



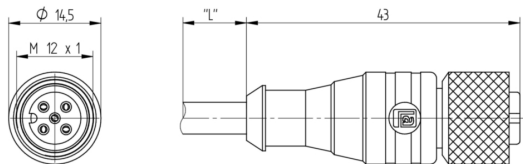
**Product:** [RKT 5-228](#)

M12 Standard Sensor/Actuator Single-Ended Cordset: Female, straight, 5-pin, A-coded, translucent body, 50 V AC / 60 V DC, 4 A; PUR black cable, 5-wires, 0.50 mm<sup>2</sup>

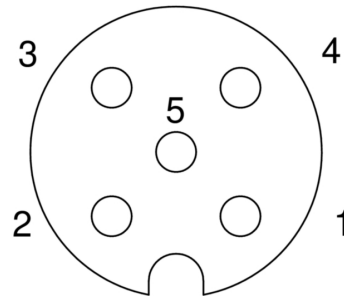
### Product Description

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### Technical Drawing



## Female



### Technical Specifications

#### Face View

| Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5        |
|-------|-------|-------|-------|--------------|
| brown | white | blue  | black | green-yellow |

#### Technical Data

|                           |                              |
|---------------------------|------------------------------|
| Product Family:           | Sensor / Actuator Connectors |
| Product Sub Family:       | M12 Standard                 |
| Brand:                    | Lumberg Automation           |
| Connector Type:           | Cordset, single ended        |
| Type of Contact / Gender: | Female                       |
| Connector Design:         | Straight                     |
| Number of Pins:           | 5                            |
| Coding:                   | A                            |
| Shielding:                | Unshielded                   |
| Attachment Type:          | Coupling Nut                 |
| Rated Voltage:            | 60 V                         |
| Rated Voltage (UL):       | 30 V AC/DC                   |
| Rated Impulse Voltage:    | 1.5 kV                       |
| Operating Voltage:        | 50 V AC / 60 V DC            |
| Rated Current*:           | 4 A                          |
| Rated Current (UL)*:      | 4 A                          |

|                                   |   |
|-----------------------------------|---|
| Contact Resistance:               | ≤ 10 mOhm   |
| Insulation Resistance:            | > 10 <sup>9</sup> Ohm                                       |
| Mating Cycles:                    | ≤ 100   |
| Ambient Temperature (Operation)*: | - 40 °C - + 90 °C   |
| Operating Temperature (UL):       | max. + 50 °C  |
| Protection Degree / IP Rating**:  | IP65, IP67, IP68 (1 m / 24 h), IP69K                        |
| Design Standard:                  | Pin assignment deviating from IEC 61076-2-101 and IEC 61140 |
| Pollution Degree:                 | 3 acc. to DIN EN 60664-1 (VDE 0110-1)                       |
| Overvoltage Category:             | III acc. to DIN EN 60664-1 (VDE 0110-1)                     |

## Materials

|                                      |               |
|--------------------------------------|---------------|
| Contact Base Material:               | CuSn          |
| Contact Plating:                     | Cu/Au         |
| Contact Bearer Material:             | TPU           |
| Contact Bearer Color:                | Orange        |
| Flammability Class (Contact Bearer): | UL 94 HB      |
| Molded Body Material:                | TPU           |
| Molded Body Color:                   | Translucent   |
| Flammability Class (Molded Body):    | UL 94 HB      |
| Attachment Material:                 | CuZn          |
| Attachment Plating:                  | Nickel-plated |
| O-Ring Material:                     | FKM, green    |

## Additional Technical Data

|                                |                                 |
|--------------------------------|---------------------------------|
| Fastening Torque (Attachment): | M 12x1: (50-60) Ncm, hand-tight |
|--------------------------------|---------------------------------|

## Cable Data

|   |  |
|---|--|
| Cable Number:                             | 228  |
| Conductor Size:                           | 0.5 mm <sup>2</sup>  |
| Number of Wires:                          | 5  |
| Minimal Bending Radius (Fixed Inst):      | > 5 x D  |
| Minimal Bending Radius (Flexible Inst):   | > 10 x D   |
| Cycles (Bending):                         | > 5 M  |
| Cycles (Torsion):                         | > 5 M @ ± 360 °/1 m  |
| Conductor material:                       | Cu   |
| Cable Jacket Material:                    | PUR  |
| Cable Jacket Color:                       | black matt similarly RAL 9005  |
| Cable Diameter D:                         | ø 5.40 ± 0.20 mm   |
| Wire Insulation Material:                 | PP   |
| Insulated Wire Diameter:                  | ø 1.50 ± 0.05 mm   |
| Ambient Temperature (Fixed Installation): | - 50 °C - + 105 °C (UL: + 80 °C)   |
| Ambient Temperature (Flex Installation):  | - 25 °C - + 105 °C (UL: + 80 °C)   |
| Ambient Temperature (Drag Chain Inst):    | - 25 °C - + 60 °C  |
| UL Cable Type:                            | AWM: 20549   |
| Flammability Class (Cable Jacket):        | DIN EN 60332-2-2, VDE 0482-332-2-2, IEC 60332-2-2, CSA FT-2  |
| Cable Characteristics:                    | Good microbes and hydrolysis resistance; Mainly plasticizer diffusion free; Exclusion of PVC and silicone; Free of lacquer wetting disturbing substances; Coldness flexibility |

## Approvals

|          |                |
|----------|----------------|
| UL-File: | E315587        |
| UL:      | UL 2238; cURus |

## Safety & Environmental Compliance

|                 |     |
|-----------------|-----|
| RoHS Compliant: | yes |
|-----------------|-----|

## Resistances

|                 |   |
|-----------------|---|
| Halogenfree:    | DIN EN 50267-2-1, IEC 60754-1, VDE 0482-267-2-1 |
| Oil Resistance: | IEC 60811:404                                   |

## Notes

|                                     |  |
|-------------------------------------|--|
| Note Derating:                      | Notice derating  |
| Protection Degree / IP Rating Note: | ** only if mounted and locked in combination with Hirschmann / Lumberg Automation connector. |
| Note:                               | Do not connect or disconnect under load.   |

## Variants

| Item #    | Item Description | Cable Length | Rated Current |
|-----------|------------------|--------------|---------------|
| 414       | RKT 5-228/60 M   | 60 m         | 4 A           |
| 5888      | RKT 5-228/4 M    | 4 m          | 4 A           |
| 11373     | RKT 5-228/2 M    | 2 m          | 4 A           |
| 11374     | RKT 5-228/5 M    | 5 m          | 4 A           |
| 17046     | RKT 5-228/10 M   | 10 m         | 4 A           |
| 43657     | RKT 5-228/25 M   | 25 m         | 4 A           |
| 44194     | RKT 5-228/1 M    | 1 m          | 4 A           |
| 44382     | RKT 5-228/15 M   | 15 m         | 4 A           |
| 53594     | RKT 5-228/3 M    | 3 m          | 4 A           |
| 57149     | RKT 5-228/30 M   | 30 m         | 4 A           |
| 57150     | RKT 5-228/50 M   | 50 m         | 4 A           |
| 57889     | RKT 5-228/7 M    | 7 m          | 4 A           |
| 71454     | RKT 5-228/0,5 M  | 0.5 m        | 4 A           |
| 75953     | RKT 5-228/40 M   | 40 m         | 4 A           |
| 89603     | RKT 5-228/2,5 M  | 2.5 m        | 4 A           |
| 95343     | RKT 5-228/0,3 M  | 0.3 m        | 4 A           |
| 934636754 | RKT 5-228/6 M    | 6 m          | 4 A           |
| 13125     | RKT 5-228/0,2 M  | 0.2 m        | 4 A           |
| 49868     | RKT 5-228/0,6 M  | 0.6 m        | 4 A           |
| 327       | RKT 5-228/1,5 M  | 1.5 m        | 4 A           |

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