



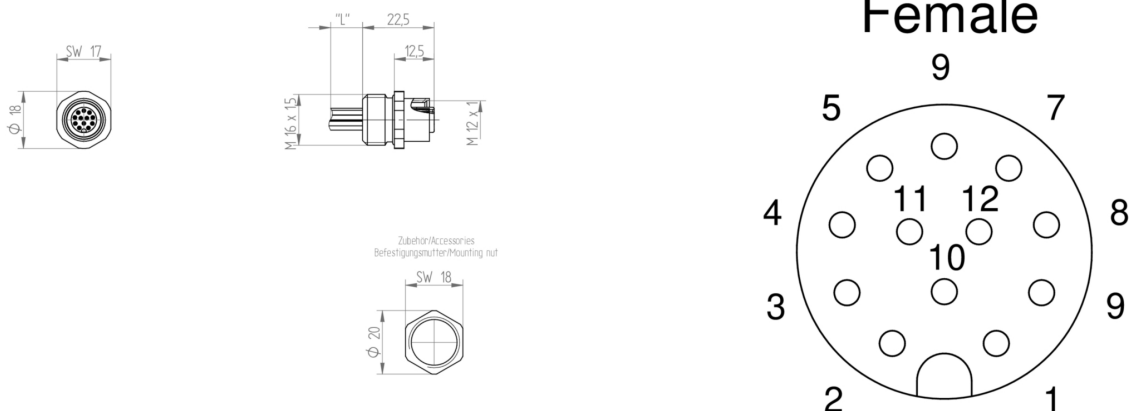
**Product:** [RKFM 12 M](#)

M12 Standard Sensor/Actuator Receptacle Connector: Female, front mount, M12 - mating side, stranded wires - connecting side, 12-pin, A-coded, unshielded, metallic grey housing, 30 V AC/DC, 1.5 A

## Product Description

M12 Standard Sensor/Actuator Receptacle Connector: Female, front mount, M12 - mating side, stranded wires - connecting side, 12-pin, A-coded, unshielded, metallic grey housing, 30 V AC/DC, 1.5 A

## Technical Drawing



## Technical Specifications

### Face View

| Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6  | Pin 7 | Pin 8 | Pin 9 | Pin 10 | Pin 11    | Pin 12   |
|-------|-------|-------|-------|-------|--------|-------|-------|-------|--------|-----------|----------|
| brown | blue  | white | green | pink  | yellow | black | grey  | red   | purple | grey-pink | red-blue |

### Technical Data

|                           |                              |
|---------------------------|------------------------------|
| Product Family:           | Sensor / Actuator Connectors |
| Product Sub Family:       | M12 Standard                 |
| Mating Side:              | M12                          |
| Connecting Side:          | Stranded Wires               |
| Brand:                    | Lumberg Automation           |
| Connector Type:           | Receptacle                   |
| Type of Contact / Gender: | Female                       |
| Connector Design:         | Front Mount                  |
| Number of Pins:           | 12                           |
| Coding:                   | A                            |
| Attachment Type:          | Screw-Locking                |
| Rated Voltage:            | 30 V                         |
| Rated Voltage (UL):       | 30 V AC/DC                   |
| Rated Impulse Voltage:    | 0.8 kV                       |
| Operating Voltage:        | 30 V AC/DC                   |
| Rated Current*:           | 1.5 A                        |

|                                   |                                         |
|-----------------------------------|-----------------------------------------|
| Rated Current (UL)*:              | 2 A                                     |
| Contact Resistance:               | ≤ 10 mOhm                               |
| Insulation Resistance:            | > 10 <sup>9</sup> Ohm                   |
| Mating Cycles:                    | ≤ 100                                   |
| Type of Connection:               | Crimp                                   |
| Thread Size:                      | M16x1.5                                 |
| Ambient Temperature (Operation)*: | - 25 °C - + 85 °C                       |
| Operating Temperature (UL):       | max. + 50 °C                            |
| Protection Degree / IP Rating**:  | IP65, IP67                              |
| Design Standard:                  | IEC 61076-2-101                         |
| Pollution Degree:                 | 3 acc. to DIN EN 60664-1 (VDE 0110-1)   |
| Clearance / Creepage Distance:    | DIN EN 60664-1 (2008/01); VDE 0110-1    |
| Overvoltage Category:             | III acc. to DIN EN 60664-1 (VDE 0110-1) |

Materials

|                                      |               |
|--------------------------------------|---------------|
| Contact Base Material:               | CuZn          |
| Contact Plating:                     | Cu/Au         |
| Contact Bearer Material:             | TPU-GF        |
| Contact Bearer Color:                | Orange        |
| Flammability Class (Contact Bearer): | UL 94 HB      |
| Potted:                              | Yes           |
| Housing Material:                    | CuZn          |
| Housing Plating:                     | Nickel-plated |
| Housing Color:                       | Silver        |
| Attachment Material:                 | CuZn          |
| Attachment Plating:                  | Nickel-plated |
| O-Ring Material:                     | FKM           |

Additional Technical Data

|                                  |                                  |
|----------------------------------|----------------------------------|
| Fastening Torque (Attachment):   | M 12x1: (50-60) Ncm, hand-tight  |
| Accessories to Order Separately: | 000-025-049 Mounting Nut M16x1.5 |

Cable Data

|                                           |                                                                                        |
|-------------------------------------------|----------------------------------------------------------------------------------------|
| Cable Number:                             | 908 44                                                                                 |
| Conductor Size:                           | 0.227 mm²                                                                              |
| Number of Wires:                          | 12                                                                                     |
| Conductor material:                       | Cu                                                                                     |
| Wire Insulation Material:                 | PVC                                                                                    |
| Insulated Wire Diameter:                  | ø 1.45 mm ± 0.1 mm                                                                     |
| Ambient Temperature (Fixed Installation): | - 40 °C - + 90 °C                                                                      |
| Ambient Temperature (Flex Installation):  | - 20 °C - + 90 °C                                                                      |
| UL Cable Type:                            | AWM: 1007                                                                              |
| Flammability Class (Cable Jacket):        | DIN EN 60332-1-2, VDE 0482-332-1-2, IEC 60332-1-2, UL-VW1, CSA-FT1                     |
| Core Colors:                              | blue, brown, red, green, yellow, pink, grey, white, black, violet, grey/pink, red/blue |

Approvals

|          |         |
|----------|---------|
| UL-File: | E315587 |
| UL:      | cURus   |

Safety & Environmental Compliance

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

Notes

|                                     |                                                                                                                                                                                                               |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note Derating:                      | * Notice derating                                                                                                                                                                                             |
| Protection Degree / IP Rating Note: | * only if mounted and locked in combination with Hirschmann / Lumberg connector. On the installation side tightness has to be assured by taking proper measures.                                              |
| Note:                               | The receptacle connector is constructively intended for usage in IP67-products. To realise this protection class, the estimated location has to be designed accordingly. Further details see IEC 61076-2-101. |

|          |                                                                                                                                                                                                              |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UL Note: | The receptacle connector is constructively intended for usage in IP67-products. To realise this protection class, the estimated location has to be designed accordingly. Further details see IEC 61076-2-101 |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Variants**

| Item # | Item Description | Cable Length |
|--------|------------------|--------------|
| 86153  | RKFM 12/0,5 M    | 0.5 m        |
| 22838  | RKFM 12/2 M      | 2 m          |

© 2023 Belden, Inc  
 All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.