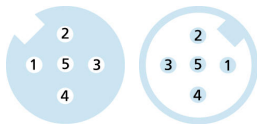
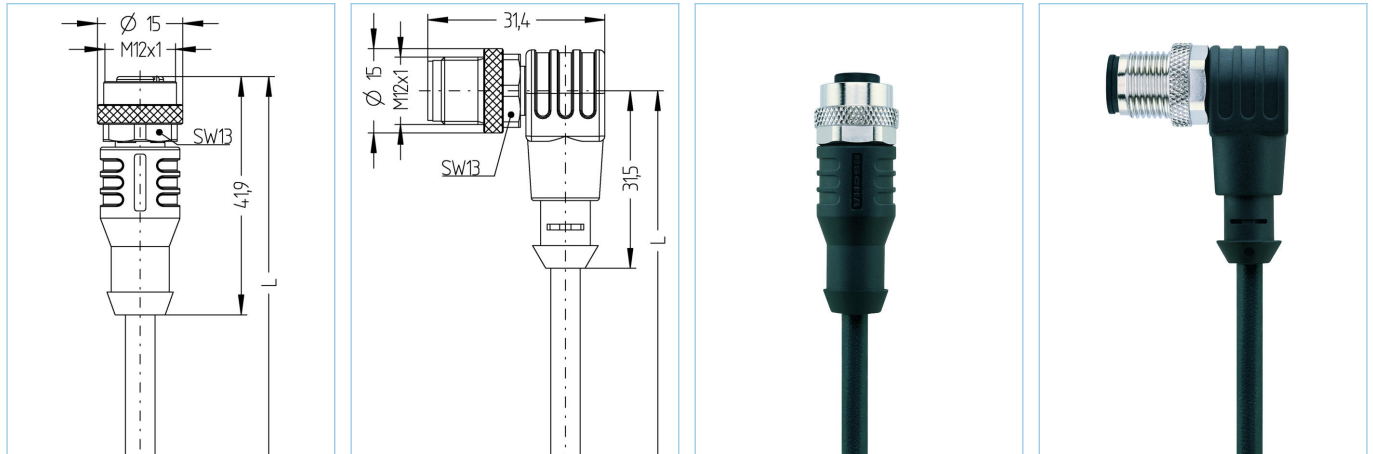


## Double-ended cordset, Automation Line, M12



### Product data

|                    |                             |
|--------------------|-----------------------------|
| Item description   | AL-WAK4.5-5-AL-WWAS4.5/S370 |
| Item-No.           | 8044060                     |
| Length             | 5m                          |
| Customs tariff-No. | 85444290                    |
| Step-File          | AL-WAK4_5_AL-WWAS4_5.stp    |
| EAN                | 4047106003685               |
| Label-carrier      | 2 pieces                    |

| Technical data                 | A-side                       | B-side                       |
|--------------------------------|------------------------------|------------------------------|
| Connector                      | female, straight, M12        | male, angled, M12            |
| Number of pins                 | 5                            | 5                            |
| Pin assignment                 | 1 BN, 2 WH, 3 BU, 4 BK, 5 GY | 1 BN, 2 WH, 3 BU, 4 BK, 5 GY |
| Coding of                      | A                            | A                            |
| Rated voltage                  | 60V                          | 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, CuSn, gold-plated     | Metal, CuSn, gold-plated     |
| Contact-carrier material       | Plastic, TPU, BK             | Plastic, TPU, BK             |
| Grip body material             | Plastic, TPU, BK             | Plastic, TPU, BK             |
| Coupling nut material          | Metal, CuZn, nickel-plated   | Metal, CuZn, nickel-plated   |
| Sealing (female) material      | FPM/FKM                      |                              |
| 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                            |

|              |                      |
|--------------|----------------------|
| <b>Cable</b> | <b>PUR, UL, S370</b> |
|--------------|----------------------|

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, GY                                                                                                                                                                                                                                                   |
| Conductor 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)      | -50°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, seawater resistant, recyclable, LABS free, RoHs compliant, acid- and alkali resistant, ozone resistant, UV resistant, hydrolysis proof, drag chain-adapted, torsion resistant, welding sparks resistant, halogen free, silicone free, oil 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-set, M12

<https://www.escha.net/en/Products/Standard/Accessories-for-connectivity/8047664/Mounting-set-M12-clips-and-screws-M4x8-black>

##### Torque-wrench set

<https://www.escha.net/en/Products/Standard/Accessories-for-connectivity/8055431/Torque-wrench-set-M8-M12>

##### Marking rings Ø 9mm

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