  |  |  |
| **Housing** | **PST** | **KST** | **AKT** | **IKE/IKT** |
| **Pages** | **G21** | **G23** | **G25** | **G27** |
| **Style of Cylinder** | | | | |

| Cylinder Position Sensors | | Inductive | World Clamp Sensors |
|---|---|---|---|
| |  |  |  |  |
| **Housing** | **IKM** | **NST** | **CRS** | **Variable** |
| **Pages** | **G29** | **G31** | **G33 - 36** | **G37 - 42** |
| **Style of Cylinder** | | | | |

| | Magnetic Analog | | |
|---|---|---|---|
| |  |  | |
| **Housing** | **UNTL** | **25 mm** | **Variable** |
| **Pages** | **G43** | **G45** | **G47** |
| **Style of Cylinder** | | | |

# Cylinder Position Sensors

| Drawing | Manufacturer | Cylinder Series | Turck Sensor | Turck Bracket | |
|---|---|---|---|---|---|
|  | Parker | P, SRM, SRDM, XLT, XLR, XKB, (S, SRD)[3] | UNT Style | KLRC-UNT*[4] | KLRC with ASB Clamp[2] |
| | | | UNR Style | KLRC-2 with ASB Clamp[2] | |
| | Festo | CRDG, CRDSNU, CRDSW, DSNU, SDNUL, DSEU, ESEU, ESNU, ESW, (DSN)[3] | UNT Style | KLRC-UNT*[4] | KLRC with ASB Clamp[2] |
| | | | UNR Style | KLRC-2 with ASB Clamp[2] | |
| | Bimba | Original Line II (0L2), Original Line (M, MH, MNR, MC, MRS), Doublle Wall (DW, DWD, DWN, DWM), PC, Z Series (M04, M09, M17, M31), Linear Thrusters (T, TE) | UNT Style | KLRC-UNT*[4] | KLRC with ASB Clamp[2] |
| | | | UNR Style | KLRC-2 with ASB Clamp[2] | |
|  | SMC | NCM, NCJ2, NCG, NCA1, CJ2, CM2, CG1, MGG | UNT Style | KLRC-UNT*[4] | KLRC with ASB Clamp[2] |
| | | | UNR Style | KLRC-2 with ASB Clamp[2] | |
| | Norgren | Round Line (RL) | UNT Style | KLRC-UNT*[4] | KLRC with ASB Clamp[2] |
| | | | UNR Style | KLRC-2 with ASB Clamp[2] | |
| | Fabco-Air | Pancake (X, XK, O, OP, XDR, XDRK, ODR), Linear Slide (L, S, E,) | UNT Style | KLRC-UNT*[4] | KLRC with ASB Clamp[2] |
| | | | UNR Style | KLRC-2 with ASB Clamp[2] | |

1. This Mounting is to be used only when "Switch Rail" is present on the cylinder.
2. ASB size is determined by the cylinder diameter. See Table 1. KLDT is required when the UNT sensor has integral quick disconnect.
3. These styles are not usually available with magnets.
4. Bracket size determined by the cylinder diameter. See Table 2.

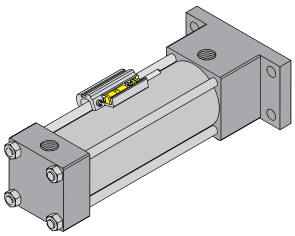
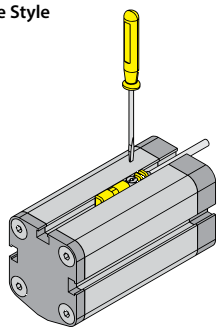
| UNT Housing with KLDT-UNT and ASB Style Strap | | |
|---|---|---|
| Cylinder Diameter | | Clamp |
| Inches | Millimeters | (Stainless Steel) |
| .276 - .433 | 7 - 11 | ASB-1 |
| .433 - .748 | 11 - 19 | ASB-2 |
| .709 - 1.142 | 18 - 29 | ASB-3 |
| 1.102 - 1.535 | 28 - 39 | ASB-4 |
| 1.496 - 1.929 | 38 - 49 | ASB-5 |
| 1.890 - 2.323 | 48 - 59 | ASB-6 |
| 2.283 - 2.717 | 58 - 69 | ASB-7 |
| 2.677 - 3.110 | 68 - 79 | ASB-8 |

**Table 1**

| UNT Housing with KLRC-UNT* | | |
|---|---|---|
| Part Number | Cylinder Diameter | |
| | Inches | Millimeters |
| KLRC-UNT1 | .315 - .984 | 8 - 25 |
| KLRC-UNT2 | .984 - 2.480 | 25 - 63 |
| KLRC-UNT3 | 2.480 - 5.118 | 63 - 130 |
| KLRC-UNT4 | 5.118 - 9.843 | 130 - 250 |

**Table 2**

# Cylinder Position Sensors

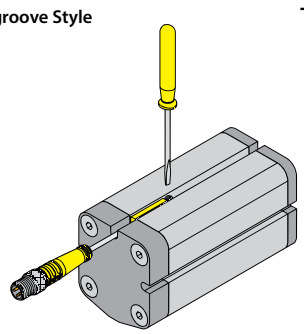
| Drawing | Manufacturer | Cylinder Series | Turck Sensor | Turck Bracket |
|---|---|---|---|---|
| **Tie Rod Style**   **KLZ* (Table 3)** | Numatics | A, E, S, L, B Square, VDMA-Z | UNT Style | KLZ Series Clamp[1] |
| | Parker | P5E, HBT, LPM, (S, C, LP)[2] | UNT Style | KLZ Series Clamp[1] |
| | PHD | A2, A3, AS, AV, AV2, A3V, AVS, HV, HV2, H3V, HVS, DAV, DHV, EA, EL, EH, ES, NPG, NHG, NEAG, NEHG, TD, (A)[2] | UNT Style | KLZ Series Clamp[1] |
| | Festo | DNGU, DNGUL, DNGUT, DNU, DNUL, CRDNG, CRDNGS, DNG, DNGL, DNGZK, DNGZL, DNGZS, DKE | UNT Style | KLZ Series Clamp[1] |
| | Bimba | Flat-I (FO, FOD, FOP, FOR, FOS, FS, FSD, FSR, FSS, F02, F03, F04), Flat-II (FT, FST) | UNT Style | KLZ Series Clamp[1] |
| | SMC | ECQ2, MB, C95 | UNT Style | KLZ Series Clamp[1] |
| | Norgren | A, EA, SS, N, J, EJ, 8000/M | UNT Style | KLZ Series Clamp[1] |
| | Turn-Act | NFPA Series | UNT Style | KLZ Series Clamp[1] |
| | Fabco-Air | Long Stroke (321, 521, 721, 1221, S321, S521, S721, S1221), Hi-Power (HP, THP, UHP), Multi-Power (MP, BA, BP), Linear Slide [3] (SE, EZ, TS) | UNT Style | KLZ Series Clamp[1] |
| **T-Groove Style**   | Parker | P1M, P5T, SST | UNT Style | No Additional Bracket Required |
| | Festo | DNC, DNCT, DFM, DPZ, DPZJ, DZF, EZH, ADVU, ADVULQ, ADVUL | UNT Style | No Additional Bracket Required |
| | SMC | CUJ, CXS, MGQ, MY1B, MHC, MHL2 | UNT Style | No Additional Bracket Required |

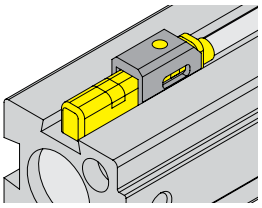
1. When using KLZ Series Clamps, user must determine clamp size best suited for application.
2. These styles are usually not available with magnets.
3. Some of these may be equipped to handle 5, 8, or 12 mm inductive proximity sensors.

| UNT Sensor with KLZ* Mounting | | |
|---|---|---|
| **Part Number** | **Tie Rod Diameter Maximum** | |
| | **Inches** | **Millimeters** |
| KLZ1A-INT CLAMP | .236 | 6.0 |
| KLZ1M-UNT CLAMP | .290 | 7.37 |
| KLZ2M-UNT CLAMP | .351 | 8.93 |
| KLZ3M-UNT CLAMP | .482 | 12.25 |

**Table 3**

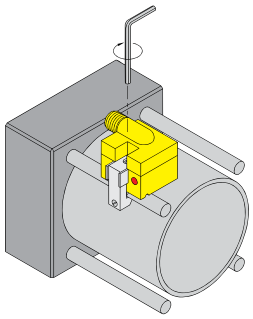
# Cylinder Position Sensors

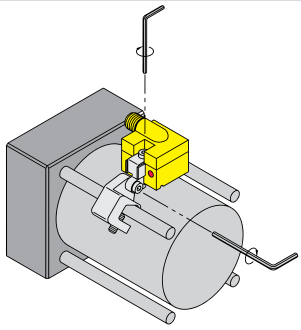
| Drawing | Manufacturer | Cylinder Series | Turck Sensor | Turck Bracket |
|---|---|---|---|---|
| **C-groove Style**  | Numatics | K | UNR Style | No Additional Bracket Required |
| | Festo | ADVC | UNR Style | No Additional Bracket Required |
| | Bimba | Twin Bore (TB, TBA, TBD), EF1 Series (EF, EFD, EFS, EFR), EF2 Series (EFT), PneuMoment Series (PM) | UNR Style | No Additional Bracket Required |
| | SMC | (CQ2, CQs, NCDQ2, NCQ2)[1], (CDQ2)[1], CU, CUK, CUW, MU, MHF2, Air Slides (MXQ) | UNR Style | No Additional Bracket Required |
| | Compact Air | B, C | UNR Style | No Additional Bracket Required |
| | PHD | CRH<br>O-groove | UNR Style | No Additional Bracket Required |

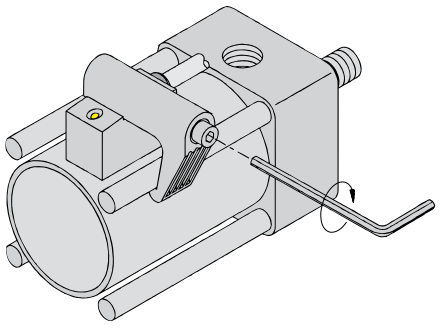
| Drawing | Manufacturer | Cylinder Series | Turck Sensor | Turck Bracket |
|---|---|---|---|---|
| **Dovetail Style**  | Numatics | B,F, Compact C, Short Stroke, Rotary Actuator, Pee Wee (O, P, Q), VDMA-V, Ring Series | UNT Style | KLDT-UNT3 |
| | Norgren | 90000, 91000, 92000, 93000, Lite (A44000) | UNT Style | KLDT-UNT3 |
| | Fabco-Air | Square 1 (SQ, SQF, SQL)<br>Pancake (X,XK, O, OP, XDR, XDRK, ODR)<br>Linear Slide1 (GB, L, S, E, SE, EZ, TS)[2] | UNR Style | KLFA-2UNR |
| | Compact Air | Inch Series (AB, AS, AR, AT)<br>Inch Series (B, R, S, T)[3]<br>Ball Slide (BSC)<br>GC, CD, ACLA, ACLAD, (CLA, CLAD)[3]<br>Metric Series (AWS, AWB, AWT)<br>Metric Series (WS, WB, WT)[3]<br>B/Base Mount, S/End Mount<br>R/ End Mount, (CSC, PSC, TCL)[4] | UNT Style | KLDT-UNT4 |
| | SMC | CP95 | UNT Style | KLDT-UNT6 |

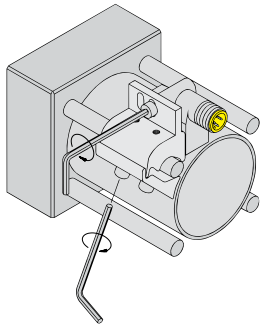
1. CQ2, NC(D) Q2, CQS, NCQ2 cylinders may have multiple grooves and may not be suited for the UNR style sensor.
2. This mounting is to be used only when dovetail style mounting rail is present on the cylinder.
3. These styles are usually not available with magnets.
4. This mounting is to be used only when sensor mounting rail is present on collet.

# Cylinder Position Sensors

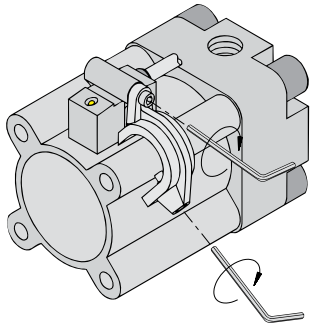
| Drawing | AKT Housing with KLA-1 Clamp | |
|---|---|---|
|  | **Cylinder Diameter** | 1.26 - 1.97 inches<br>32 - 50 mm |
| | **Rod Diameter** | 0.16 - 0.31 inches<br>4 - 8 mm |
| | **Clamp** | KLA-1<br>(Aluminum) |

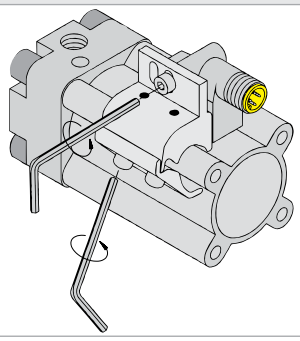
| Drawing | AKT Housing with KLA-2 Clamp | |
|---|---|---|
|  | **Cylinder Diameter** | 1.57 - 4.92 inches<br>40 - 125 mm |
| | **Rod Diameter** | 0.28 - 0.51 inches<br>7 - 13 mm |
| | **Clamp** | KLA-2<br>(Die-cast Zinc) |

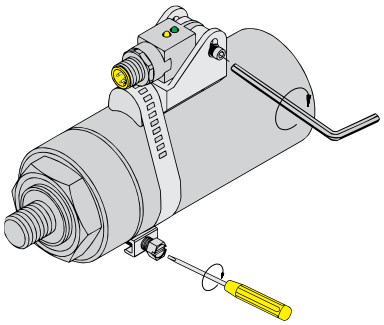
| Drawing | IKE, IKT, and IKM Housing with KLI-1 or KLI-3 Clamp | |
|---|---|---|
|  | **Cylinder Diameter** | 1.26 - 3.94 inches<br>32 - 100 mm | 2.48 - 6.30 inches<br>63 - 160 mm |
| | **Rod Diameter** | 0.16 - 0.51 inches<br>4 - 13 mm | 0.24 - 0.63 inches<br>6 - 16 mm |
| | **Clamp** | KLI-1<br>(Die-cast Zinc) | KLI-3<br>(Die-cast Zinc) |

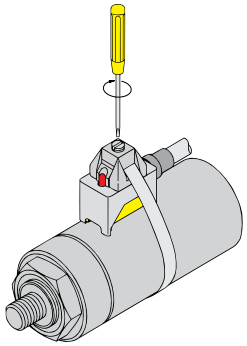
| Drawing | IKE, IKT, and IKM Housing with KLI-5Z or KLI-6Z Clamp | |
|---|---|---|
|  | **Cylinder Diameter** | 1.26 - 2.48 inches<br>32 - 63 mm | 1.97 - 4.92 inches<br>50 - 125 mm |
| | **Rod Diameter** | 0.16 - 0.31 inches<br>4 - 8 mm | 0.24 - 0.51 inches<br>6 - 13 mm |
| | **Clamp** | KLI-5Z<br>(Aluminum) | KLI-6Z<br>(Aluminum) |

# Cylinder Position Sensors

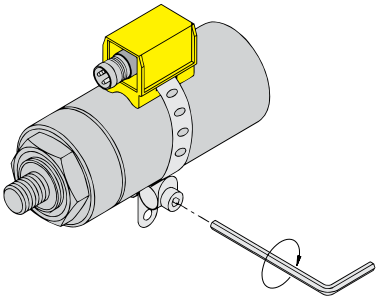
| Drawing | IKE, IKT, and IKM Housing with KLI-2 Clamp | |
|---|---|---|
|  | **Cylinder Diameter** | 1.26 - 3.94 inches<br>32 - 100 mm |
| | **Rod Diameter** | 0.35 - 0.79 inches<br>9 - 20 mm |
| | **Clamp** | KLI-2<br>(Die-cast Zinc) |

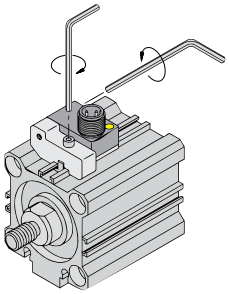
| Drawing | IKE, IKT, and IKM Housing with KLI-5 or KLI-6 Clamp | | |
|---|---|---|---|
|  | **Cylinder Diameter** | 1.26 - 1.97 inches<br>32 - 50 mm | 1.97 - 3.94 inches<br>50 - 100 mm |
| | **Rod Diameter** | 0.31 - 0.55 inches<br>8 - 14 mm | 0.43 - 0.75 inches<br>11 - 19 mm |
| | **Clamp** | KLI-5<br>(Aluminum) | KLI-6<br>(Aluminum) |

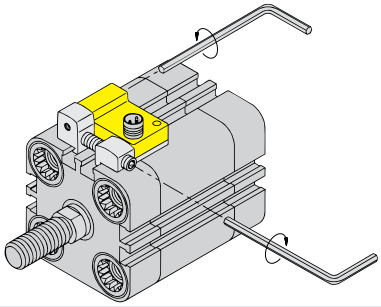
| Drawing | IKE, IKT, and IKM Housing with KLI-CB64 or KLI-CB124 Clamp | | |
|---|---|---|---|
|  | **Cylinder Diameter** | 0.79 - 2.52 inches<br>20 - 64 mm | 0.79 - 4.88 inches<br>20 - 124 mm |
| | **Rod Diameter** | 0.31 - 0.55 inches<br>8 - 14 mm | 0.43 - 0.75 inches<br>11 - 19 mm |
| | **Clamp** | KLI-CB64<br>(Stainless Steel/Steel) | KLI-CB124<br>(Stainless Steel/Steel) |

| Drawing | KST Housing with KST-SB170 and KST-SB335 Clamps | | |
|---|---|---|---|
|  | **Cylinder Diameter** | 0.31 - 0.99 inches<br>8 - 25 mm | 0.31 - 3.15 inches<br>8 - 80 mm |
| | **Strap** | KST-SB170<br>(Stainless Steel) | KST-SB335<br>(Stainless Steel) |
| | **Mount** | KST-MG<br>(Die-cast Zinc) | |
| | **Screw Plate** | KST-SE<br>(Die-cast Zinc) | |

# Cylinder Position Sensors

| Drawing | PST Housing with KLP80-VA and KLP200-VA Clamps | | |
|---|---|---|---|
|  | **Cylinder Diameter** | 0.31 - 3.15 inches<br>8 - 80 mm | 3.15 - 7.87 inches<br>0 - 200 mm |
| | **Clamp** | KLP80-VA<br>(Stainless steel band, brass nuts) | KLP200-VA<br>(Stainless steel band, brass nuts) |

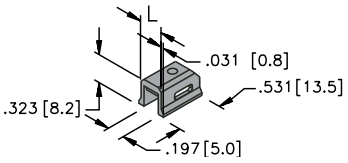
| Drawing | NST Housing with KLQ-1 or KLQ-2 Clamps | |
|---|---|---|
|  | **Cylinder Diameter** | 0.47 - 3.94 inches<br>12 - 100 mm |
| | **Cylinder Manufacturer** | SMC |
| | **Cylinder Family** | NCDQ2 |
| | **Clamp** | SMC-325<br>(Anodized Aluminum) |

| Drawing | NST Housing with KLN-3 Clamp | |
|---|---|---|
|  | **Cylinder Diameter** | 0.47 - 3.94 inches<br>12 - 100 mm |
| | **Groove Diameter** | 0.20 - 0.53 (0.83) inches<br>5.2 - 13.5 (21)* mm |
| | **Clamp** | KLN-3<br>(Anodized Aluminum) |
| | ***Accessory** | Longer M5 x 35<br>set screw (A0050) |

# Cylinder Position Sensors

## UNT Mounting Clamps

**KLDT-UNT2**

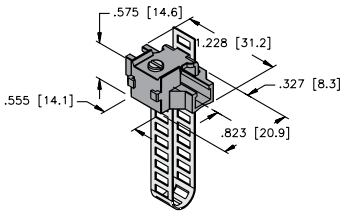



| Part Number | "L" inches | "L" mm |
|---|---|---|
| KLDT-UNT2 | .276 | 7 |
| KLDT-UNT3 | .370 | 9.4 |
| KLDT-UNT4 | .453 | 11.5 |
| KLDT-UNT5 | .496 | 12.6 |
| KLDT-UNT6 | .413 | 10.5 |
| KLDT-UNT7 | .260 | 6.6 |

**Note:** For outside dimension of beveled ears add 1.6 mm to bracket width listed.

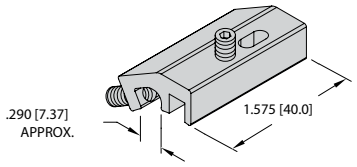
| UNT Housing with KLDT-UNT and ASB Style Strap | | |
|---|---|---|
| Cylinder Diameter | | Clamp (Stainless Steel) |
| Inches | Millimeters | |
| .276 - .433 | 7 - 11 | ASB-1 |
| .433 - .748 | 11 - 19 | ASB-2 |
| .709 - 1.142 | 18 - 29 | ASB-3 |
| 1.102 - 1.535 | 28 - 39 | ASB-4 |
| 1.496 - 1.929 | 38 - 49 | ASB-5 |
| 1.890 - 2.323 | 48 - 59 | ASB-6 |

**KLRC-UNT2**

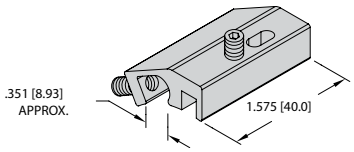



| Part Number | Inches | Millimeters |
|---|---|---|
| KLRC-UNT1 | .315 - .984 | 8 - 25 |
| KLRC-UNT2 | .984 - 2.480 | 25 - 63 |
| KLRC-UNT3 | 2.480 - 5.118 | 63 - 130 |
| KLRC-UNT4 | 5.118 - 9.843 | 130 - 250 |

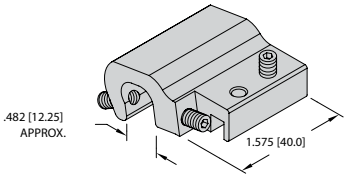
**KLZ1M-UNT CLAMP**



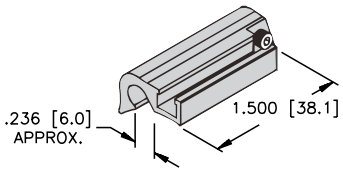

**KLZ2M-UNT CLAMP**



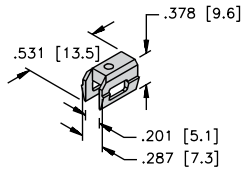
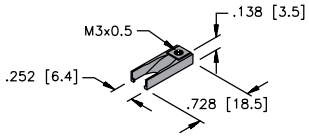
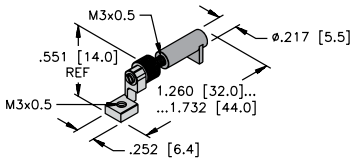
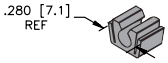
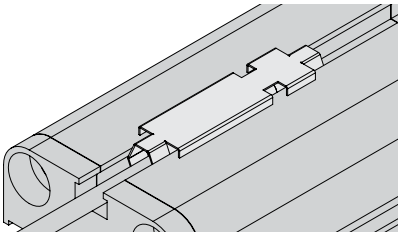
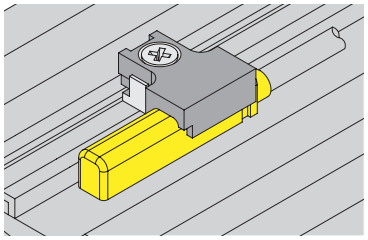

**KLZ3M-UNT CLAMP**




**KLZ1A-INT CLAMP**

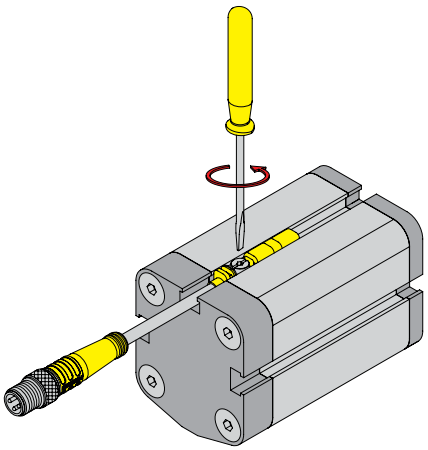


## UNT Mounting Accessories

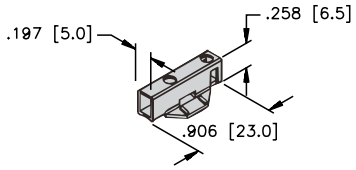
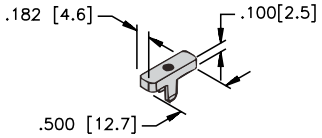
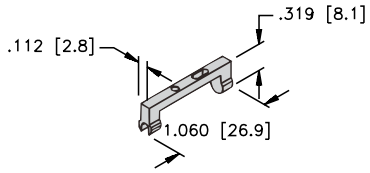
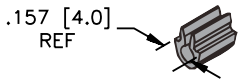
| KLDT-UNT6 (6913355) | UNT-Stopper (4685751) | UNT-Adjusting Bracket (4685750) |
|---|---|---|
|  |  |  |
| **UNT Mounting Screw, 2.5 mm (6901056)** | **M2-BIM-UNT MTG SCRW. 1.5 mm (6901050)** | **UNT-Cable Clip (6900456)** |
|  |  |  |
| **SG-UNT (A9800)** | **KLT-UNT1 (6913377)** | |
|  |  <br>For use with SMC 325 Rail | |

## UNT Sensor Mounting

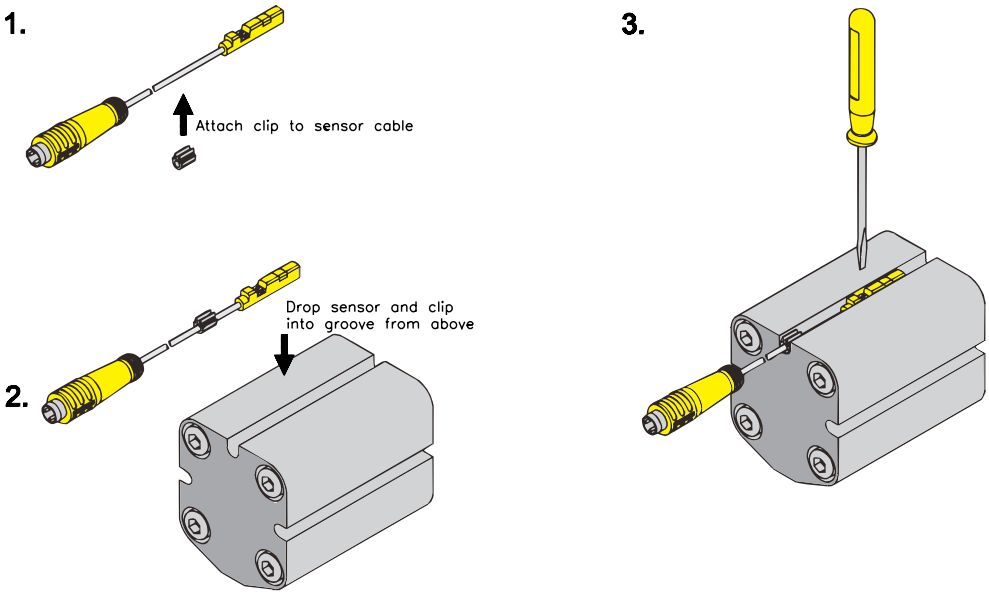
**Note:** Turn screw counter-clockwise to tighten.



## UNR Mounting Accessories

| KLR-2 UNR | KLFA-UNR | KLTR-2 UNR |
|---|---|---|
|  |  |  |
| **UNR Cable Clip (6900428)** | **M1.6 BIM-UNR-MTG SCR. 1.3 mm (6901055)** | |
|  |  | |

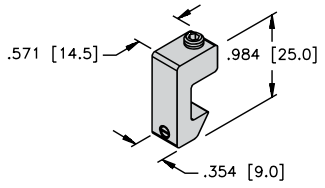
## UNR Sensor Mounting



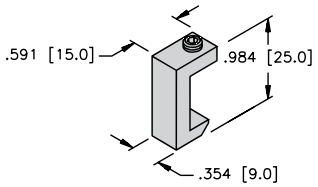

**Note:** Turn screw counter-clockwise to tighten. Use of mounting clip is optional.

## Mounting Clamps

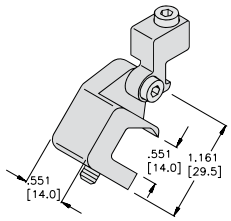
### KLA-1



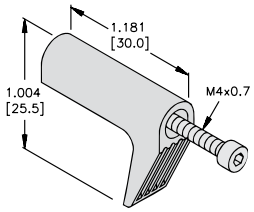

### KLA-3M



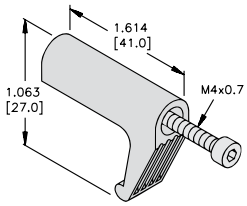

### KLA-2



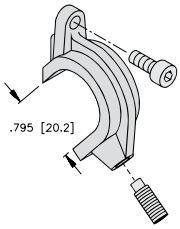

### KLI-1



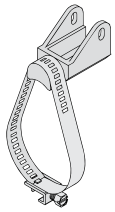

### KLI-3




### KLI-2

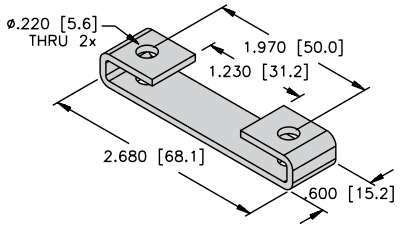



### KLI-CB64 and KLI-CB124



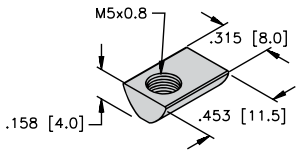
## Mounting Brackets for Q25L Sensor

### MB-Q21



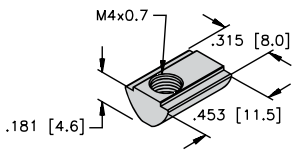

Mounting Bracket

### MN-M5-Q25



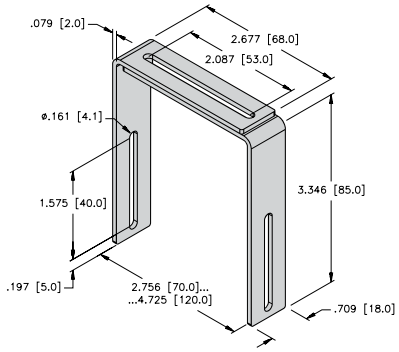

Sliding block with M5 thread for the backside profile

### MN-M4-Q25



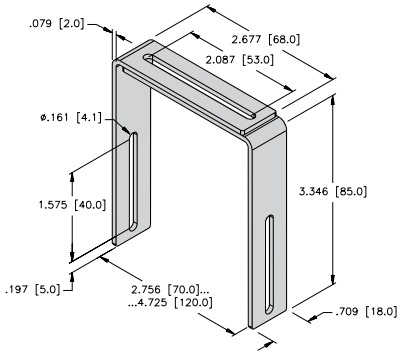

Sliding block with M4 thread for the backside profile

### MB2.1-Q25



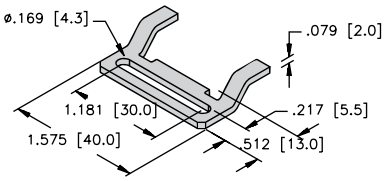

Mounting bracket for cylinders 40-60 mm

### MB2.2-Q25




Mounting bracket for cylinders 70-120 mm

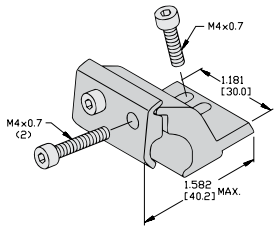
### MB1-Q25



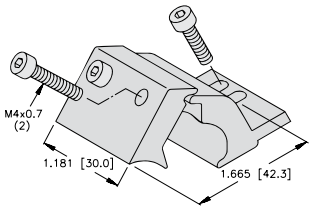

Mounting Clip

## Mounting Clamps

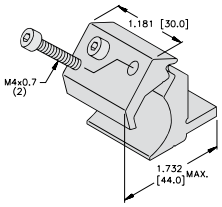
### KLI-5



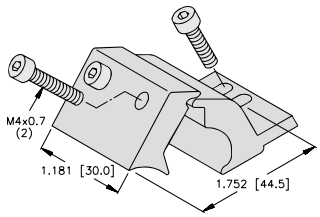

### KLI-5Z



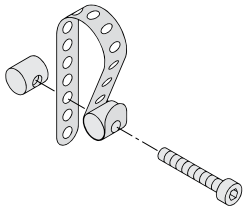

### KLI-6



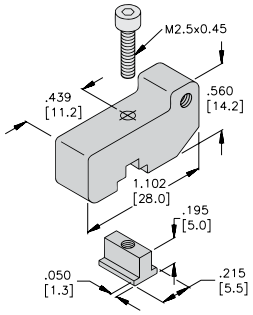

### KLI-6Z



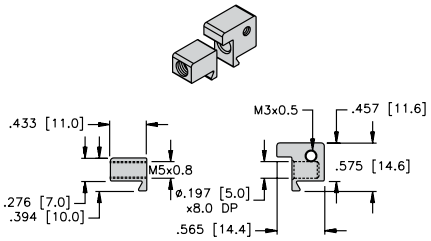

### KLP 80-VA and KLP 200-VA



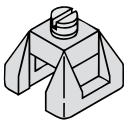
### SMC-325



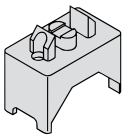

### KLN-3



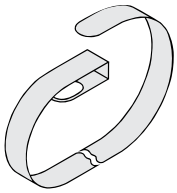

### KST-SE (46736)



### KST-MG (46735)

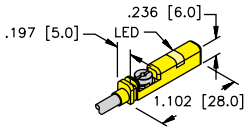
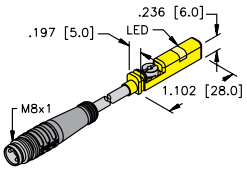
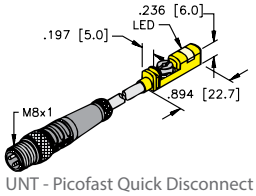
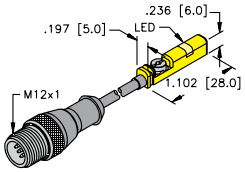
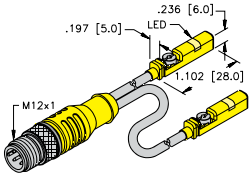
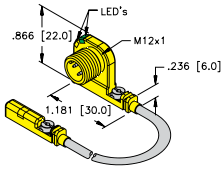


### KST-SB170 and KST-SB335

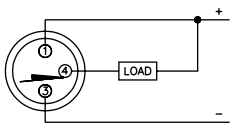
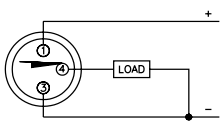
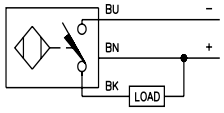
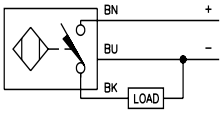
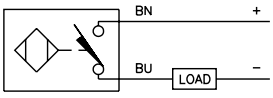
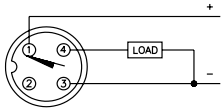
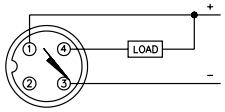
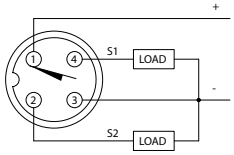


# Cylinder Position Sensors | BIM-UNT

**T-groove, C-groove, Tie-rod, and Round Cylinder Style**

| Housing Style | Dimension Drawings | |
|---|---|---|
|  | A  UNT - Potted-In Cable | B  UNT - Picofast® Quick Disconnect |
| C  UNT - Picofast Quick Disconnect | D  UNT - Eurofast® Quick Disconnect | E  UNT - Eurofast Quick Disconnect |
| F  UNT - Eurofast Quick Disconnect | | |

**Wiring Diagrams/Mating Cordsets**

| | | | |
|---|---|---|---|
| 1  Mating Cordset: PKG 3Z-* | 2  Mating Cordset: PKG 3Z-*; PKG 3M-* | 3  | 4  |
| 5  | 6  Mating Cordset: RK 4T-* | 7  Mating Cordset: RK 4T-* | 8  Mating Cordset: RK 4.4T-*; RKC 4.4T-* |

## A13 — 3-wire DC - Magnetic (AN, RN, AP, RP)

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Power-On Effect: | Per IEC 947-5-2 |
| Differential Travel (Hysteresis): | ≤1 mm | Reverse Polarity Protection: | Incorporated |
| Voltage Drop Across Conducting Sensor: | ≤1.8 V | Wire-Break Protection: | Incorporated |
| Trigger Current for Short Circuit Protection: | ≥220 mA on 200 mA Load Current | Transient Protection: | Per EN 60947-5-2 |
| | ≥170 mA on 150 mA Load Current | Temperature Drift: | ≤0.1 mm, ≤0.3 mm (UNR) |
| | ≥120 mA on 100 mA Load Current | Shock: | 30 g, 11 ms |
| Off-State (Leakage) Current: | ≤0.1 mA | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| No-Load Current: | ≤15 mA; | Repeatability: | ≥± 0.1 mm, ≥± 0.3 mm (UNR) |
| Pass Speed: | ≤10 ms; ≤3 ms (UNR) | | |

## A14 — 2-wire DC - Magnetic (AD, AG)

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Off-State (Leakage) Current: | ≤0.8 mA |
| Differential Travel (Hysteresis): | ≤1 mm | Power-On Effect: | Per IEC 947-5-2 |
| Voltage Drop Across Conducting Sensor: | Non-Polarized (AD) ≤4 V | Transient Protection: | Per EN 60947-5-2 |
| | Polarized (AG) ≤3.5 V | Shock: | 30 g, 11 ms |
| Trigger Current for Short Circuit Protection: | ≥120 mA | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| Pass Speed: | ≤3 ms, ≤10 ms (UNT) | Repeatability: | ≥± 0.1 mm |

**Additional Specifications**

**Magnetic Actuation Strength (Gauss):** 20-350

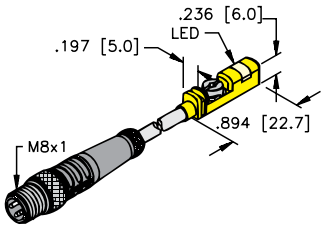
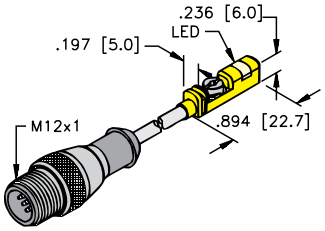
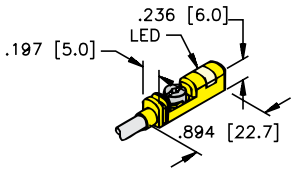
# Cylinder Position Sensors | BIM-UNT

**T-groove, C-groove, Tie-rod, and Round Cylinder Style**

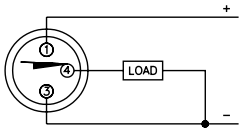
| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BIM-UNT-AN6X** 4685702 | | 3-wire DC, NPN | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | 2M/TPU | A | 3 | A13 |
| **BIM-UNT-AP6X** 4685741 | | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | 2M/TPU | A | 4 | A13 |
| **BIM-UNT-AG41X/S1139/S1160** 4685766 | Irradiated TPU Cable, Wider Range | 2-wire DC | 10-55 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | PA 12 | 2M/TPU | A | 5 | A14 |
| **BIM-UNT-AN6X-0.3-PSG3S** 4685705 | Fixed Coupling Nut | 3-wire DC, NPN | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | 0.3M/TPU | B | 1 | A13 |
| **BIM-UNT-AP6X-0.3-PSG3S** 4685722 | Fixed Coupling Nut | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | 0.3M/TPU | B | 2 | A13 |
| **BIM-UNT-AP6X-0.3-PSG3M** 4685723 | Rotating Coupling Nut | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | 0.3M/TPU | C | 2 | A13 |
| **BIM-UNT-AP6X-0.3-RS4T** 46857260 | | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | 0.3M/TPU | D | 6 | A13 |
| **BIM-UNT-AN6X-0.3-RS4T** 4685792 | | 3-wire DC, NPN | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | 0.3M/TPU | D | 7 | A13 |
| **BIM-UNT-0.3-UNT-2AP6X3-H1141** 4685730 | Dual Switch | 4-wire DC, PNP | 10-30 VDC | 1000 | ≤ 150 | -25 to +70 | IP67 | PP | 0.3M/TPU | F | 8 | A13 |
| **BIM-UNT-AP6X/S991** 4685728 | Radial Magnetic Fields | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 150 | -25 to +70 | IP67 | PP | 2M/TPU | B | 4 | A13 |
| **BIM-UNT-2AP6X-0.2-RSC4.4T** 4685891 | Dual Switch | 4-wire DC, PNP | 10-30 VDC | 1000 | ≤ 150 | -25 to +70 | IP67 | PP | 0.2M/TPU | E | 8 | A13 |

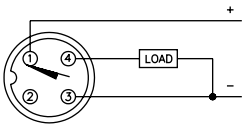
# Cylinder Position Sensors | BIM-UNTK

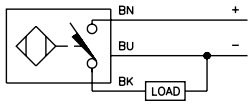
**T-groove Short Cylinder Style**

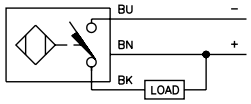
| Housing Style | Dimension Drawings |
|---|---|
|  | A   UNTK - Picofast Quick Disconnect |
| B   UNTK - Eurofast Quick Disconnect | C   UNTK - Potted-In Cable |

**Wiring Diagrams/Mating Cordsets**

1   Mating Cordset: PKG 3Z-*

2   Mating Cordset: RK 4T-*

3  

4  

**A13** — **3-wire DC - Magnetic (AN, RN, AP, RP)**

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Power-On Effect: | Per IEC 947-5-2 |
| Differential Travel (Hysteresis): | ≤1 mm | Reverse Polarity Protection: | Incorporated |
| Voltage Drop Across Conducting Sensor: | ≤1.8 V | Wire-Break Protection: | Incorporated |
| Trigger Current for Short Circuit Protection: | ≥220 mA on 200 mA Load Current | Transient Protection: | Per EN 60947-5-2 |
| | ≥170 mA on 150 mA Load Current | Temperature Drift: | ≤0.1 mm, ≤0.3 mm (UNR) |
| | ≥120 mA on 100 mA Load Current | Shock: | 30 g, 11 ms |
| Off-State (Leakage) Current: | ≤0.1 mA | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| No-Load Current: | ≤15 mA; | Repeatability: | ≥± 0.1 mm, ≥± 0.3 mm (UNR) |
| Pass Speed: | ≤10 ms; ≤3 ms (UNR) | | |

**A17** — **3-wire DC - Magnetic w/o Short Circuit Protection (AP7)**

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Reverse Polarity Protection: | Incorporated |
| Differential Travel (Hysteresis): | ≤1 mm | Wire-Break Protection: | Incorporated |
| Voltage Drop Across Conducting Sensor: | ≤1.4 V | Transient Protection: | Per EN 60947-5-2 |
| Short Circuit Protection: | No | Temperature Drift: | ≤0.3 mm |
| Off-State (Leakage) Current: | ≤0.1 mA | Shock: | 30 g, 11 ms |
| No-Load Current: | ≤10 mA; | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| Pass Speed: | ≤3 ms | Repeatability: | ≥± 0.3 mm |
| Power-On Effect: | Per IEC 947-5-2 | | |

**Additional Specifications**

**Magnetic Actuation Strength (Gauss):** 20-350

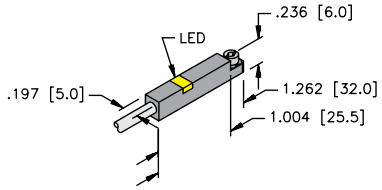
# Cylinder Position Sensors | BIM-UNTK

**T-groove Short Cylinder Style**

| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BIM-UNTK-AP7X-0.3-PSG3M** 4686011 | Short Body | 3-wire DC, PNP | 10-30 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | PP | 0.3M/TPU | A | 1 | A17 |
| **BIM-UNTK-AP7X-0.3-RS4T** 4686021 | Short Body | 3-wire DC, PNP | 10-30 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | PP | 0.3M/TPU | B | 2 | A17 |
| **BIM-UNTK-AP7X** 4686001 | Short Body | 3-wire DC, PNP | 10-30 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | PP | 2M TPU | C | 3 | A17 |
| **BIM-UNTK-AP6X** 4686005 | short Body | 3-wire DC, PNP | 10-30 VDC | 300 | ≤ 100 | -25 to +70 | IP68 | PP | 2M TPU | C | 3 | A13 |
| **BIM-UNTK-AN6X** 4686006 | Short Body | 3-wire DC, PNP | 10-30 VDC | 300 | ≤ 100 | -25 to +70 | IP69 | PP | 2M TPU | C | 4 | A13 |

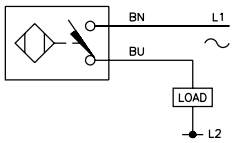
# Cylinder Position Sensors | BR-INT

**T-groove Cylinder Style or Universal Mount with Brackets**

| Housing Style | Dimension Drawings |
|---|---|
|  | A   INT - Picofast Potted-In Cable |

**Wiring Diagrams/Mating Cordsets**

1




**A3** — **2-wire Reed AC and DC (ADZ71)**

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Reverse Polarity Protection: | Yes |
| Differential Travel (Hysteresis): | ≤1 mm (Depends on magnet) | Shock: | 30 g, 11 ms |
| Maximum Switching Capacity: | ≤10 W | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| Off-State (Leakage) Current: | 0 mA | Repeatability: | ≥±0.1 mm (constant temperature & voltage) |
| Pass Speed: | ≤10 m/s | | |
| Power-On Effect: | Per IEC 947-5-2 | Temperature Drift: | ≤0.1 mm |
| Transient Protection: | Per EN 60947-5-2 | Voltage Drop: | ≤0.5 V |

**Additional Specifications**

**Magnetic Actuation Strength (Gauss):** 20-350

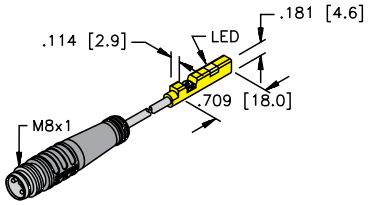
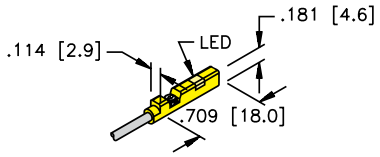
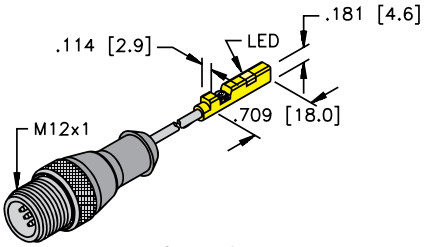
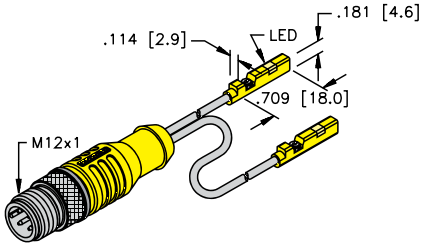
# Cylinder Position Sensors | BR-INT

**T-groove Cylinder Style or Universal Mount with Brackets**

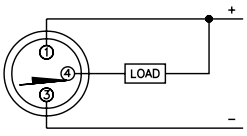
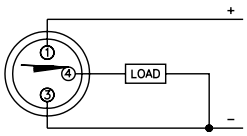
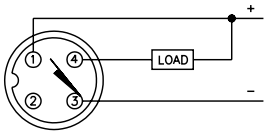
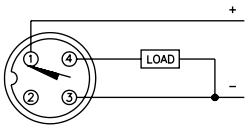
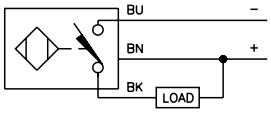
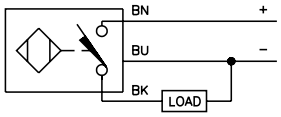
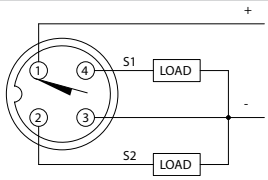
| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BR-INT-ADZ71X** 4700510 | Reed Contact | 2-wire AC/DC, Reed Contact | 3-140 VAC/4-200 VDC | 500 | ≤ 500 | -25 to +70 | IP67 | PA 12 | 2M/PVC | A | 1 | A3 |

# Cylinder Position Sensors | BIM-UNR

**C-groove Cylinder Style**

| Housing Style | Dimension Drawings | |
|---|---|---|
|  | A<br>  <br><br>UNR - Picofast Quick Disconnect | B<br>  <br><br>UNR - Potted-In Cable |
| C<br>  <br><br>UNR - Eurofast Quick Disconnect | D<br>  <br><br>UNR - Eurofast Quick Disconnect | |

**Wiring Diagrams/Mating Cordsets**

| | | | |
|---|---|---|---|
| 1<br>  <br><br>Mating Cordset: PKG 3Z-* | 2<br>  <br><br>Mating Cordset: PKG 3Z-* | 3<br>  <br><br>Mating Cordset: RK 4T-* | 4<br>  <br><br>Mating Cordset: RK 4T-* |
| 5<br>  <br> | 6<br>  <br> | 7<br>  <br><br>Mating Cordset: RKC 4.4T-* | |

**A13** — **3-wire DC - Magnetic (AN, RN, AP, RP)**

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Power-On Effect: | Per IEC 947-5-2 |
| Differential Travel (Hysteresis): | ≤1 mm | Reverse Polarity Protection: | Incorporated |
| Voltage Drop Across Conducting Sensor: | ≤1.8 V | Wire-Break Protection: | Incorporated |
| Trigger Current for Short Circuit Protection: | ≥220 mA on 200 mA Load Current | Transient Protection: | Per EN 60947-5-2 |
| | ≥170 mA on 150 mA Load Current | Temperature Drift: | ≤0.1 mm, ≤0.3 mm (UNR) |
| | ≥120 mA on 100 mA Load Current | Shock: | 30 g, 11 ms |
| Off-State (Leakage) Current: | ≤0.1 mA | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| No-Load Current: | ≤15 mA; | Repeatability: | ≥± 0.1 mm, ≥± 0.3 mm (UNR) |
| Pass Speed: | ≤10 ms; ≤3 ms (UNR) | | |

**Additional Specifications**

**Magnetic Actuation Strength (Gauss):** 20-350

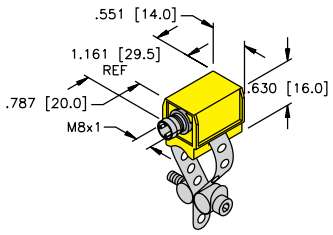
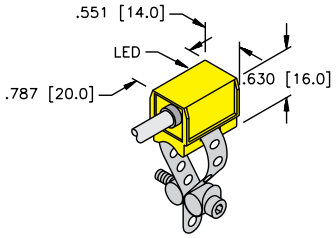
# Cylinder Position Sensors | BIM-UNR

## C-groove Cylinder Style

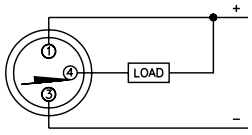
| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BIM-UNR-AN6X-0.3-PSG3S W/M** 4685848 | Fixed Coupling Nut | 3-wire DC, NPN | 10-30 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | PP | 0.3M/TPU | A | 1 | A13 |
| **BIM-UNR-AP6X-0.3-PSG3S W/M** 4685843 | Fixed Coupling Nut | 3-wire DC, PNP | 10-30 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | PP | 0.3M/TPU | A | 2 | A13 |
| **BIM-UNR-AN6X-0.3-RS4 W/M** 4685850 | | 3-wire DC, NPN | 10-30 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | PP | 0.3M/TPU | C | 3 | A13 |
| **BIM-UNR-AP6X-0.3-RS4 W/M** 4685845 | | 3-wire DC, PNP | 10-30 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | PP | 0.3M/TPU | C | 4 | A13 |
| **BIM-UNR-AN6X W/M** 4685847 | | 3-wire DC, NPN | 10-30 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | PP | 2M/TPU | B | 5 | A13 |
| **BIM-UNR-AP6X W/M** 4685842 | | 3-wire DC, PNP | 10-30 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | PP | 2M/TPU | B | 6 | A13 |
| **BIM-UNR-2AP6X-0.2-RSC4.4T** 4685899 | Dual Switch | 4-wire DC, PNP | 10-30 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | PP | 0.2M/TPU | D | 7 | A13 |

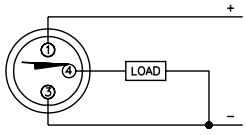
# Cylinder Position Sensors | BIM-PST

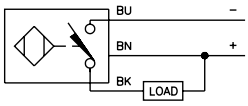
**Round Cylinder Style**

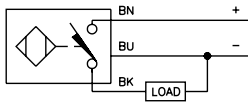
| Housing Style | Dimension Drawings | |
|---|---|---|
|  | A   PST - Picofast Quick Disconnect | B   PST - Potted-In Cable |

**Wiring Diagrams/Mating Cordsets**

1  
Mating Cordset: PKG 3Z-*

2  
Mating Cordset: PKG 3Z-*

3  

4  

**A13** — **3-wire DC - Magnetic (AN, RN, AP, RP)**

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Power-On Effect: | Per IEC 947-5-2 |
| Differential Travel (Hysteresis): | ≤1 mm | Reverse Polarity Protection: | Incorporated |
| Voltage Drop Across Conducting Sensor: | ≤1.8 V | Wire-Break Protection: | Incorporated |
| Trigger Current for Short Circuit Protection: | ≥220 mA on 200 mA Load Current | Transient Protection: | Per EN 60947-5-2 |
| | ≥170 mA on 150 mA Load Current | Temperature Drift: | ≤0.1 mm, ≤0.3 mm (UNR) |
| | ≥120 mA on 100 mA Load Current | Shock: | 30 g, 11 ms |
| Off-State (Leakage) Current: | ≤0.1 mA | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| No-Load Current: | ≤15 mA; | Repeatability: | ≥± 0.1 mm, ≥± 0.3 mm (UNR) |
| Pass Speed: | ≤10 ms; ≤3 ms (UNR) | | |

**Additional Specifications**

**Magnetic Actuation Strength (Gauss):** 20-350

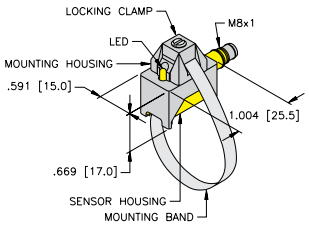
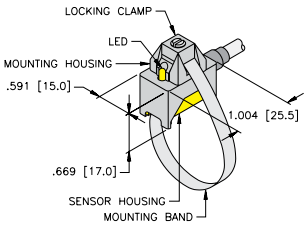
# Cylinder Position Sensors | BIM-PST

**Round Cylinder Style**

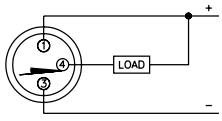
| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BIM-PST-AN6X-V1131 W/KLP-80** 4625190 | KLP-80 Included | 3-wire DC, NPN | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | -- | A | 1 | A13 |
| **BIM-PST-AP6X-V1131 W/KLP-80** 4625090 | KLP-80 Included | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | -- | A | 2 | A13 |
| **BIM-PST-AN6X W/KLP-80** 4624191 | KLP-80 Included | 3-wire DC, NPN | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | 2M/PVC | B | 3 | A13 |
| **BIM-PST-AP6X W/KLP-80** 4624090 | KLP-80 Included | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | 2M/PVC | B | 4 | A13 |

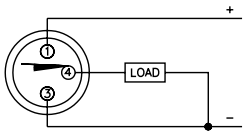
# Cylinder Position Sensors | BIM-KST

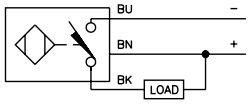
**Round Cylinder Style**

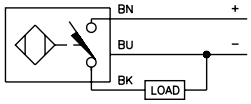
| Housing Style | Dimension Drawings | |
|---|---|---|
|  | A   KST - Picofast Quick Disconnect | B   KST - Potted-In Cable |

**Wiring Diagrams/Mating Cordsets**

1   Mating Cordset: PKG 3Z-*

2   Mating Cordset: PKG 3Z-*

3  

4  

**A13** — **3-wire DC - Magnetic (AN, RN, AP, RP)**

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Power-On Effect: | Per IEC 947-5-2 |
| Differential Travel (Hysteresis): | ≤1 mm | Reverse Polarity Protection: | Incorporated |
| Voltage Drop Across Conducting Sensor: | ≤1.8 V | Wire-Break Protection: | Incorporated |
| Trigger Current for Short Circuit Protection: | ≥220 mA on 200 mA Load Current | Transient Protection: | Per EN 60947-5-2 |
| | ≥170 mA on 150 mA Load Current | Temperature Drift: | ≤0.1 mm, ≤0.3 mm (UNR) |
| | ≥120 mA on 100 mA Load Current | Shock: | 30 g, 11 ms |
| Off-State (Leakage) Current: | ≤0.1 mA | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| No-Load Current: | ≤15 mA; | Repeatability: | ≥± 0.1 mm, ≥± 0.3 mm (UNR) |
| Pass Speed: | ≤10 ms; ≤3 ms (UNR) | | |

**Additional Specifications**

**Magnetic Actuation Strength (Gauss):** 20-350

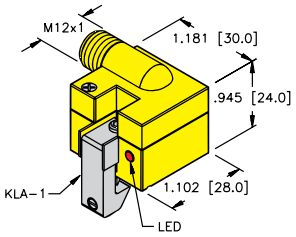
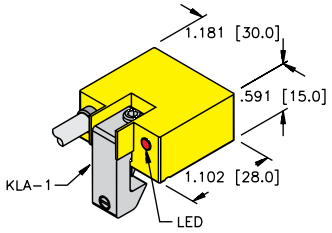
# Cylinder Position Sensors | BIM-KST

**Round Cylinder Style**

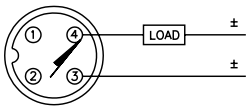
| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BIM-KST-AN6X-V1131** 46743 | KST SB170 and KST SB335 Straps Included | 3-wire DC, NPN | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | -- | A | 1 | A13 |
| **BIM-KST-AP6X-V1131** 46742 | KST SB170 and KST SB335 Straps Included | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | -- | A | 2 | A13 |
| **BIM-KST-AN6X** 46741 | KST SB170 and KST SB335 Straps Included | 3-wire DC, NPN | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | 2M/ PVC | B | 3 | A13 |
| **BIM-KST-AP6X** 46740 | KST SB170 and KST SB335 Straps Included | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | 2M/ PVC | B | 4 | A13 |

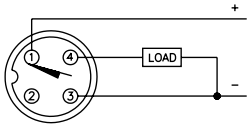
# Cylinder Position Sensors | BIM-AKT

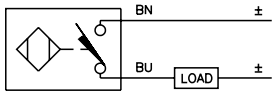
**Tie-rod Cylinder Style**

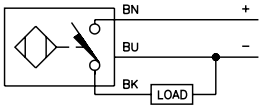
| Housing Style | Dimension Drawings | |
|---|---|---|
|  | A   AKT - Eurofast Connector | B   AKT - Potted-In Cable |

**Wiring Diagrams/Mating Cordsets**

1  
Mating Cordset: RK 4.2T-*

2  
Mating Cordset: RK 4T-*

3  

4  

**A13 — 3-wire DC - Magnetic (AN, RN, AP, RP)**

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Power-On Effect: | Per IEC 947-5-2 |
| Differential Travel (Hysteresis): | ≤1 mm | Reverse Polarity Protection: | Incorporated |
| Voltage Drop Across Conducting Sensor: | ≤1.8 V | Wire-Break Protection: | Incorporated |
| Trigger Current for Short Circuit Protection: | ≥220 mA on 200 mA Load Current | Transient Protection: | Per EN 60947-5-2 |
| | ≥170 mA on 150 mA Load Current | Temperature Drift: | ≤0.1 mm, ≤0.3 mm (UNR) |
| | ≥120 mA on 100 mA Load Current | Shock: | 30 g, 11 ms |
| Off-State (Leakage) Current: | ≤0.1 mA | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| No-Load Current: | ≤15 mA; | Repeatability: | ≥± 0.1 mm, ≥± 0.3 mm (UNR) |
| Pass Speed: | ≤10 ms; ≤3 ms (UNR) | | |

**A14 — 2-wire DC - Magnetic (AD, AG)**

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Off-State (Leakage) Current: | ≤0.8 mA |
| Differential Travel (Hysteresis): | ≤1 mm | Power-On Effect: | Per IEC 947-5-2 |
| Voltage Drop Across Conducting Sensor: | Non-Polarized (AD) ≤4 V | Transient Protection: | Per EN 60947-5-2 |
| | Polarized (AG) ≤3.5 V | Shock: | 30 g, 11 ms |
| Trigger Current for Short Circuit Protection: | ≥120 mA | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| Pass Speed: | ≤3 ms, ≤10 ms (UNT) | Repeatability: | ≥± 0.1 mm |

**Additional Specifications**

**Magnetic Actuation Strength (Gauss):** 20-350

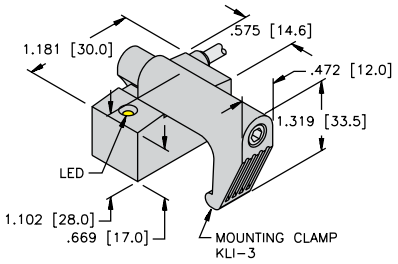
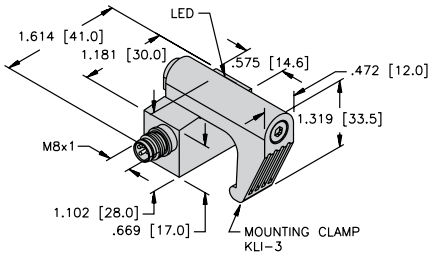
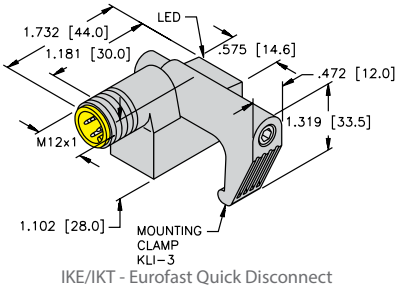
# Cylinder Position Sensors | BIM-AKT

**Tie-rod Cylinder Style**

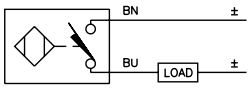
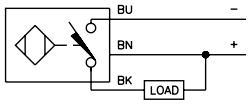
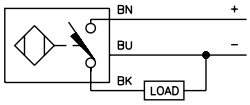
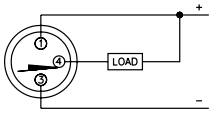
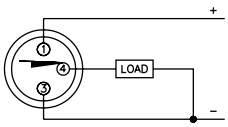
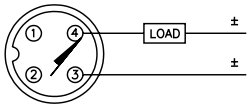
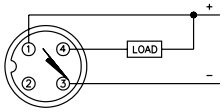
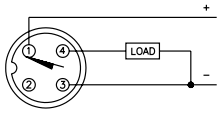
| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BIM-AKT-AD4X-H1141 W/KLA-1** 4480290 | KLA-1 Included | 2-wire DC | 10-65 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | PA 12 | -- | A | 1 | A14 |
| **BIM-AKT-AP6X-H1141 W/KLA-1** 4675290 | KLA-1 Included | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | -- | A | 2 | A13 |
| **BIM-AKT-AD4X W/KLA-1** 4480090 | KLA-1 Included | 2-wire DC | 10-65 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | PA 12 | 2M/PVC | B | 3 | A14 |
| **BIM-AKT-AP6X W/KLA-1** 4675090 | KLA-1 Included | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | 2M/PVC | B | 4 | A13 |

# Cylinder Position Sensors | BIM-IKE/IKT

**Tie-rod Cylinder Style**

| Housing Style | Dimension Drawings |
|---|---|
|  | A   IKE/IKT - Potted-In Cable |
| B   IKE/IKT - Picofast Quick Disconnect | C   IKE/IKT - Eurofast Quick Disconnect |

**Wiring Diagrams/Mating Cordsets**

| | | | |
|---|---|---|---|
| 1   | 2   | 3   | 4   Mating Cordset: PKG 3Z-* |
| 5   Mating Cordset: PKG 3Z-* | 6   Mating Cordset: RK 4.2T-* | 7   Mating Cordset: RK 4T-* | 8   Mating Cordset: RK 4T-* |

**A13** — **3-wire DC - Magnetic (AN, RN, AP, RP)**

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Power-On Effect: | Per IEC 947-5-2 |
| Differential Travel (Hysteresis): | ≤1 mm | Reverse Polarity Protection: | Incorporated |
| Voltage Drop Across Conducting Sensor: | ≤1.8 V | Wire-Break Protection: | Incorporated |
| Trigger Current for Short Circuit Protection: | ≥220 mA on 200 mA Load Current | Transient Protection: | Per EN 60947-5-2 |
| | ≥170 mA on 150 mA Load Current | Temperature Drift: | ≤0.1 mm, ≤0.3 mm (UNR) |
| | ≥120 mA on 100 mA Load Current | Shock: | 30 g, 11 ms |
| Off-State (Leakage) Current: | ≤0.1 mA | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| No-Load Current: | ≤15 mA; | Repeatability: | ≥± 0.1 mm, ≥± 0.3 mm (UNR) |
| Pass Speed: | ≤10 ms; ≤3 ms (UNR) | | |

**A14** — **2-wire DC - Magnetic (AD, AG)**

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Off-State (Leakage) Current: | ≤0.8 mA |
| Differential Travel (Hysteresis): | ≤1 mm | Power-On Effect: | Per IEC 947-5-2 |
| Voltage Drop Across Conducting Sensor: | Non-Polarized (AD) ≤4 V | Transient Protection: | Per EN 60947-5-2 |
| | Polarized (AG) ≤3.5 V | Shock: | 30 g, 11 ms |
| Trigger Current for Short Circuit Protection: | ≥120 mA | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| Pass Speed: | ≤3 ms, ≤10 ms (UNT) | Repeatability: | ≥± 0.1 mm |

**Additional Specifications**

**Magnetic Actuation Strength (Gauss):** 20-350

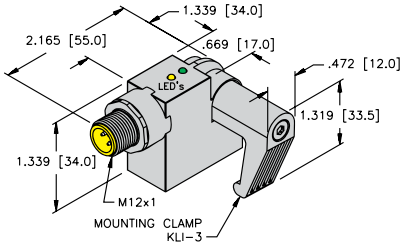
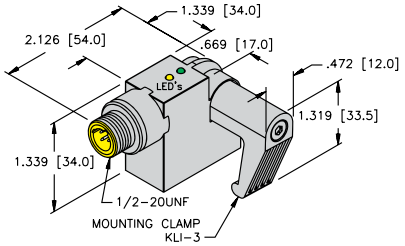
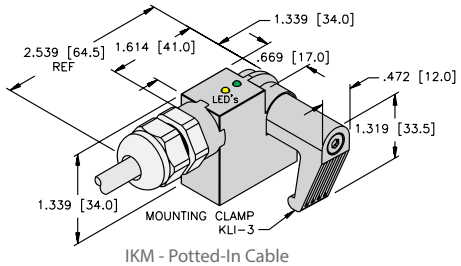
# Cylinder Position Sensors | BIM-IKE/IKT

**Tie-rod Cylinder Style**

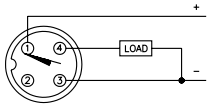
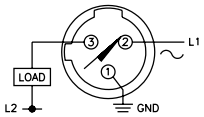
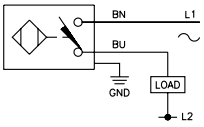
| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BIM-IKE-AD4X W/KLI-3** 4421490 | KLI-3 Included | 2-wire DC | 10-65 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | Zinc | 2M/PVC | A | 1 | A14 |
| **BIM-IKT-AD4X W/KLI-3** 4482090 | KLI-3 Included | 2-wire DC | 10-65 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | Zinc | 2M/PVC | A | 1 | A14 |
| **BIM-IKE-AN6X W/KLI-3** 4621590 | KLI-3 Included | 3-wire DC, NPN | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | 2M/PVC | A | 2 | A13 |
| **BIM-IKT-AN6X W/KLI-3** 4620190 | KLI-3 Included | 3-wire DC, NPN | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | 2M/PVC | A | 2 | A13 |
| **BIM-IKE-AP6X W/KLI-3** 4621490 | KLI-3 Included | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | 2M/PVC | A | 3 | A13 |
| **BIM-IKT-AP6X W/KLI-3** 4620090 | KLI-3 Included | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | 2M/PVC | A | 3 | A13 |
| **BIM-IKE-AN6X-V1131 W/KLI-3** 4621795 | KLI-3 Included | 3-wire DC, NPN | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | -- | B | 4 | A13 |
| **BIM-IKT-AN6X-V1131 W/KLI-3** 4622195 | KLI-3 Included | 3-wire DC, NPN | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | -- | B | 4 | A13 |
| **BIM-IKE-AP6X-V1131 W/KLI-3** 4621695 | KLI-3 Included | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | -- | B | 5 | A13 |
| **BIM-IKT-AP6X-V1131 W/KLI-3** 4622095 | KLI-3 Included | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | -- | B | 5 | A13 |
| **BIM-IKE-AD4X-H1141 W/KLI-3** 4421690 | KLI-3 Included | 2-wire DC | 10-65 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | Zinc | -- | C | 6 | A14 |
| **BIM-IKT-AD4X-H1141 W/KLI-3** 4482290 | KLI-3 Included | 2-wire DC | 10-65 VDC | 300 | ≤ 100 | -25 to +70 | IP67 | Zinc | -- | C | 6 | A14 |
| **BIM-IKE-AN6X-H1141 W/KLI-3** 4621790 | KLI-3 Included | 3-wire DC, NPN | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | -- | C | 7 | A13 |
| **BIM-IKT-AN6X-H1141 W/KLI-3** 4621190 | KLI-3 Included | 3-wire DC, NPN | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | -- | C | 7 | A13 |
| **BIM-IKE-AP6X-H1141 W/KLI-3** 4621690 | KLI-3 Included | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | -- | C | 8 | A13 |
| **BIM-IKT-AP6X-H1141 W/KLI-3** 4621090 | KLI-3 Included | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | Zinc | -- | C | 8 | A13 |


# Cylinder Position Sensors | BIM-IKM

**Tie-rod Cylinder Style**

| Housing Style | Dimension Drawings |
|---|---|
|  | A   IKM - Eurofast Connector |
| B   IKM - Microfast® Connector | C   IKM - Potted-In Cable |

**Wiring Diagrams/Mating Cordsets**

| 1 | 2 | 3 |
|---|---|---|
|   Mating Cordset: RK 4T-* |   Mating Cordset: KB 3T-* |   |

**A13** — **3-wire DC - Magnetic (AN, RN, AP, RP)**

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Power-On Effect: | Per IEC 947-5-2 |
| Differential Travel (Hysteresis): | ≤1 mm | Reverse Polarity Protection: | Incorporated |
| Voltage Drop Across Conducting Sensor: | ≤1.8 V | Wire-Break Protection: | Incorporated |
| Trigger Current for Short Circuit Protection: | ≥220 mA on 200 mA Load Current | Transient Protection: | Per EN 60947-5-2 |
| | ≥170 mA on 150 mA Load Current | Temperature Drift: | ≤0.1 mm, ≤0.3 mm (UNR) |
| | ≥120 mA on 100 mA Load Current | Shock: | 30 g, 11 ms |
| Off-State (Leakage) Current: | ≤0.1 mA | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| No-Load Current: | ≤15 mA; | Repeatability: | ≥± 0.1 mm, ≥± 0.3 mm (UNR) |
| Pass Speed: | ≤10 ms; ≤3 ms (UNR) | | |

**A15** — **2-wire AC w/o Short-Circuit Protection - Magnetic (AZ)**

| | | | |
|---|---|---|---|
| Line Frequency: | ≥50... ≤60 Hz | Pass Speed: | ≤1 ms |
| Differential Travel (Hysteresis): | ≤1 mm | Power-On Effect: | Per IEC 947-5-2 |
| Voltage Drop Across Conducting Sensor: | ≤6.0 V | Transient Protection: | Per EN 60947-5-2 |
| Continuous Load Current: | AC: ≤500 mA | Shock: | 30 g, 11 ms |
| Off-State (Leakage) Current: | ≤1.7 mA | Vibration: | 55 Hz, 1 mm Amplitude, in all 3 Planes |
| Minimum Load Current: | ≥5.0 mA | Repeatability: | ≥± 0.1 mm |

**Additional Specifications**

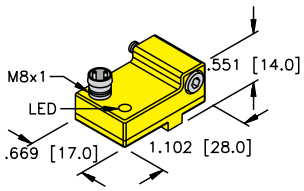
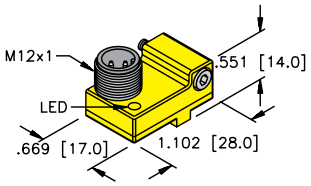
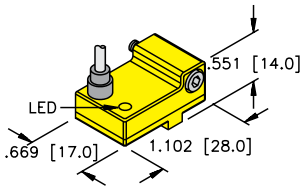
**Magnetic Actuation Strength (Gauss):** 20-350

# Cylinder Position Sensors | BIM-IKM

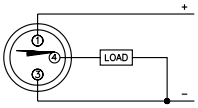
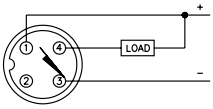
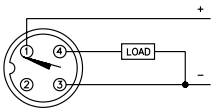
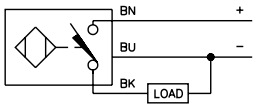
**Tie-rod Cylinder Style**

| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BIM-IKM-AP6X2-H1141/S34W/KLI-3** 4627290 | KLI-3 Included, WFI | 3-wire DC, PNP | 10-30 VDC | 20 | ≤ 200 | -25 to +70 | IP67 | Zinc | -- | A | 1 | A13 |
| **BIM-IKM-AZ3X2-B3131 W/KLI-3** 1347190 | KLI-3 Included | 2-wire AC | 20-250 VAC | 20 | ≤ 500 | -25 to +70 | IP67 | Zinc | -- | B | 2 | A15 |
| **BIM-IKM-AZ3X2 W/KLI-3** 1347290 | KLI-3 Included | 2-wire AC | 20-250 VAC | 20 | ≤ 500 | -25 to +70 | IP67 | Zinc | 2M/PVC | C | 3 | A15 |

**T-groove or Slot Style**

| Housing Style | Dimension Drawings |
|---|---|
|  | A   NST - Picofast Connector |
| B   NST - Picofast Connector | C   NST - Potted-In Cable |

**Wiring Diagrams/Mating Cordsets**

| 1 | 2 | 3 | 4 |
|---|---|---|---|
|   |   |   |   |
| Mating Cordset: PKG 3Z-* | Mating Cordset: RK 4T-* | Mating Cordset: RK 4T-* | |

**A13** — **3-wire DC - Magnetic (AN, RN, AP, RP)**

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Power-On Effect: | Per IEC 947-5-2 |
| Differential Travel (Hysteresis): | ≤1 mm | Reverse Polarity Protection: | Incorporated |
| Voltage Drop Across Conducting Sensor: | ≤1.8 V | Wire-Break Protection: | Incorporated |
| Trigger Current for Short Circuit Protection: | ≥220 mA on 200 mA Load Current | Transient Protection: | Per EN 60947-5-2 |
| | ≥170 mA on 150 mA Load Current | Temperature Drift: | ≤0.1 mm, ≤0.3 mm (UNR) |
| | ≥120 mA on 100 mA Load Current | Shock: | 30 g, 11 ms |
| Off-State (Leakage) Current: | ≤0.1 mA | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| No-Load Current: | ≤15 mA; | Repeatability: | ≥± 0.1 mm, ≥± 0.3 mm (UNR) |
| Pass Speed: | ≤10 ms; ≤3 ms (UNR) | | |

**Additional Specifications**

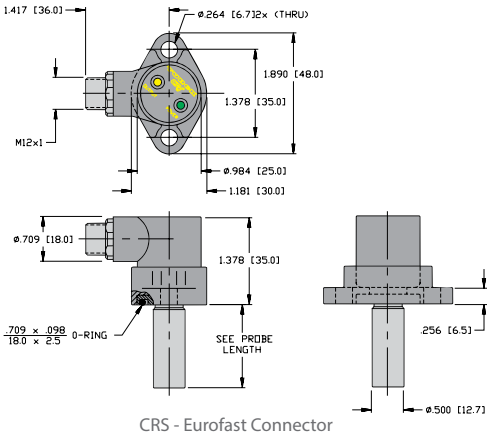
**Magnetic Actuation Strength (Gauss):** 20-350

# Cylinder Position Sensors | BIM-NST

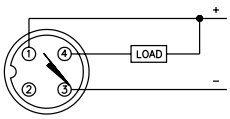
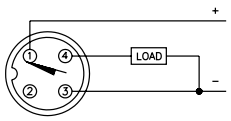
**T-groove or Slot Style**

| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BIM-NST-AP6X-V1131** 4685800 | w/o Bracket | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | -- | A | 1 | A13 |
| **BIM-NST-AN6X-H1141** 4685500 | w/o Bracket | 3-wire DC, NPN | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | -- | B | 2 | A13 |
| **BIM-NST-AP6X-H1141/S34** 4685401 | w/o Bracket, WFI | 3-wire DC, PNP | 10-30 VDC | 20 | ≤ 200 | -25 to +70 | IP67 | PA 12 | -- | B | 3 | A13 |
| **BIM-NST-AP6X-H1141** 4685400 | w/o Bracket | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | -- | B | 3 | A13 |
| **BIM-NST-AP6X** 4685600 | w/o Bracket | 3-wire DC, PNP | 10-30 VDC | 1000 | ≤ 200 | -25 to +70 | IP67 | PA 12 | 2M/PVC | C | 4 | A13 |

## In-Cylinder Position Sensors

| Housing Style | Dimension Drawings |
|---|---|
|  | A   CRS - Eurofast Connector |

### Wiring Diagrams/Mating Cordsets

| 1 | 2 |
|---|---|
|   Mating Cordset: RK 4T-* |   Mating Cordset: RK 4T-* |

### A4 — 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Time Delay Before Availability: | ≤8 ms |
| Differential Travel (Hysteresis): | 3-15% (5% typical) | Power-On Effect: | Per IEC 947-5-2 |
| Voltage Drop Across Conducting Sensor: | ≤1.8 V | Reverse Polarity Protection: | Incorporated |
| Trigger Current for Short Circuit Protection: | ≥220 mA on 200 mA Load Current | Wire-Break Protection: | Incorporated |
| | ≥170 mA on 150 mA Load Current | Transient Protection: | Per EN 60947-5-2 |
| | ≥120 mA on 100 mA Load Current | Temperature Drift: | ≤±10% |
| Off-State (Leakage) Current: | ≤0.1 mA | Shock: | 30 g, 11 ms |
| No-Load Current: | ≤15 mA (Ferrite, Uprox) | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| | ≤20 mA (Uprox+, Uprox 3) | Repeatability: | ≤2% of Rated Operating Distance |

# Cylinder Position Sensors | CRS

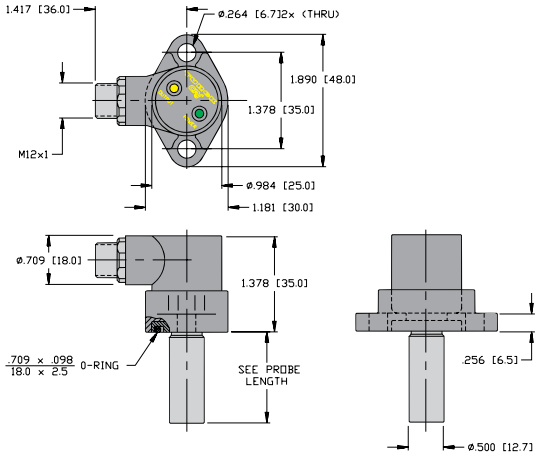
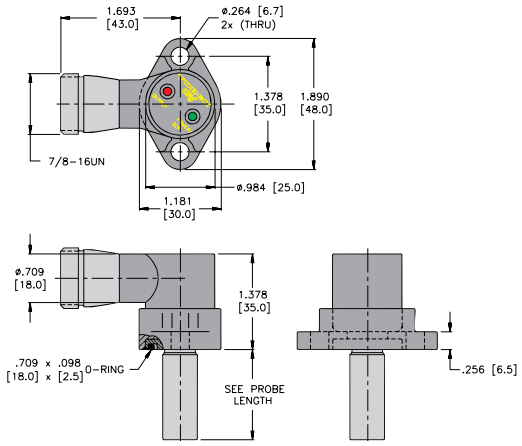
## In-Cylinder Position Sensors

| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bi2-CRS260-AN4X2-H1141/S34** 4580004 | WFI; 1,500 PSI Operating | 3-wire DC, NPN | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 1 | A4 |
| **Bi2-CRS317-AN4X2-H1141/S34** 4580093 | WFI; 1,500 PSI Operating | 3-wire DC, NPN | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 1 | A4 |
| **Bi2-CRS343-AN4X2-H1141/S34** 4571890 | WFI; 1,500 PSI Operating | 3-wire DC, NPN | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 1 | A4 |
| **Bi2-CRS524-AN4X2-H1141/S34** 4568096 | WFI; 1,500 PSI Operating | 3-wire DC, NPN | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 1 | A4 |
| **Bi2-CRS232-AP4X2-H1141/S34** 4570492 | WFI; 1,500 PSI Operating | 3-wire DC, PNP | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 2 | A4 |
| **Bi2-CRS260-AP4X2-H1141/S34** 4570890 | WFI; 1,500 PSI Operating | 3-wire DC, PNP | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 2 | A4 |
| **Bi2-CRS287-AP4X2-H1141/S34** 4571290 | WFI; 1,500 PSI Operating | 3-wire DC, PNP | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 2 | A4 |
| **Bi2-CRS317-AP4X2-H1141/S34** 4571690 | WFI; 1,500 PSI Operating | 3-wire DC, PNP | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 2 | A4 |
| **Bi2-CRS343-AP4X2-H1141/S34** 4571800 | WFI; 1,500 PSI Operating | 3-wire DC, PNP | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 2 | A4 |
| **Bi2-CRS476-AP4X2-H1141/S34** 4580091 | WFI; 1,500 PSI Operating | 3-wire DC, PNP | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 2 | A4 |
| **Bi2-CRS524-AP4X2-H1141/S34** 4580090 | WFI; 1,500 PSI Operating | 3-wire DC, PNP | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 2 | A4 |
| **Bi2-CRS603-AP4X2-H1141/S34** 4580096 | WFI; 1,500 PSI Operating | 3-wire DC, PNP | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 2 | A4 |
| **Bi2-CRS705-AP4X2-H1141/S34** 4580089 | WFI; 1,500 PSI Operating | 3-wire DC, PNP | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 2 | A4 |
| **Bi2-CRS730-AP4X2-H1141/S34** 4580003 | WFI; 1,500 PSI Operating | 3-wire DC, PNP | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 2 | A4 |
| **Bi2-CRS959-AP4X2-H1141/S34** 4571891 | WFI; 1,500 PSI Operating | 3-wire DC, PNP | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 2 | A4 |
| **Bi2-CRS1159-AP4X2-H1141/S34** 4570899 | WFI; 1,500 PSI Operating | 3-wire DC, PNP | 10-65 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 2 | A4 |
| **Bi1.5-CRS524C-AP6X2-H1141** 4279091 | High Pressure; 3,000 PSI Operating | 3-wire DC, PNP | 10-30 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 2 | A4 |
| **Bi1.5-CRS260C-AP6X2-H1141** 4279092 | High Pressure; 3,000 PSI Operating | 3-wire DC, PNP | 10-30 VDC | 30 | ≤ 200 | -25 to +70 | IP67 | Zinc | A | 2 | A4 |

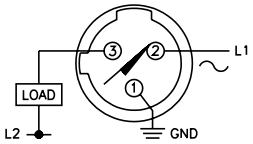
Bi *-CRS-XXXX-.. = Length of probe in mm. Example: CRS260 = 26.0 mm

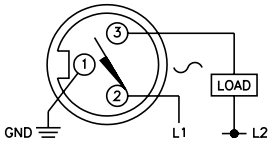
# Cylinder Position Sensors | CRS

## In-Cylinder Position Sensors

| Housing Style | Dimension Drawings |
|---|---|
|  | A   CRS - Microfast Connector |
| B   CRS - Minifast® Connector | |

### Wiring Diagrams/Mating Cordsets

1   Mating Cordset: KB 3T-*

2   Mating Cordset: RKM 311-*M

### A5 — 2-wire AC/DC w/ Short-Circuit Protection - (ADZ, RDZ, FDZ, VDZ)

| | | | |
|---|---|---|---|
| Line Frequency: | ≥50... ≤60 Hz | Minimum Load Current: | ≥3.0 mA |
| Differential Travel (Hysteresis): | 3-15% (5% typical) | Inrush Current: | ≤3 A (≤20 ms, max 5 Hz) |
| Voltage Drop Across Conducting Sensor: | ≤6.0 V | Power-On Effect: | Per IEC 947-5-2 |
| Trigger Current for Short Circuit Protection: | AC: ≥440 mA; DC: ≥330 mA | Transient Protection: | Per EN 60947-5-2 |
| | AC: ≥120 mA; DC: ≥120 mA | Shock: | 30 g, 11 ms |
| Continuous Load Current: | AC: ≤400 mA; DC: ≤300 mA | Vibration: | 55 Hz, 1 mm Amplitude, in all 3 Planes |
| | AC: ≤100 mA; DC: ≤100 mA | Repeatability: | ≤2% of Rated Operating Distance |
| Off-State (Leakage) Current: | ≤1.7 mA (AC) | | |
| | ≤1.5 mA (DC) | | |

# Cylinder Position Sensors | CRS

## In-Cylinder Position Sensors

| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Bi2-CRS232-ADZ30X2-B3131/S34** 4275093 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | A | 1 | A5 |
| **Bi2-CRS260-ADZ30X2-B3131/S34** 4275493 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | A | 1 | A5 |
| **Bi2-CRS317-ADZ30X2-B3131/S34** 4276293 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | A | 1 | A5 |
| **Bi2-CRS476-ADZ30X2-B3131/S34** 4276693 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | A | 1 | A5 |
| **Bi2-CRS524-ADZ30X2-B3131/S34** 4277093 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | A | 1 | A5 |
| **Bi2-CRS730-ADZ30X2-B3131/S34** 4278293 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | A | 1 | A5 |
| **Bi2-CRS959-ADZ30X2-B3131/S34** 4279093 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | A | 1 | A5 |
| **Bi2-CRS1159-ADZ30X2-B3131/S34** 4279493 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | A | 1 | A5 |
| **Bi2-CRS232-ADZ30X2-B1131/S34** 4270093 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi2-CRS260-ADZ30X2-B1131/S34** 4270493 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi2-CRS317-ADZ30X2-B1131/S34** 4271293 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi2-CRS343-ADZ30X2-B1131/S34** 4271493 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi2-CRS476-ADZ30X2-B1131/S34** 4271693 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi2-CRS524-ADZ30X2-B1131/S34** 4272093 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi2-CRS603-ADZ30X2-B1131/S34** 4272493 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi2-CRS705-ADZ30X2-B1131/S34** 4272893 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi2-CRS730-ADZ30X2-B1131/S34** 4273293 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi2-CRS959-ADZ30X2-B1131/S34** 4274093 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi2-CRS1159-ADZ30X2-B1131/S34** 4274493 | WFI; 1,500 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi1.5-CRS959C-ADZ30X2-B1131** 4279094 | High Pressure; 3,000 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi1.5-CRS730C-ADZ30X2-B1131** 4279095 | High Pressure; 3,000 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi1.5-CRS260C-ADZ30X2-B1131** 4279096 | High Pressure; 3,000 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi1.5-CRS232C-ADZ30X2-B1131** 4279097 | High Pressure; 3,000 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi1.5-CRS524C-ADZ30X2-B1131** 4279098 | High Pressure; 3,000 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |
| **Bi1.5-CRS317C-ADZ30X2-B1131** 4279099 | High Pressure; 3,000 PSI Operating | 2-wire AC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 400/300 | -25 to +70 | IP67 | Zinc | B | 2 | A5 |

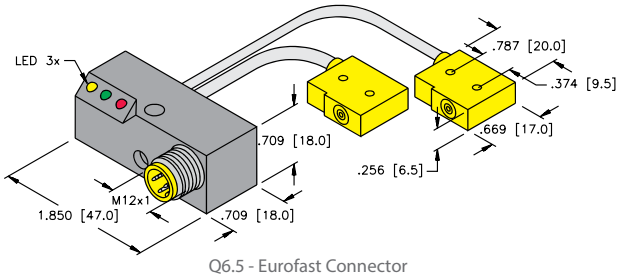
Bi *-CRS-XXXX-.. = Length of probe in mm. Example: CRS260 = 26.0 mm

# Cylinder Position Sensors | Q6.5

## Power Clamp Position Sensors

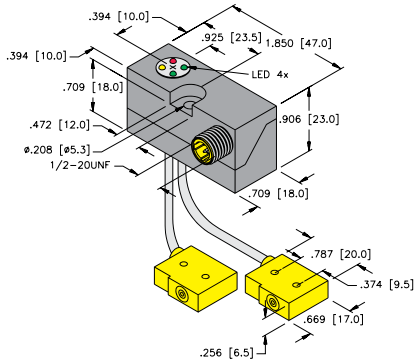
| Housing Style | Dimension Drawings |
|---|---|

A



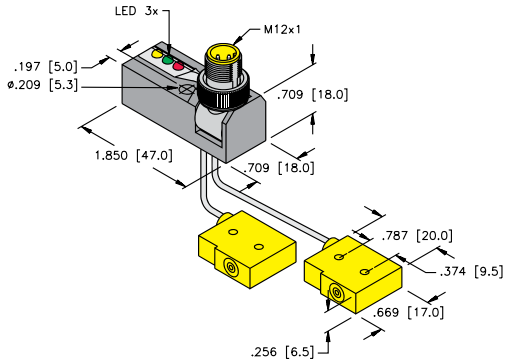

Q6.5 - Eurofast Connector

B




Q6.5 - Microfast Connector

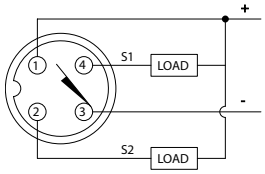
C




Q6.5 - Eurofast Connector

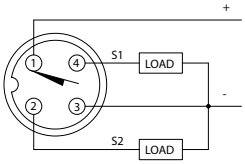
### Wiring Diagrams/Mating Cordsets

1



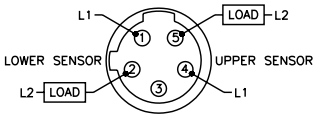

Mating Cordset: RK 4.4T-*

2




Mating Cordset: RK 4.4T-*

3




Mating Cordset: KB 5T-*

### A4 — 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Time Delay Before Availability: | ≤8 ms |
| Differential Travel (Hysteresis): | 3-15% (5% typical) | Power-On Effect: | Per IEC 947-5-2 |
| Voltage Drop Across Conducting Sensor: | ≤1.8 V | Reverse Polarity Protection: | Incorporated |
| Trigger Current for Short Circuit Protection: | ≥220 mA on 200 mA Load Current | Wire-Break Protection: | Incorporated |
| | ≥170 mA on 150 mA Load Current | Transient Protection: | Per EN 60947-5-2 |
| | ≥120 mA on 100 mA Load Current | Temperature Drift: | ≤±10% |
| Off-State (Leakage) Current: | ≤0.1 mA | Shock: | 30 g, 11 ms |
| No-Load Current: | ≤15 mA (Ferrite, Uprox) | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| | ≤20 mA (Uprox+, Uprox 3) | Repeatability: | ≤2% of Rated Operating Distance |

### A5 — 2-wire AC/DC w/ Short-Circuit Protection - (ADZ, RDZ, FDZ, VDZ)

| | | | |
|---|---|---|---|
| Line Frequency: | ≥50... ≤60 Hz | Minimum Load Current: | ≥3.0 mA |
| Differential Travel (Hysteresis): | 3-15% (5% typical) | Inrush Current: | ≤3 A (≤20 ms, max 5 Hz) |
| Voltage Drop Across Conducting Sensor: | ≤6.0 V | Power-On Effect: | Per IEC 947-5-2 |
| Trigger Current for Short Circuit Protection: | AC: ≥440 mA; DC: ≥330 mA | Transient Protection: | Per EN 60947-5-2 |
| | AC: ≥120 mA; DC: ≥120 mA | Shock: | 30 g, 11 ms |
| Continuous Load Current: | AC: ≤400 mA; DC: ≤300 mA | Vibration: | 55 Hz, 1 mm Amplitude, in all 3 Planes |
| | AC: ≤100 mA; DC: ≤100 mA | Repeatability: | ≤2% of Rated Operating Distance |
| Off-State (Leakage) Current: | ≤1.7 mA (AC) | | |
| | ≤1.5 mA (DC) | | |

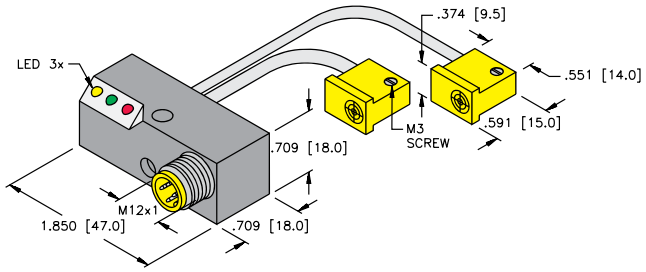
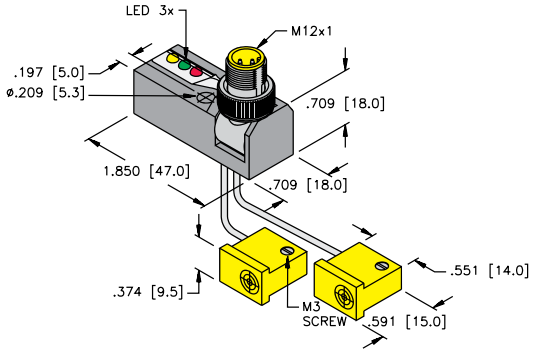
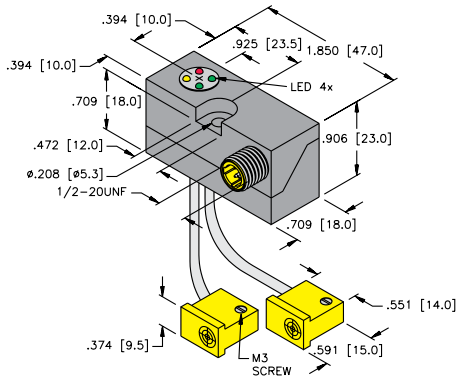
# Cylinder Position Sensors | Q6.5

## Power Clamp Position Sensors

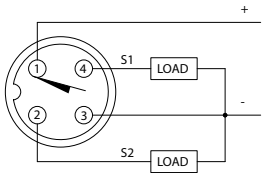
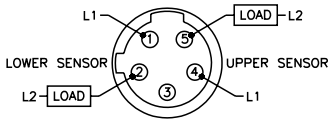
| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ni2-Q6.5-AN6-0.1-FS4.4X3/S304** 1650079 | | 4-wire DC, NPN | 10-30 VDC | 30 | ≤ 500 | -25 to +70 | IP67 | PBT | 0.1M/TPU | A | 1 | A4 |
| **Ni2-Q6.5-AN6-0.16-FS4.4X3/S304** 1650085 | | 4-wire DC, NPN | 10-30 VDC | 30 | ≤ 150 | -25 to +70 | IP67 | PBT | 0.16M/TPU | A | 1 | A4 |
| **Ni2-Q6.5-AP6-0.1-FS4.4X3/S304** 1650048 | | 4-wire DC, PNP | 10-30 VDC | 30 | ≤ 150 | -25 to +70 | IP67 | PBT | 0.1M/TPU | A | 2 | A4 |
| **Ni2-Q6.5-AP6-0.16-FS4.4X3/S304** 1650086 | | 4-wire DC, PNP | 10-30 VDC | 30 | ≤ 150 | -25 to +70 | IP67 | PBT | 0.16M/TPU | A | 2 | A4 |
| **Ni2-Q6.5-AP6-0.2-FS4.4X3/S304** 1650047 | | 4-wire DC, PNP | 10-30 VDC | 30 | ≤ 150 | -25 to +70 | IP67 | PBT | 0.2M/TPU | A | 2 | A4 |
| **Ni2-Q6.5-0.1-BDS-2AP6X3-H1141/S34** 1650098 | WFI | 4-wire DC, PNP | 10-30 VDC | 30 | ≤ 150 | -25 to +70 | IP67 | PBT | 0.1M/TPU | C | 2 | A4 |
| **Ni2-Q6.5-0.16-BDS-2AP6X3-H1141/S34** 1650110 | WFI | 4-wire DC, PNP | 10-30 VDC | 30 | ≤ 150 | -25 to +70 | IP67 | PBT | 0.16M/TPU | C | 2 | A4 |
| **Ni2-Q6.5-ADZ32-0.1-FSB5.4X4/S304** 4200204 | | 4-wire, VAC/DC | 20-250 VAC/10-300 VDC | 30 | ≤ 100 | -25 to +70 | IP67 | PBT | 0.1M/TPU | B | 3 | A5 |
| **Ni2-Q6.5-ADZ32-0.16-FS 5.4X4/S304** 4200203 | | 4-wire, VAC/DC | 20-250 VAC/10-300 VDC | 30 | ≤ 100 | -25 to +70 | IP67 | PBT | 0.16M/TPU | B | 3 | A5 |

# Cylinder Position Sensors | Q9.5

**Power Clamp Position Sensors**

| Housing Style | Dimension Drawings |
|---|---|
|  | A<br>  <br><br>Q9.5 - Eurofast Connector |
| B<br>  <br><br>Q9.5 - Eurofast Connector | C<br>  <br><br>Q9.5 - Microfast Connector |

**Wiring Diagrams/Mating Cordsets**

| 1 | 2 |
|---|---|
|  <br><br>Mating Cordset: RK 4.4T-* |  <br><br>Mating Cordset: KB 5T-* |

**A4** — **3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)**

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Time Delay Before Availability: | ≤8 ms |
| Differential Travel (Hysteresis): | 3-15% (5% typical) | Power-On Effect: | Per IEC 947-5-2 |
| Voltage Drop Across Conducting Sensor: | ≤1.8 V | Reverse Polarity Protection: | Incorporated |
| Trigger Current for Short Circuit Protection: | ≥220 mA on 200 mA Load Current | Wire-Break Protection: | Incorporated |
| | ≥170 mA on 150 mA Load Current | Transient Protection: | Per EN 60947-5-2 |
| | ≥120 mA on 100 mA Load Current | Temperature Drift: | ≤±10% |
| Off-State (Leakage) Current: | ≤0.1 mA | Shock: | 30 g, 11 ms |
| No-Load Current: | ≤15 mA (Ferrite, Uprox) | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| | ≤20 mA (Uprox+, Uprox 3) | Repeatability: | ≤2% of Rated Operating Distance |

**A5** — **2-wire AC/DC w/ Short-Circuit Protection - (ADZ, RDZ, FDZ, VDZ)**

| | | | |
|---|---|---|---|
| Line Frequency: | ≥50... ≤60 Hz | Minimum Load Current: | ≥3.0 mA |
| Differential Travel (Hysteresis): | 3-15% (5% typical) | Inrush Current: | ≤3 A (≤20 ms, max 5 Hz) |
| Voltage Drop Across Conducting Sensor: | ≤6.0 V | Power-On Effect: | Per IEC 947-5-2 |
| Trigger Current for Short Circuit Protection: | AC: ≥440 mA; DC: ≥330 mA | Transient Protection: | Per EN 60947-5-2 |
| | AC: ≥120 mA; DC: ≥120 mA | Shock: | 30 g, 11 ms |
| Continuous Load Current: | AC: ≤400 mA; DC: ≤300 mA | Vibration: | 55 Hz, 1 mm Amplitude, in all 3 Planes |
| | AC: ≤100 mA; DC: ≤100 mA | Repeatability: | ≤2% of Rated Operating Distance |
| Off-State (Leakage) Current: | ≤1.7 mA (AC) | | |
| | ≤1.5 mA (DC) | | |

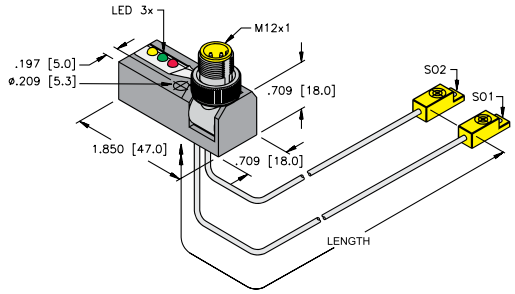
# Cylinder Position Sensors | Q9.5

## Power Clamp Position Sensors

| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ni2-Q9.5-AP6-0.1-FS4.4X3/S304**<br>1650060 | | 4-wire DC, PNP | 10-30 VDC | 30 | ≤ 150 | -25 to +70 | IP67 | PBT | 0.1M/TPU | A | 1 | A4 |
| **Ni2-Q9.5-0.1-BDS-2AP6X3-H1141/S34**<br>1650099 | WFI | 4-wire DC, PNP | 10-30 VDC | 30 | ≤ 150 | -25 to +70 | IP67 | PBT | 0.1M/TPU | B | 1 | A4 |
| **Ni2-Q9.5-ADZ32-0.1-FSB5.4X4/S304**<br>4200210 | | 4-wire, VAC/DC | 20-250 VAC/10-300 VDC | 20 | ≤ 100 | -25 to +70 | IP67 | PBT | 0.1M/TPU | C | 2 | A5 |

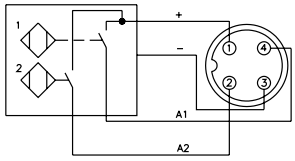
# Cylinder Position Sensors | ISI

## Power Clamp Position Sensors

| Housing Style | Dimension Drawings |
|---|---|
|  | A   ISI - Eurofast Connector |

### Wiring Diagrams/Mating Cordsets

1




Mating Cordset: RK 4.4T-*

### A4 — 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)

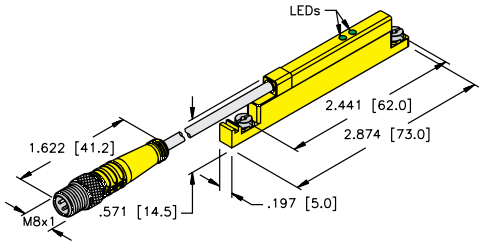
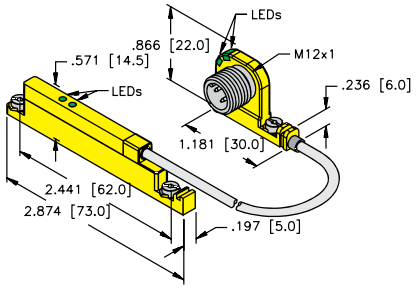
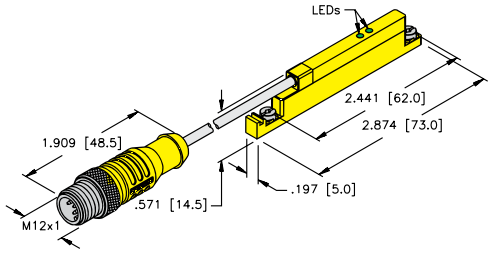
| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Time Delay Before Availability: | ≤8 ms |
| Differential Travel (Hysteresis): | 3-15% (5% typical) | Power-On Effect: | Per IEC 947-5-2 |
| Voltage Drop Across Conducting Sensor: | ≤1.8 V | Reverse Polarity Protection: | Incorporated |
| Trigger Current for Short Circuit Protection: | ≥220 mA on 200 mA Load Current | Wire-Break Protection: | Incorporated |
| | ≥170 mA on 150 mA Load Current | Transient Protection: | Per EN 60947-5-2 |
| | ≥120 mA on 100 mA Load Current | Temperature Drift: | ≤±10% |
| Off-State (Leakage) Current: | ≤0.1 mA | Shock: | 30 g, 11 ms |
| No-Load Current: | ≤15 mA (Ferrite, Uprox) | Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| | ≤20 mA (Uprox+, Uprox 3) | Repeatability: | ≤2% of Rated Operating Distance |

# Cylinder Position Sensors | ISI

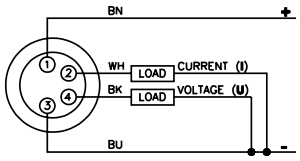
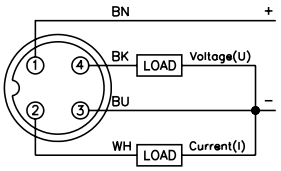
## Power Clamp Position Sensors

| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ni2-ISI-0.1-BDS-2AP6X3-H1141/S34**<br>1650133 | WFI | 4-wire DC, PNP | 10-30 VDC | 30 | ≤ 150 | -25 to +70 | IP67 | PBT | 0.1M/TPU | A | 1 | A4 |

## Power Clamp Position Sensors

| Housing Style | Dimension Drawings |
|---|---|
|  | A   23 mm - Embeddable, T-groove Pneumatic Cylinders Picofast Quick Disconnect |
| B   23 mm - Embeddable, T-groove Pneumatic Cylinders Eurofast Quick Disconnect | C   23 mm - Embeddable, T-groove Pneumatic Cylinders Eurofast Quick Disconnect |

### Wiring Diagrams/Mating Cordsets

| 1 | 2 |
|---|---|
|   Mating Cordset: RK 4.4T-*; PKG 4M-* |   Mating Cordset: RK 4.4T-* |

### A7 — 3 and 4-wire DC Analog - (LIU, SIU)

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Transient Protection: | Per EN 60947-5-2 |
| No-Load Current: | ≤8.0 mA | Shock: | 30 g, 11 ms |
| Load Resistance Voltage Output: | 0-10 V/$R_L$ ≥4.7 kΩ | Vibration: | 55 Hz, 1 mm Amplitude, in all 3 Planes |
| Load Resistance Current Output: | 0-20 mA/$R_L$ ≤0.4 kΩ | Repeatability: | ≤1% of measuring range \|A-B\| |
| Temperature Drift: | ±0.06% / °C | | (0.5% after 30 min. warm up) |
| LIU5: | 4-20 mA, 0-10 V | Short-Circuit Protection: | Yes |
| LIU2: | 4-20 mA, 2-10 V | Reverse Polarity Protection: | Incorporated |

### A8 — 3 and 4-wire DC Analog - (LU)

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Short-Circuit Protection: | Yes |
| No-Load Current: | ≤8.0 mA | Wire-Break Protection: | Yes |
| Load Resistance Voltage Output: | 0-10 V/$R_L$ ≥4.7 kΩ | Shock: | 30 g, 11 ms |
| Temperature Drift: | ±0.06% / °C | Vibration: | 55 Hz, 1 mm Amplitude, in all 3 Planes |
| Reverse Polarity Protection: | Incorporated | Repeatability: | ≤1% of measuring range \|A-B\| |
| Transient Protection: | Per EN 60947-5-2 | | (0.5% after 30 min. warm up) |

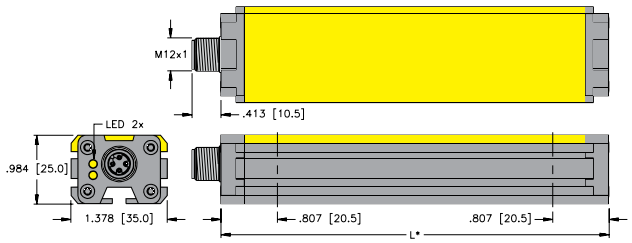
# Cylinder Position Sensors | WIM

## Power Clamp Position Sensors

| Part Number/ ID Number | Linear Operating Distance (mm) | Resolution | Output | Voltage | Output Voltage/ Current | Operating Temp. (°C) | Protection | Housing | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WIM45-UNTL-LIU5X2-0.3-PSG4M** 1536620 | 45 | 10 bit | 4-wire DC, Current and Voltage | 15-30 VDC | 0-10 V/4-20 mA | -25 to +70 | IP67 | PA 12 | 0.3M/TPU | A | 1 | A7 |
| **WIM45-UNTL-0.3-BIM-UNT-LUAP6X4-H1141** 1536623 | 45 | 10 bit | 4-wire DC, Current and Voltage | 15-30 VDC | 0-10 V/4-20 mA | -25 to +70 | IP67 | PA 12 | 0.3M/TPU | B | 2 | A8 |
| **WIM45-UNTL-LIU5X2-0.3-RS4** 1536621 | 45 | 10 bit | 4-wire DC, Current and Voltage | 15-30 VDC | 0-10 V/4-20 mA | -25 to +70 | IP67 | PA 12 | 0.3M/TPU | C | 1 | A7 |

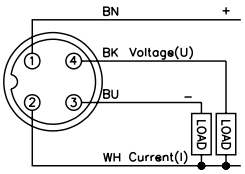
# Cylinder Position Sensors | WIM

**Magnetic Linear Position Sensors**

| Housing Style | Dimension Drawings |
|---|---|
|  | A   25 mm - Embeddable, Eurofast Quick Disconnect |

**Wiring Diagrams/ Mating Cordset**

1




Mating Cordset: RK 4.4T-*

**A7** — **3 and 4-wire DC Analog - (LIU, SIU)**

| | | | |
|---|---|---|---|
| Ripple: | ≤10% | Transient Protection: | Per EN 60947-5-2 |
| No-Load Current: | ≤8.0 mA | Shock: | 30 g, 11 ms |
| Load Resistance Voltage Output: | 0-10 V/$R_L$ ≥4.7 kΩ | Vibration: | 55 Hz, 1 mm Amplitude, in all 3 Planes |
| Load Resistance Current Output: | 0-20 mA/$R_L$ ≤0.4 kΩ | Repeatability: | ≤1% of measuring range \|A-B\| (0.5% after 30 min. warm up) |
| Temperature Drift: | ±0.06% / °C | | |
| LIU5: | 4-20 mA, 0-10 V | Short-Circuit Protection: | Yes |
| LIU2: | 4-20 mA, 2-10 V | Reverse Polarity Protection: | Incorporated |

**Additional Specifications**

**Magnetic Actuation Strength (Gauss):** 50-100

For mounting accessories see page G9

# Cylinder Position Sensors | WIM

## Magnetic Linear Position Sensors

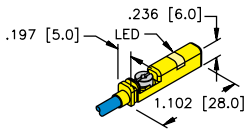
| Part Number/ ID Number | Linear Operating Distance (mm) | Resolution | Output | Voltage | Output Voltage/ Current | Operating Temp. (°C) | Protection | Housing | Face | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **WIM100-Q25L141-LIU5X2-H1141** 1536630 | 100 | 10 bit | 4-wire DC, Current and Voltage | 15-30 VDC | 0-10 V/4-20 mA | -25 to +70 | IP67 | AL | PC-GF20 | A | 1 | A7 |
| **WIM125-Q25L166-LIU5X2-H1141** 1536631 | 125 | 10 bit | 4-wire DC, Current and Voltage | 15-30 VDC | 0-10 V/4-20 mA | -25 to +70 | IP67 | AL | PC-GF20 | A | 1 | A7 |
| **WIM160-Q25L201-LIU5X2-H1141** 1536632 | 160 | 10 bit | 4-wire DC, Current and Voltage | 15-30 VDC | 0-10 V/4-20 mA | -25 to +70 | IP67 | AL | PC-GF20 | A | 1 | A7 |
| **WIM200-Q25L241-LIU5X2-H1141** 1536633 | 200 | 10 bit | 4-wire DC, Current and Voltage | 15-30 VDC | 0-10 V/4-20 mA | -25 to +70 | IP67 | AL | PC-GF20 | A | 1 | A7 |

# Cylinder Position Sensors | Namur

**Intrinsically Safe**

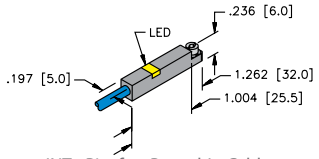
## Dimension Drawings

A



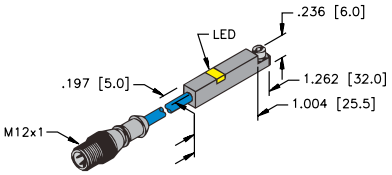

UNT - Potted-In Cable

B



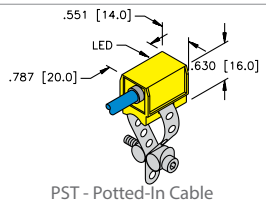

INT - Picofast Potted-In Cable

C



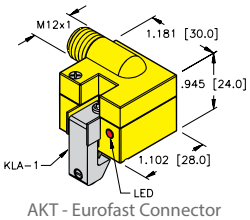

INT - Eurofast Quick Disconnect

D



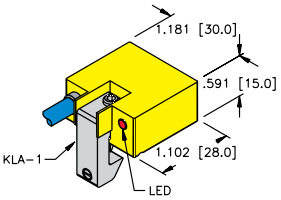

PST - Potted-In Cable

E



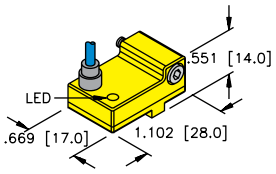

AKT - Eurofast Connector

F



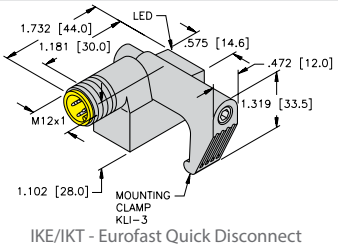

AKT - Potted-In Cable

G



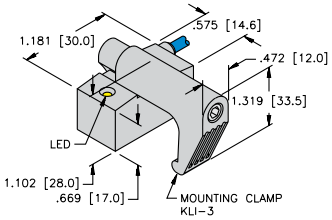

NST - Potted-In Cable

H




IKE/IKT - Eurofast Quick Disconnect

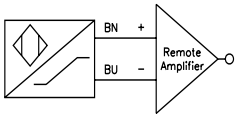
I



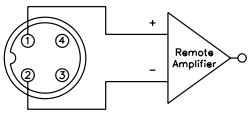

IKE/IKT - Potted-In Cable

## Wiring Diagrams/Mating Cordsets

1




2




Mating Cordset: RK 4.21T-*

## A16 — 2-wire DC NAMUR - Magnetic (Y0 and Y1)

| | |
|---|---|
| Differential Travel (Hysteresis): | ≤1 mm |
| Nominal Voltage: | 8.2 VDC (EN60947-5-6) |
| Load Resistance: | 1000 Ω |
| Non-activated Current Consumption: | ≤1.2 mA |
| Activated Current Consumption: | ≥2.1 mA |
| Recommended Switching Point for Remote Amplifier: | >1.2 to <2.1 mA, typ. 1.55 mA ON/1.75 mA OFF |

| | |
|---|---|
| Power-On Effect: | Realized in Amplifier |
| Reverse Polarity Protection: | Incorporated |
| Wire-Break Protection: | Realized in Amplifier |
| Transient Protection: | Realized in Amplifier |
| Shock: | 30 g, 11 ms |
| Vibration: | 55 Hz, 1 mm Amplitude in all 3 Planes |
| Repeatability: | ≥± 0.1 mm |
| Pass Speed: | ≤10 ms |

## Additional Specifications

**Magnetic Actuation Strength (Gauss):** 20-350

# Cylinder Position Sensors | Namur

## Intrinsically Safe

| Part Number/ ID Number | Features | Output | Voltage | Switching Freq. (Hz) | Operating Current (mA) VAC/VDC | Operating Temp. (°C) | Protection | Housing | Power LED | Output LED | Cable Length/Jacket | Dimension Drawings | Wiring Diagrams | Spec List |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **BIM-UNT-AY1X/S1139** 4685763 | Wider Range | 2-wire DC NAMUR | 8.2 VDC nominal | 1000 | Remote | -25 to +70 | IP67 | PA 12 | N/A | YE | 2M/ PVC | A | 1 | A16 |
| **BIM-INT-Y1X** 1056800 | | 2-wire DC NAMUR | 8.2 VDC nominal | 1000 | Remote | -25 to +70 | IP67 | PA 12 | N/A | YE | 2M/ PVC | B | 1 | A16 |
| **BIM-INT-Y1X-0.2-RS4.21T** 1056892 | | 2-wire DC NAMUR | 8.2 VDC nominal | 1000 | Remote | -25 to +70 | IP67 | PA 12 | N/A | YE | 0.2M/ PVC | C | 2 | A16 |
| **BIM-PST-Y1X W/KLP-80** 1057090 | KLP-80 Included | 2-wire DC NAMUR | 8.2 VDC nominal | 1000 | Remote | -25 to +70 | IP67 | PA 12 | N/A | YE | 2M/ PVC | D | 1 | A16 |
| **BIM-AKT-Y1X-H1141 W/KLA-1** 1055290 | KLA-1 Included | 2-wire DC NAMUR | 8.2 VDC nominal | 1000 | Remote | -25 to +70 | IP67 | PA 12 | N/A | YE | -- | E | 2 | A16 |
| **BIM-AKT-Y1X W/KLA-1** 1055090 | KLA-1 Included | 2-wire DC NAMUR | 8.2 VDC nominal | 1000 | Remote | -25 to +70 | IP67 | PA 12 | N/A | YE | 2M/ PVC | F | 1 | A16 |
| **BIM-IKE-Y1X W/KLI-3** 1056490 | KLI-3 Included | 2-wire DC NAMUR | 8.2 VDC nominal | 1000 | Remote | -25 to +70 | IP67 | Zinc | N/A | YE | 2M/ PVC | I | 1 | A16 |
| **BIM-IKE-Y1X-H1141 W/KLI-3** 1056690 | KLI-3 Included | 2-wire DC NAMUR | 8.2 VDC nominal | 1000 | Remote | -25 to +70 | IP67 | Zinc | N/A | YE | -- | H | 2 | A16 |
| **BIM-NST-Y1X** 1058400 | w/o Bracket | 2-Wire DC NAMUR | 8.2 VDC nominal | 1000 | Remote | -25 to +70 | IP67 | PA 12 | N/A | YE | 2M/ PVC | G | 1 | A16 |