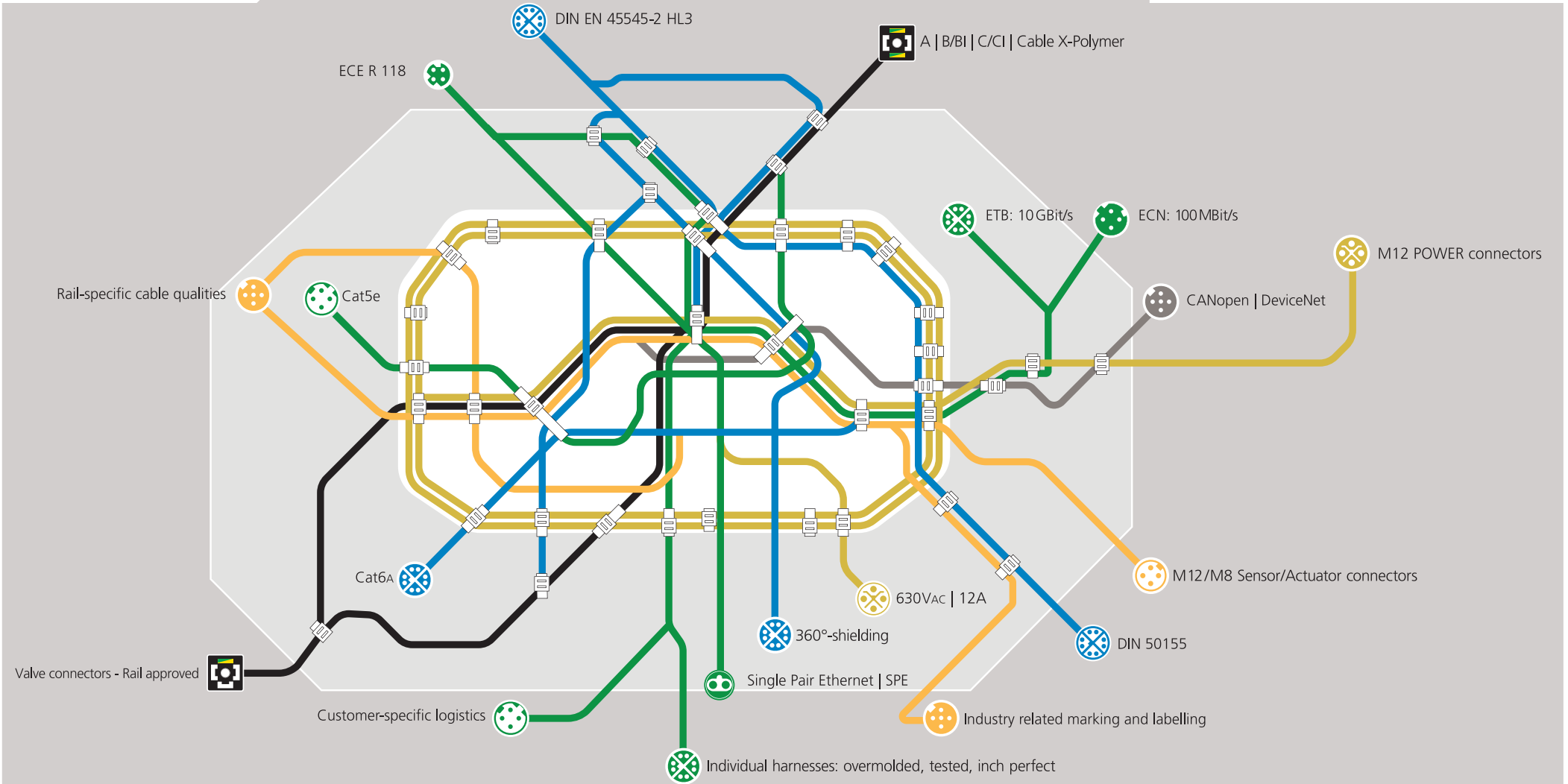
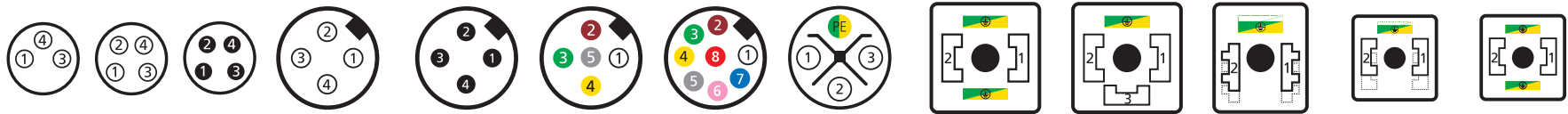




BERLIN 2024



**HAVE A SAVE RIDE |** Connectivity and Harnesses for Bus & Rail



SENSOR-/ACTUATOR		Round-connectors							Valve-connectors					
Cable	Housing style	M8			M12				M12 POWER	A		B/BI	C/CI	
		3 poles	4 poles	4 poles	4 poles A-coded	4 poles A-coded	5 poles A-coded	8 poles A-coded	3+PE S-coded	2+PE bridged	3+PE	2+PE	2+PE	2+PE bridged
RADOX® S3327 3x0.5mm²   BK	<i>fm</i> ↑↗ ⊙ <i>fm</i> ↑↗													
RADOX® S4500 4x0.5mm²   BK EN 50306-4	<i>fm</i> ↑↗ ⊙ <i>fm</i> ↑↗				<i>fm</i> ↑↗↘↙ ⊙ <i>fm</i> ↑↗↘↙									
RADOX® S4501 4x0.75mm²   BK EN 50306-4					<i>fm</i> ↑↗↘↙ ⊙ <i>fm</i> ↑↗↘↙									
RADOX® S4502 4x1.0mm²   BK EN 50306-4					<i>fm</i> ↑↗↘↙ ⊙ <i>fm</i> ↑↗↘↙									
SABIX® S5300 5x0.5mm²   GY						<i>fm</i> ↑↗↘↙ ⊙ <i>fm</i> ↑↗↘↙								
SABIX® S5550 8x0.25mm²   GY							<i>fm</i> ↑↗↘↙ ⊙ <i>fm</i> ↑↗↘↙							
CFSPECIAL S5555 4x0.34mm²   BK Drag-chain 1 Million			<i>fm</i> ↑↗		<i>fm</i> ↑↗↘↙									
RADOX® S4600 4G 1.5mm²   BK EN 50306-4								<i>fm</i> ↑↗ 630VAC (UL) 12A						
X-Polymer S5600 3G 0.75mm²   BK 4G 0.75mm²   BK									↘↙ 30V LED LED ✘	↘↙ 30V LED ✘	↘↙ 30V LED ✘		↘↙ 30V LED LED ✘	
									↘↙ 230V without LED ✘	↘↙ 230V without	↘↙ 230V without LED ✘	↘↙ 230V without		



DATA TRANSMISSION	100MBit / Cat5e		10GBit / Cat6A		CANopen DeviceNet
Cable	Housing style		M12	RJ45	M12
	4 poles D-coded	4	8 poles X-coded	8	5 poles A-coded
<b>Cat5e PUR</b> s2171 1 x 4 x AWG22   GN star quad	$\odot fm \uparrow \uparrow$	$\odot m \uparrow$			
<b>Cat5e RADOX®</b> s4002 1 x 4 x AWG22   BK star quad, reduced wire	$\odot fm \uparrow \uparrow \downarrow \downarrow$ $\odot f \uparrow \uparrow$	$\odot m \uparrow$			
<b>Cat5e RADOX®</b> s4002BU 1 x 4 x AWG22   BU star quad, reduced wire	$\odot fm \uparrow \uparrow \downarrow \downarrow$ $\odot f \uparrow \uparrow$	$\odot m \uparrow$			
<b>Cat5e RADOX®</b> s4003 1 x 4 x AWG22   BK star quad, robust	$\odot fm \uparrow \uparrow \downarrow \downarrow$ $\odot f \uparrow \uparrow$				
<b>Cat5e RADOX®</b> s4004 1 x 4 x AWG22   BU star quad, ECO	$\odot fm \uparrow \uparrow \downarrow \downarrow$ $\odot f \uparrow \uparrow$				
<b>Cat5e BETAtrans®</b> s5002BU 1 x 4 x AWG22   BU star quad, reduced wire	$\odot fm \uparrow \uparrow \downarrow \downarrow$ $\odot f \uparrow \uparrow$	$\odot m \uparrow$			
<b>Cat7 RADOX®</b> s4005 4 x 2 x AWG24   BU robust			$\odot m \uparrow$ $\odot f \uparrow$	$\odot m \uparrow$	
<b>Cat7 BETAtrans®</b> s5006VT 4 x 2 x AWG26   VT reduced wire			$\odot m \uparrow \uparrow \downarrow \downarrow$ $\odot f \uparrow$		
<b>FieldLink®</b> DeviceNet s2800 1x(2 x AWG24)+1x(2 x AWG22) BK   ECE R 118 $\odot$					$fm \uparrow \uparrow$



WITHOUT CABLE		10GBit / Cat6A	100MBit / Cat5e	Sensor-/Actuator	
Contact	Housing style		M12	M12	
	Mounting	8 poles X-coded	4 poles D-coded	4 poles A-coded	
Receptacles	Print	Front wall	$\odot (M12) \odot fm \uparrow$		
		Back wall	$\odot (M12) \odot fm \uparrow \uparrow$	$\odot (M12) \odot fm \uparrow \uparrow$	
	Wire	Front wall			$\odot (M12) fm \uparrow$
		Back wall			$\odot (M12) fm \uparrow$ $\odot (M16) fm \uparrow$
Field-wireable	Insulation displacement contact (IDC)	$\odot m \uparrow$	$\odot m \uparrow$		
	Crimp contact necessary accessories*		$\odot m \uparrow$	$\odot m \uparrow$	
Adapter	Adapter Panel feed through Back wall	$\odot f \uparrow \uparrow \_ RJ45$ $\odot f \uparrow \_ \odot f \uparrow$	$\odot f \uparrow \uparrow \_ RJ45$ $\odot f \uparrow \_ \odot f \uparrow$		
	Wiring connector / Cat7	IDC Ø 5.0 - 9.7mm			

\* necessary accessories: seals and connector pins for different diameters, crimping tool.

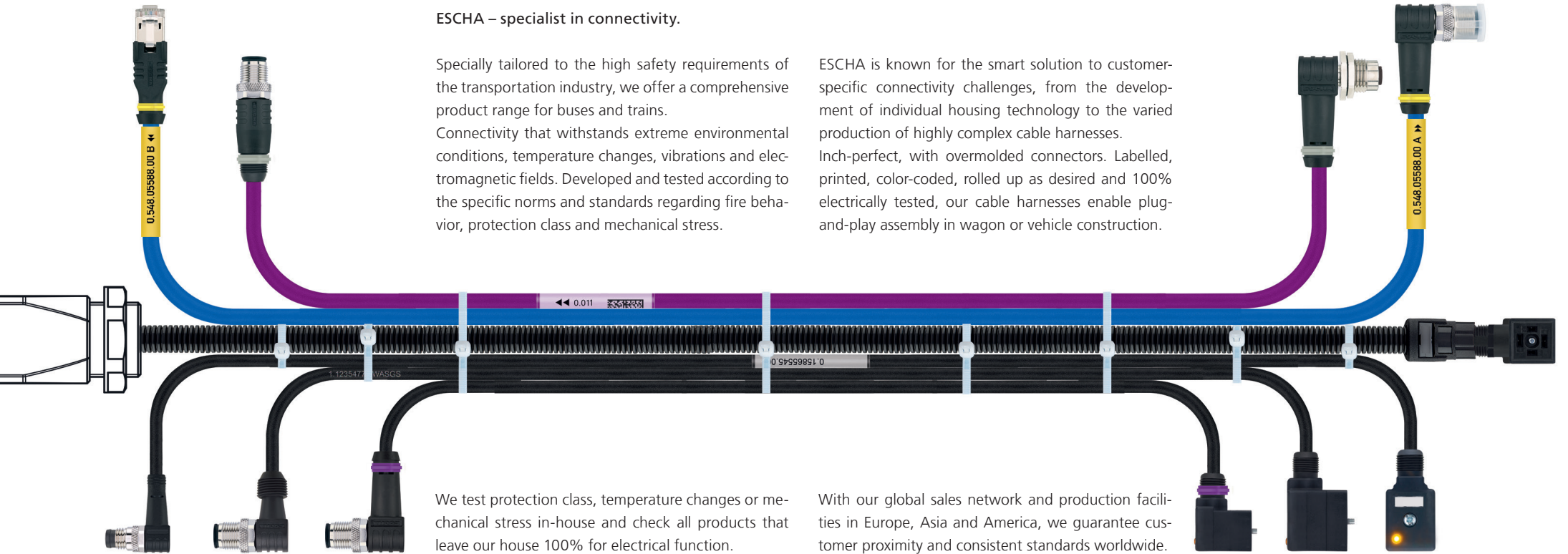
We also offer a comprehensive range of dust caps/plugs, fastening clips, spare nuts, color-coded accessories, installation tools such as stripping tools and torque wrenches.

Legend	<i>f</i> female	$\downarrow$ Grip body with thread straight	$\odot$ shielded	without	without LED & circuit
<i>m</i> male	$\uparrow$ straight	$\downarrow$ Grip body with thread angled	$\odot (M12)$ M12 fastening thread	$\times$ circuit: suppressor diode	$\times$ circuit: Z-Diode
$\uparrow$ angled	$\uparrow$ straight	$\uparrow$ Receptacles straight	$\odot (M16)$ M16 fastening thread	$\times$ circuit: varistor	
$\uparrow$ angled	$\uparrow$ angled	$\uparrow$ Receptacles angled			

ESCHA – specialist in connectivity.

Specially tailored to the high safety requirements of the transportation industry, we offer a comprehensive product range for buses and trains. Connectivity that withstands extreme environmental conditions, temperature changes, vibrations and electromagnetic fields. Developed and tested according to the specific norms and standards regarding fire behavior, protection class and mechanical stress.

ESCHA is known for the smart solution to customer-specific connectivity challenges, from the development of individual housing technology to the varied production of highly complex cable harnesses. Inch-perfect, with overmolded connectors. Labelled, printed, color-coded, rolled up as desired and 100% electrically tested, our cable harnesses enable plug-and-play assembly in wagon or vehicle construction.



We test protection class, temperature changes or mechanical stress in-house and check all products that leave our house 100% for electrical function.

With our global sales network and production facilities in Europe, Asia and America, we guarantee customer proximity and consistent standards worldwide.

