

Connectivity solutions facilitating a safe and reliable power transmission based on the standardized M12x1 interface – predestined for compact and decentralized components.

M12x1 **POWER**

12A/630V_{AC} | S-coded

12A/63V_{DC} | T-coded

Wire cross-section 1.5 mm² and 2.5 mm²

IEC 61076-2-111

Degree of protection IP67/IP69K

ESCHA Bauelemente GmbH

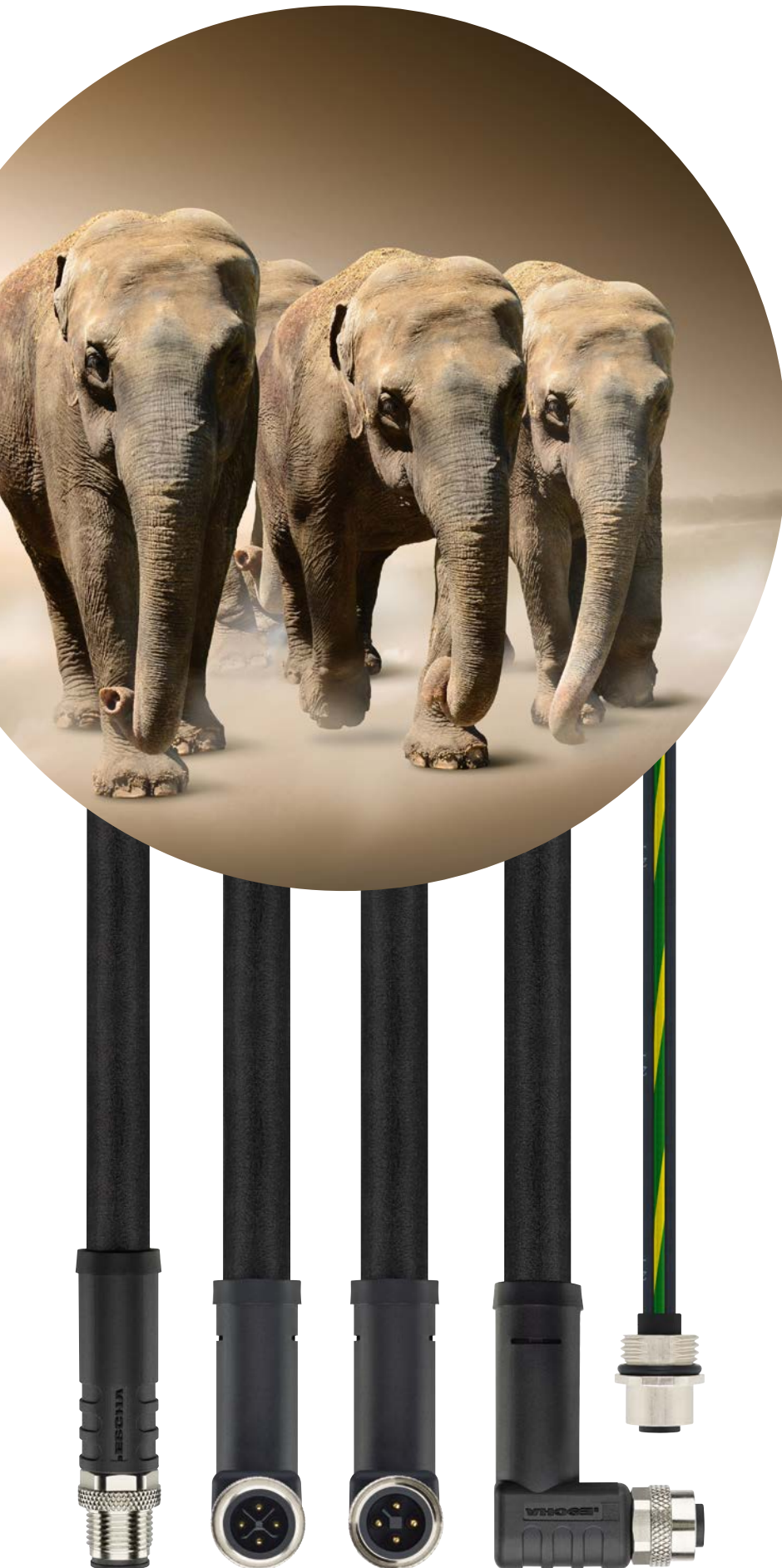
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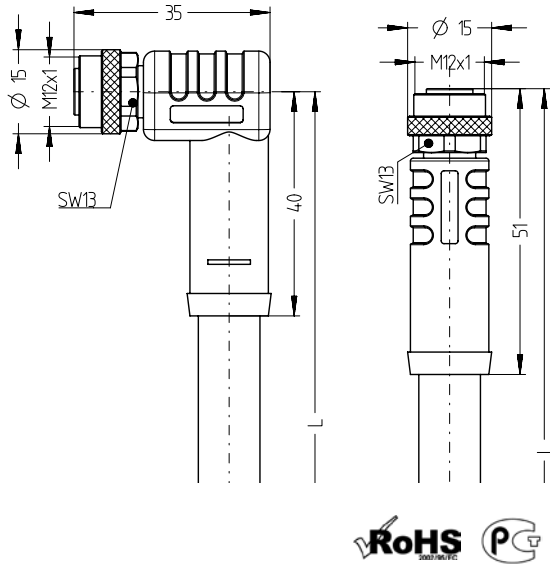
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PS-	A	M12	K	3.002-	L /	S5015
				Cable quality		
				Cable length [m]		
				Number of pins. Pin assignment		
				K: female		
				S: male		
				Round connector M12x1		
				A: straight↑ W: angled ↗		
				M12x1 POWER PS: S-coded		
				PT: T-coded		



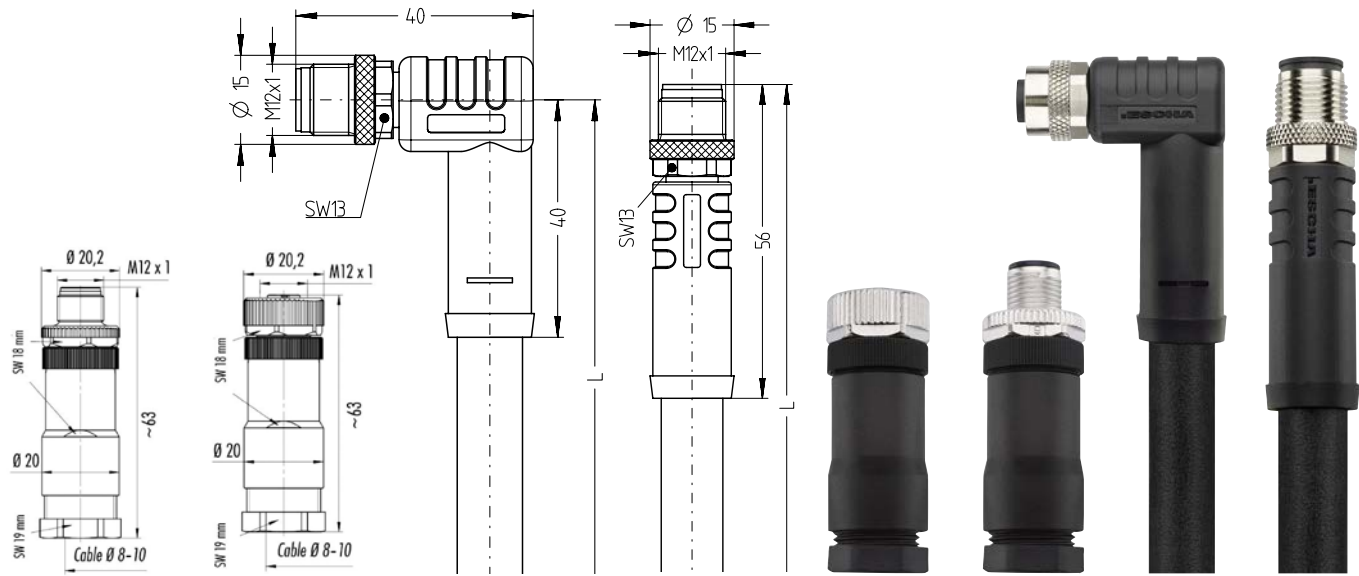
Product line	Cable quality	Version	Pins	Item-designation		Cable length L		
						2m	5m	10m
POWER S-coded	PUR S5015 [®]	f ↑	2+PE	PS-AM12K3.002-L /S5015		8064011	8064012	8064013
		f ↗	2+PE	PS-WM12K3.002-L /S5015		8064014	8064015	8064016
		m ↑	2+PE	PS-AM12S3.002-L /S5015		8064017	8064018	8064019
		m ↗	2+PE	PS-WM12S3.002-L /S5015		8064020	8064021	8064022
	field-wireable	f ↑	4	PS-WAKC4K	8063399			
	field-wireable	m ↑	4	PS-WASC4K	8063400			
POWER T-coded	PUR S5015 [®]	f ↑	4	PT-AM12K4-L /S5015		8063986	8063987	8063988
		f ↗	4	PT-WM12K4-L /S5015		8063989	8063990	8063991
		m ↑	4	PT-AM12S4-L /S5015		8063992	8063993	8063994
		m ↗	4	PT-WM12S4-L /S5015		8063998	8063997	8063995
	PUR S5025 [®]	f ↑	4	PT-AM12K4-L /S5025		8063962	8063963	8063964
		f ↗	4	PT-WM12K4-L /S5025		8063965	8063966	8063967
		m ↑	4	PT-AM12S4-L /S5025		8063968	8063969	8063970
		m ↗	4	PT-WM12S4-L /S5025		8063971	8063972	8063973
	field-wireable	f ↑	4	PT-WAKC4K	8063398			
	field-wireable	m ↑	4	PT-WASC4K	8063397			

Other versions, cable-lengths or cable terminals converted with wire-end sleeves are available upon request

Cable quality

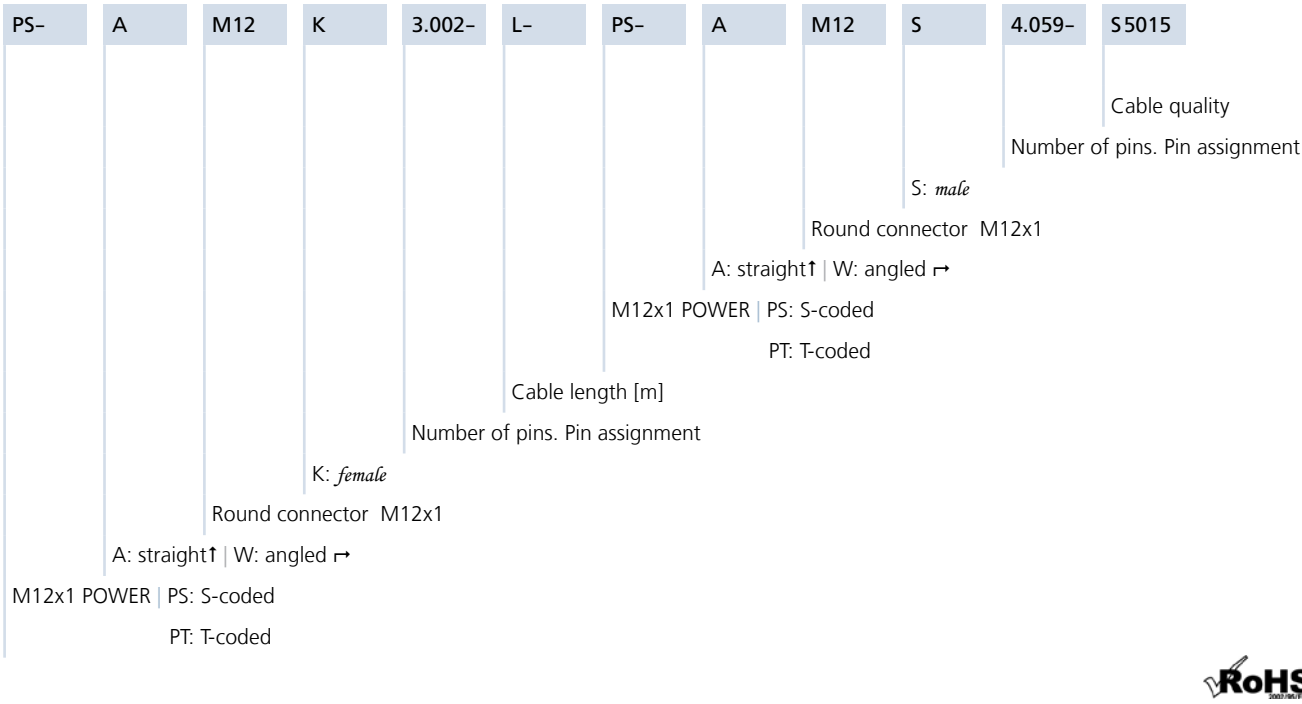
High flexible and oil-resistant, halogen-free control cables for fixed-wired dynamic drag-chain applications (a=50m/s²) with average loads. The PUR outer jacket is firm and resistant to high mechanical stresses like grinding or abrasion. They are adapted for applications in automation, load circuits of industrial machinery, automatic assembly- and placement machinery, especially in wet areas of machine tools and transfer lines. The cables meet the UL and CSA requirements.

Wire cross-section: S5015[®] | 1.5mm²
S5025[®] | 2.5mm²



M12x1 POWER connection cables		
Technical data	Round-connector	Field-wireable
Rated voltage [U _{max}]	S: 630V _{AC} T: 63V _{DC}	S: 630V _{AC} T: 60V _{DC}
Current load [I _{max}]	12A	12A
Insulation resistance	≥10 ⁸ Ω	≥10 ⁸ Ω
Standards	IEC 61076-2-111	IEC 61076-2-111
Materials	Grip body: TPU, BK Contact carrier: TPU, BK Sealing: FPM/FKM Contacts: CuZn, gold-plated Coupling nut: CuZn, nickel-plated	PA, BK PA, BK FPM/FKM CuZn, gold-plated
Ambient temperature	-30°C...+90°C	-40°C...+85°C
Degree of pollution	2	3
Degree of protection (installed)	IP67, IP69K	IP67
Mechanical life cycle	>100 mating cycles	>100 mating cycles
Outer diameter of cable		8...10mm
Wire cross section/Clamping ability		1.5mm²
Connecting type		screw/clamp

S-coding		T-coding	
2+PE (3.002) female	2+PE (3.002) male	4 pins female	4 pins male
1 BN 2 n.c. 3 BU PE: GNYE	1 BN 2 n.c. 3 BU PE: GNYE	1 BN 2 WH 3 BU 4 BK	1 BN 2 WH 3 BU 4 BK



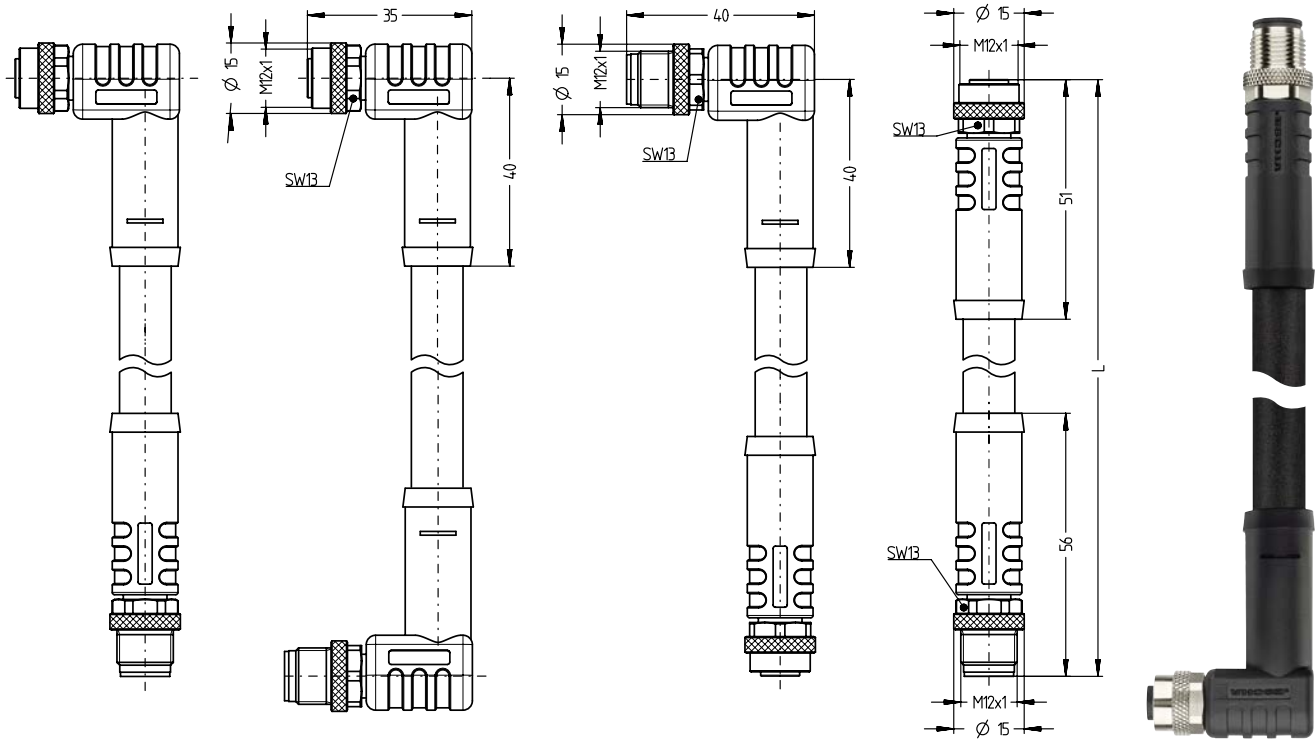
Product line	Cable quality	Version	Pins	Item-designation	Cable length L		
					1m	2m	5m
POWER S-coded	PUR S5015 [®]	<i>f</i> ↑ __ <i>m</i> ↑	2+PE	PS-AM12K3.002-L-PS-AM12S3.002/S5015	8063999	8064000	8064001
		<i>f</i> ↑ __ <i>m</i> ↗	2+PE	PS-AM12K3.002-L-PS-WM12S3.002/S5015	8064002	8064003	8064004
		<i>f</i> ↗ __ <i>m</i> ↑	2+PE	PS-WM12K3.002-L-PS-WM12S3.002/S5015	8064005	8064006	8064007
		<i>f</i> ↗ __ <i>m</i> ↗	2+PE	PS-WM12K3.002-L-PS-AM12S3.002/S5015	8064008	8064009	8064010
POWER T-coded	PUR S5015 [®]	<i>f</i> ↑ __ <i>m</i> ↑	4	PT-AM12K4-L-PT-AM12S4/S5015	8063974	8063975	8063976
		<i>f</i> ↑ __ <i>m</i> ↗	4	PT-AM12K4-L-PT-WM12S4/S5015	8063977	8063978	8063979
		<i>f</i> ↗ __ <i>m</i> ↑	4	PT-WM12K4-L-PT-AM12S4/S5015	8063983	8063984	8063985
		<i>f</i> ↗ __ <i>m</i> ↗	4	PT-WM12K4-L-PT-WM12S4/S5015	8063980	8063981	8063982
	PUR S5025 [®]	<i>f</i> ↑ __ <i>m</i> ↑	4	PT-AM12K4-L-PT-AM12S4/S5025	8063950	8063951	8063952
		<i>f</i> ↑ __ <i>m</i> ↗	4	PT-AM12K4-L-PT-WM12S4/S5025	8063953	8063954	8063955
		<i>f</i> ↗ __ <i>m</i> ↑	4	PT-WM12K4-L-PT-AM12S4/S5025	8063959	8063960	8063961
		<i>f</i> ↗ __ <i>m</i> ↗	4	PT-WM12K4-L-PT-WM12S4/S5025	8063956	8063957	8063958

Other versions, cable-lengths or cable terminals converted with wire-end sleeves are available upon request

Cable quality

High flexible and oil-resistant, halogen-free control cables for fixed-wired dynamic drag-chain applications (a=50m/s²) with average loads. The PUR outer jacket is firm and resistant to high mechanical stresses like grinding or abrasion. They are adapted for applications in automation, load circuits of industrial machinery, automatic assembly- and placement machinery, especially in wet areas of machine tools and transfer lines. The cables meet the UL and CSA requirements.

Wire cross-section: S5015[®] | 1.5mm²
S5025[®] | 2.5mm²



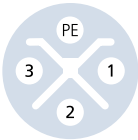
M12x1 POWER extension cables

Technical data

Rated voltage [U _{max}]	S: 630V _{AC} T: 63V _{DC}
Current load [I _{max}]	12 A
Insulation resistance	≥10 ⁸ Ω
Standards	IEC 61076-2-111
Materials	Grip body: TPU, BK Contact carrier: TPU, BK Sealing: FPM/FKM Contacts: CuZn, gold-plated Coupling nut: CuZn, nickel-plated
Ambient temperature	-30°C...+90°C
Degree of pollution	2
Degree of protection (installed)	IP67, IP69K
Mechanical life cycle	>100 mating cycles

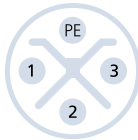
S-coding

2+PE (3.002) | female



1 BN | 2 n.c. | 3 BU | PE: GNYE

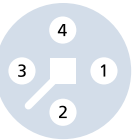
2+PE (3.002) | male



1 BN | 2 n.c. | 3 BU | PE: GNYE

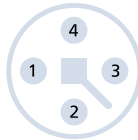
T-coding

4 pins | female



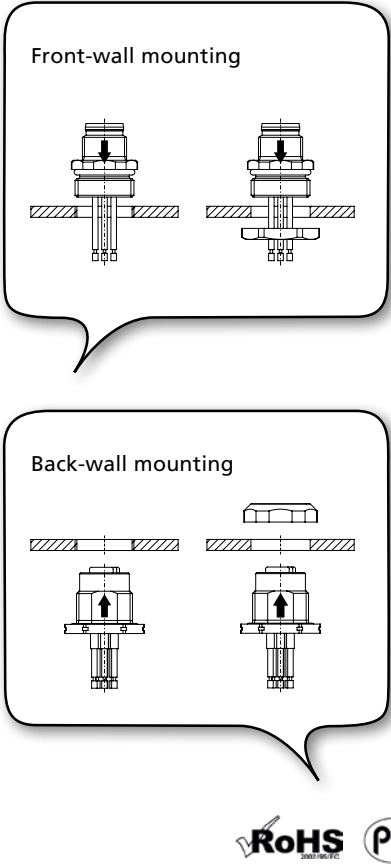
1 BN | 2 WH | 3 BU | 4 BK

4 pins | male



1 BN | 2 WH | 3 BU | 4 BK

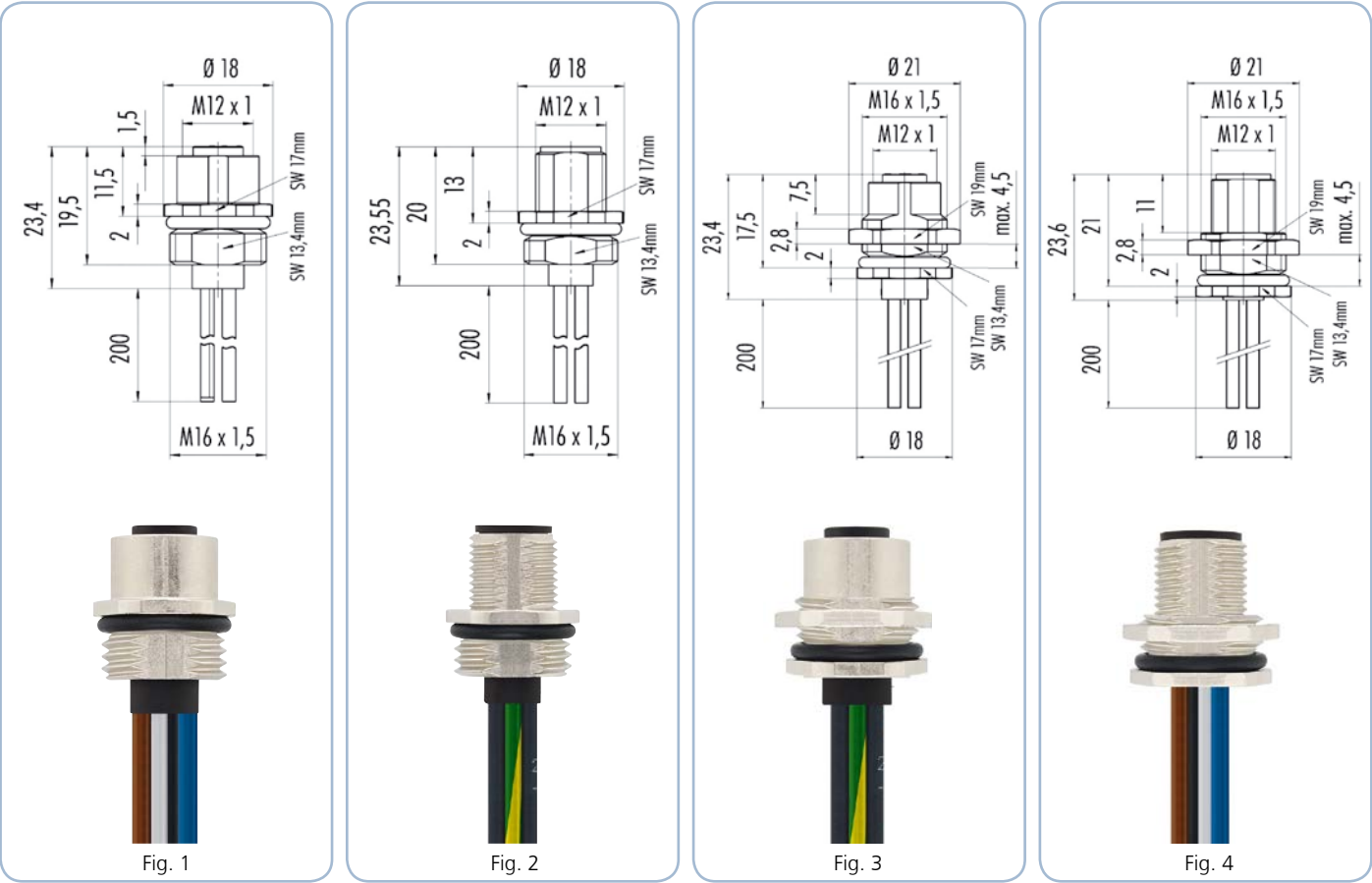
PS-	FV	M12	K	3.031-	0,2
				Cable length [m]	
				Number of pins. Pin assignment	
				K: female	
				S: male	
				Round connector M12x1	
				FV: Receptacle, front-wall mounting (optional threaded front)	
				FH: Receptacle, back-wall mounting (threaded front)	
M12x1 POWER PS: S-coded				PT: T-coded	



Product line	Version	Pins	Item-designation	Wire length L 0.2m
POWER Receptacles S-coded	Front-wall mounting	f ↑ 2+PE	Fig. 1 PS-FVM12K3.031-0,2	8064859
		m ↑ 2+PE	Fig. 2 PS-FVM12S3.031-0,2	8064858
	Back-wall mounting	f ↑ 2+PE	Fig. 3 PS-FHM12K3.031-0,2	8064861
		m ↑ 2+PE	Fig. 4 PS-FHM12S3.031-0,2	8064860
POWER Receptacles T-coded	Front-wall mounting	f ↑ 4	Fig. 1 PT-FVM12K4-0,2	8064855
		m ↑ 4	Fig. 2 PT-FVM12S4-0,2	8064854
	Back-wall mounting	f ↑ 4	Fig. 3 PT-FHM12K4-0,2	8064857
		m ↑ 4	Fig. 4 PT-FHM12S4-0,2	8064856

Other versions, wire-lengths are available upon request

Panel cut-out	Front-wall mounting	Back-wall mounting
with anti-twist safeguard		
with bore hole		
alternativ with thread to screw in		



M12x1 POWER | Receptacle connectors for housing assembly

Technical data	
Rated voltage [Umax]	S: 630V _{Ac} T: 63V _{Dc}
Current load [Imax]	12 A
Insulation resistance	≥10 ⁸ Ω
Standards	IEC 61076-2-111
Materials	Receptacle housing: Zinc diecasting Contact carrier: TPU, BK Contacts: CuZn, gold-plated
Ambient temperature	-40°C...+85°C
Degree of pollution	3
Degree of protection (installed)	IP67
Mechanical life cycle	>100 mating cycles
Wire cross-section	1.5mm ²

S-coding	T-coding
2+PE (3.031) female	4 pins female
2+PE (3.031) male	4 pins male
1 BK 2 n.c. 3 BK PE: GNYE	1 BN 2 WH 3 BU 4 BK



POWER | PUR | S5015[®]/S5025[®]

High flexible and oil-resistant, halogen-free control cables for fixed-wired dynamic drag-chain applications ($a=50\text{ m/s}^2$) with average loads. The PUR outer jacket is firm and resistant to high mechanical stresses like grinding or abrasion. They are adapted for applications in automation, load circuits of industrial machinery, automatic assembly- and placement machinery, especially in wet areas of machine tools and transfer lines. The cables meet the UL and CSA requirements.

Features	■	flame-retardant VDE0482-332-1-2, IEC 60332-1-2, UL VW-1, CSA FT2
	■	seawater-resistant
	■	recyclable
	■	LABS-free
	■	RoHs-compliant
	■	welding sparks resistant
	■	acids- and alkali resistant
	■	ozone-resistant EN50396, VDE0473-396 B
	■	UV-resistant EN ISO4892-2-2006 A
	■	microbes resistant
	■	high flexibility, drag-chain adapted ≤ 10 million cycles
	■	halogen-free VDE0472 Part 8 15
	■	oil resistant EN50363-10-2, VDE0207-363-10-2

Temperature range	operating	-40°C...+90°C (VDE) -40°C...+80°C (UL/CSA)
	fixed installation	-50°C...+90°C (VDE) -50°C...+80°C (UL/CSA)

Bending radius	repeated	S5015: 7,5x Ø-cable S5025: 10x Ø-cable
	fixed	4x Ø-cable

Rated voltage	VDE U ₀ /U: 600V/1000V
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Color outer-jacket	black similar RAL9005
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Wire-structure	VDE0295 EN/IEC60228, Class 6
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conductor	Cu, bare; extra finely stranded
insulation	PP, halogen-free
jacket	PUR, halogen-free

	Wire	Type	Wire-structure	Wire color	S5015 [®]		S5025 [®]	
					Ø - Jacket	100m cable Item-No:	Ø - Jacket	100m cable Item-No:
M12x1	2+PE	LiF9Y11YHF-JB 3x1,5	extra finely stranded Class 6	BN BU GNYE	8.5 mm	8064082		
	4	LiF9Y11YHF-OB 4x1,5	extra finely stranded Class 6	BN WH BU BK	9.6 mm	8064083		
	4	LiF9Y11YHF-OB 4x2,5	extra finely stranded Class 6	BN WH BU BK			11.0 mm	8064084