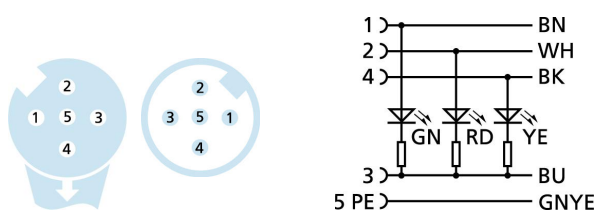
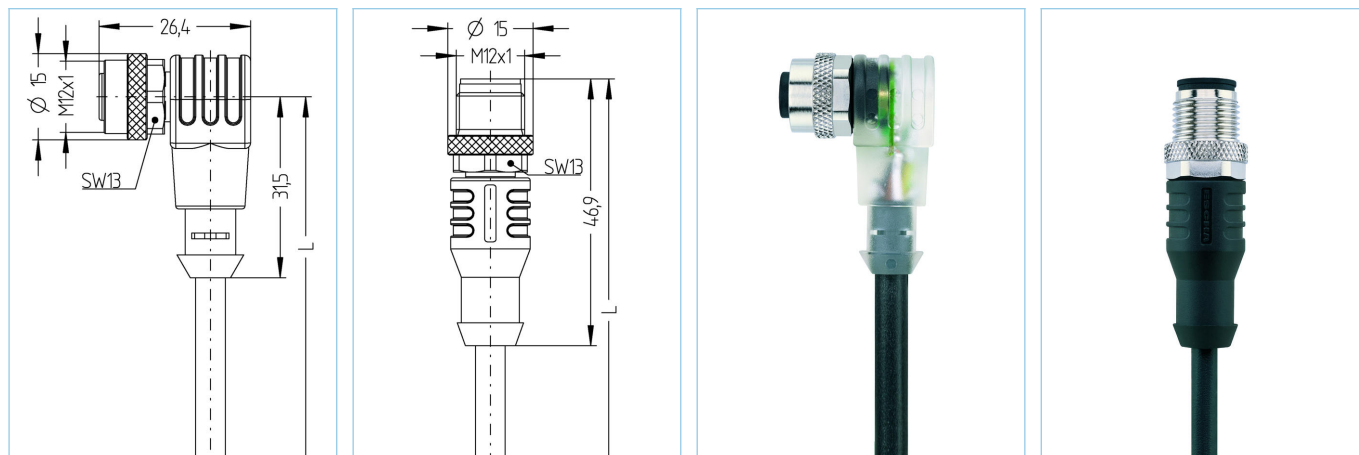


**M12, female, angled, 4+PE, M12, male, straight, 4+PE, with LED, sensor-/actuator cable**



**Product data**

|                    |                             |
|--------------------|-----------------------------|
| Item description   | AL-WWAK5P3.1-3-AL-WAS5/S370 |
| Item-No.           | 8045019                     |
| Length             | 3m                          |
| Customs tariff-No. | 85444290                    |
| Step-File          | AL-WWAK5P3_1_AL-WAS5.stp    |
| EAN                | 4047106204303               |

| Technical data                 | A-side                         | B-side                         |
|--------------------------------|--------------------------------|--------------------------------|
| Connector                      | female, angled, M12, with LED  | male, straight, M12            |
| Number of pins                 | 4+PE                           | 4+PE                           |
| Pin assignment                 | 1 BN, 2 WH, 3 BU, 4 BK, 5 GNYE | 1 BN, 2 WH, 3 BU, 4 BK, 5 GNYE |
| Coding of                      | A                              | A                              |
| Rated voltage                  | 30V                            | 60V                            |
| Current load (at 40°C)         | 4A                             | 4A                             |
| Insulation resistance          | $\geq 10^9 \Omega$             | $\geq 10^9 \Omega$             |
| Resistance                     | $\leq 5 m\Omega$               | $\leq 5 m\Omega$               |
| Ambient temperature product    | -30°C...+90°C                  | -30°C...+90°C                  |
| Contact material               | Metal, CuZn, gold-plated       | Metal, CuSn, gold-plated       |
| Contact-carrier material       | Plastic, TPU, BK               | Plastic, TPU, BK               |
| Grip body material             | Plastic, TPU, transparent      | Plastic, TPU, BK               |
| Coupling nut material          | Metal, CuZn, nickel-plated     | Metal, CuZn, nickel-plated     |
| Sealing (female) material      | FPM/FKM                        |                                |
| Circuit logic                  | pnp                            |                                |
| Signal status-indicator        | LED YE/RD                      |                                |
| Operating voltage-indicator    | LED GN                         |                                |
| Standards                      | IEC 61076-2-101                | IEC 61076-2-101                |
| Degree of protection (mounted) | IP65, IP67, IP68               | IP65, IP67, IP68               |
| Mechanical life-cycle          | >100 mating cycles             | >100 mating cycles             |
| Degree of pollution            | 3                              | 3                              |

## Cable web

PUR, UL, S370

Flexible, silicone- and halogen-free control line with high mechanical strength. The cable is chemicals, hydrolysis-, and microbes- resistant. The drag-chain application is possible at a bending radius of minimum 10 x d. Due to its weld-field immunity, the cable is very well suited for the flexible application in robotics, machine-tool, and metal-cutting production. The cables meet the UL and CSA (UL10493/20549; cULus) requirements.

|                                |                                                                                                                                                                                                                                                                      |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Outer diameter of jacket       | 5.20 mm                                                                                                                                                                                                                                                              |
| Cable-jacket material          | PUR                                                                                                                                                                                                                                                                  |
| Jacket color                   | BK, similar RAL9005                                                                                                                                                                                                                                                  |
| Wire cross-section             | 5 x 0.34 mm <sup>2</sup>                                                                                                                                                                                                                                             |
| Wire insulation material       | PP                                                                                                                                                                                                                                                                   |
| Wire colors                    | BN, WH, BU, BK, GNYE                                                                                                                                                                                                                                                 |
| Wire structure                 | 42 x 0.10 mm                                                                                                                                                                                                                                                         |
| Bending radius (fixed)         | 5 x Ø-cable                                                                                                                                                                                                                                                          |
| Bending radius (repeated)      | 10 x Ø-cable                                                                                                                                                                                                                                                         |
| Temperature range (repeated)   | -30°C...+90°C                                                                                                                                                                                                                                                        |
| Temperature range (fixed)      | -40°C...+90°C                                                                                                                                                                                                                                                        |
| Temperature range (drag chain) | -25°C...+60°C                                                                                                                                                                                                                                                        |
| Drag chain-application         | 3 Mio. cycles                                                                                                                                                                                                                                                        |
| Halogen-free                   | Yes                                                                                                                                                                                                                                                                  |
| Torsion                        | +/-180°/m, < 1 Mio. cycles                                                                                                                                                                                                                                           |
| Rated voltage cable            | ≤300 V                                                                                                                                                                                                                                                               |
| Special features               | flame retardant, halogen free, hydrolysis proof, LABS free, oil resistant, ozone resistant, recyclable, RoHs compliant, acid- and alkali resistant, drag chain-adapted, welding sparks resistant, seawater resistant, silicone free, torsion resistant, UV resistant |

## Classification

|            |          |
|------------|----------|
| eCl@ss 6.0 | 27279218 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27279218 |
| eCl@ss 9.0 | 27060311 |
| ETIM 5.0   | EC001855 |
| ETIM 6.0   | EC001855 |

## Accessories

### Mounting-clip, M12

<https://www.escha.net/en/products/standard/accessories-for-connectivity/8047660>

### Torque-wrench set

<https://www.escha.net/en/products/standard/accessories-for-connectivity/8055431>

### Marking rings Ø 9mm

<https://www.escha.net/en/products/standard/accessories-for-connectivity?p=1&o=3&n=15&f=809>

### Screw plug, M12

<https://www.escha.net/en/products/standard/accessories-for-connectivity?p=1&o=3&n=15&f=812>

### Screw cap, M12

<https://www.escha.net/en/products/standard/accessories-for-connectivity?p=1&o=3&n=15&f=811>