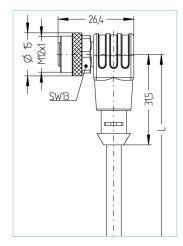
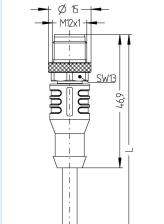


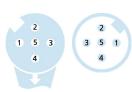
M12, female, angled, 5 poles, M12, male, straight, 5 poles, with LED, sensor-/actuator cable

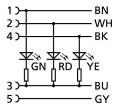














Product data	
Item description	AL-WWAK4.5P3.1-4-AL-WAS4.5/S7400
Item-No.	8088113
Length	4m
Customs tariff-No.	85444290
Step-File	AL-WWAK4_5_AL-WAS4_5.stp
EAN	4047106251031

Technical data	A-side	B-side	
Connector	female, angled, M12, with LED	male, straight, 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	30V	60V	
Current load (at 40°C)	4A	4A	
Insulation resistance	>=10 ⁸ Ω	>=10 ⁸ Ω	
Resistance	≤ 5mΩ	≤ 5mΩ	
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, transparent	Plastic, TPU, BK	
Coupling nut material	Metal, CuZn, nickel-plated	kel-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, S7400, robotic
Cable web	PUK, UL, SA

Flexible, silicone- and halogen free control cable with high mechanical strength. Due to its outstanding properties in drag-chain adaption, torsionresistance and weld-field immunity, it is very well suited for the flexible applications in robotics, handling- and assembly technology as well as machine tools. The cable meets the UL and CSA (UL10493/20549; cULus) requirements.

Outer diameter of jacket 5.60 mm Cable-jacket material PUR Jacket color OG, similar RAL2003 Wire cross-section 5 x 0.34 mm² Wire insulation material PP Wire colors BN, WH, BU, BK, GY 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 ≥ 10 Mio. cycles Halogen-free Yes Tosion +/-360°m, ≥ 10 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, drain-adapted, welding sparks resistant, seawater resistant, sliicone free, hydrolysis proof, LABS free, oil resistant, ozone resistant, uv resistant, uv resistant, very resistant, very deling sparks resistant, seawater resistant, ozone resistant, uv resistant, uv resistant, very resistant, very deling sparks resistant, seawater resistant, sliicone free, hydrolysis proof, LABS free, oil resistant, ozone resistant, very deling sparks resistant, seawater resistant, ozone resistant, very deling sparks resistant, seaw			
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Wire cross-section 5 x 0.34 mm² Wire insulation material PP Wire colors BN, WH, BU, BK, GY 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 ≥ 10 Mio. cycles Halogen-free Yes Torsion +/-360°/m, ≥ 10 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,	Cable-jacket material	PUR	
Wire insulation material PP Wire colors BN, WH, BU, BK, GY 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 ≥ 10 Mio. cycles Halogen-free Yes Tosion +/-360°/m, ≥ 10 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,	Jacket color	OG, similar RAL2003	
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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 ≥ 10 Mio. cycles Halogen-free Yes Torsion +/-360°/m, ≥ 10 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,	Wire insulation material	PP	
Bending radius (fixed) Bending radius (repeated) Temperature range (repeated) Temperature range (fixed) Temperature range (fixed) Temperature range (fixed) Temperature range (drag chain) Temperature range (fixed) Te	Wire colors	BN, WH, BU, BK, GY	
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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,	Halogen-free	Yes	
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	+/-360°/m, ≥ 10 Mio. cycles	
ozone resistant, recyclable, RoHs compliant, acid- and alkali resistant, drag chain-adapted, welding sparks resistant, seawater resistant, silicone free,	Rated voltage cable	≤300 V	
	Special features	ozone resistant, recyclable, RoHs compliant, acid- and alkali resistant, drag chain-adapted, welding sparks resistant, seawater resistant, silicone free,	

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

n/products/standard/accessories-for-connectivity/8047660

Torque-wrench set https://www.escha.net/en/products/standard/accessories-for-connectivity/8055431 $\label{lem:marking} Marking\ rings\ \varnothing\ 9mm \\ \ \text{https://www.escha.net/en/products/standard/accessories-for-connectivity?p=1\&o=3\&n=15\&f=809}$

 $Screw\ plug,\ M12 \\ \text{https://www.escha.net/er/products/standard/accessories-for-connectivity?} p=1\&o=3\&n=15\&f=812 \\$

 $Screw\ cap,\ M12 \\ https://www.escha.net/en/products/standard/accessories-for-connectivity?p=1\&o=3\&n=15\&f=811$