

# Advanced Shielding Technology

Designed by PHOENIX CONTACT

**The new dimension of shielding  
for assembled M8 and M12  
circular connectors**



CBF230038

# Change of D-coded cable assemblies to Advanced shielding technology

Advanced Shielding Technology from Phoenix Contact is the innovative shielding concept for sensor/actuator cabling. The large-area, material-bonding 360° shield connection is unique on the market and optimizes the current design of M8 and M12 connectors.

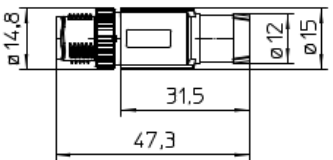
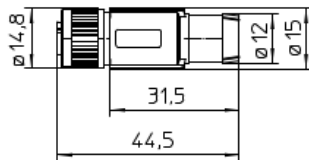
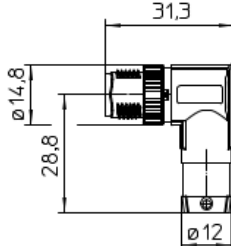
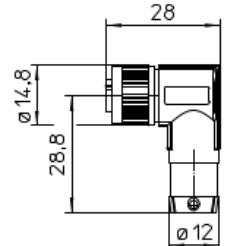
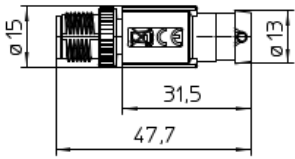
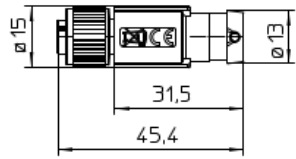
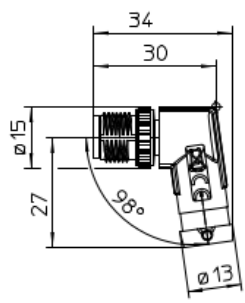
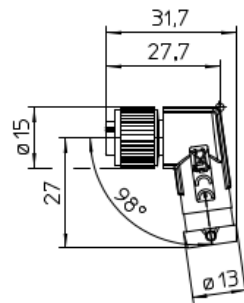
With Advanced Shielding Technology you are investing in reliable data, signal, and power transmission for the factory automation of the future.

The next slides show you the change of the current design of D-coded cable assemblies and describe the advantages of the unique Advanced Shielding Technology.

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# Change of D-coded cable assemblies to Advanced shielding technology

## Size of the connector heads

current design			
			
new AST design			
			

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# Change of D-coded cable assemblies to Advanced shielding technology

Speedcon to Standard M12 thread



Current design



New design

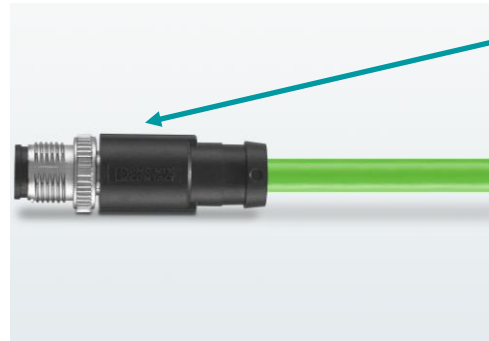
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# Change of D-coded cable assemblies to Advanced shielding technology

CE and WEEE mark



Current design



New design



Additional to the brand logo of Phoenix Contact, the grip body gets the CE mark and the WEEE logo to be compliant with the European regulations.

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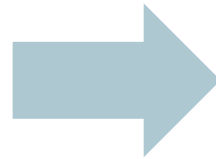
# Change of D-coded cable assemblies to Advanced shielding technology

## Article description from Speedcon to Standard M12

In case of the change from Speedcon to Standard M12 knurl, the article description has to be changed.

Example:

NBC-MSD/ 5,0-93E/MSD SCO



NBC-M12MSD/ 5,0-93E/M12MSD

The new descriptions of each articles are included in the attached excel sheet.

How it all started

# Current shielding concept

Cut cable



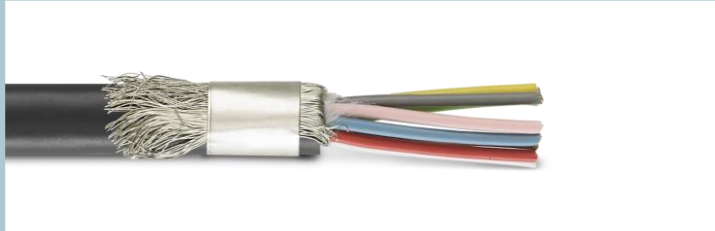
Brush shield



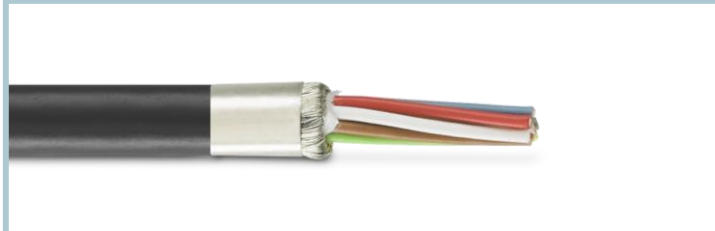
Push it over the cable jacket



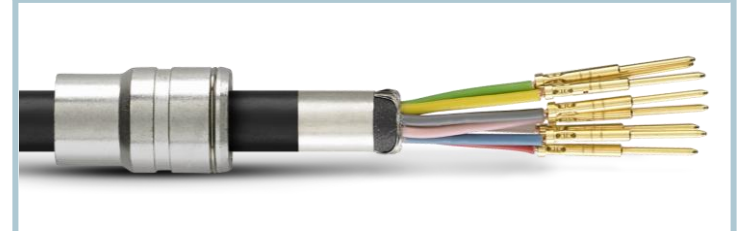
Paste a foil on the cable



Cut the shield



Fit the shield sleeve on the cable



Prepare hand press



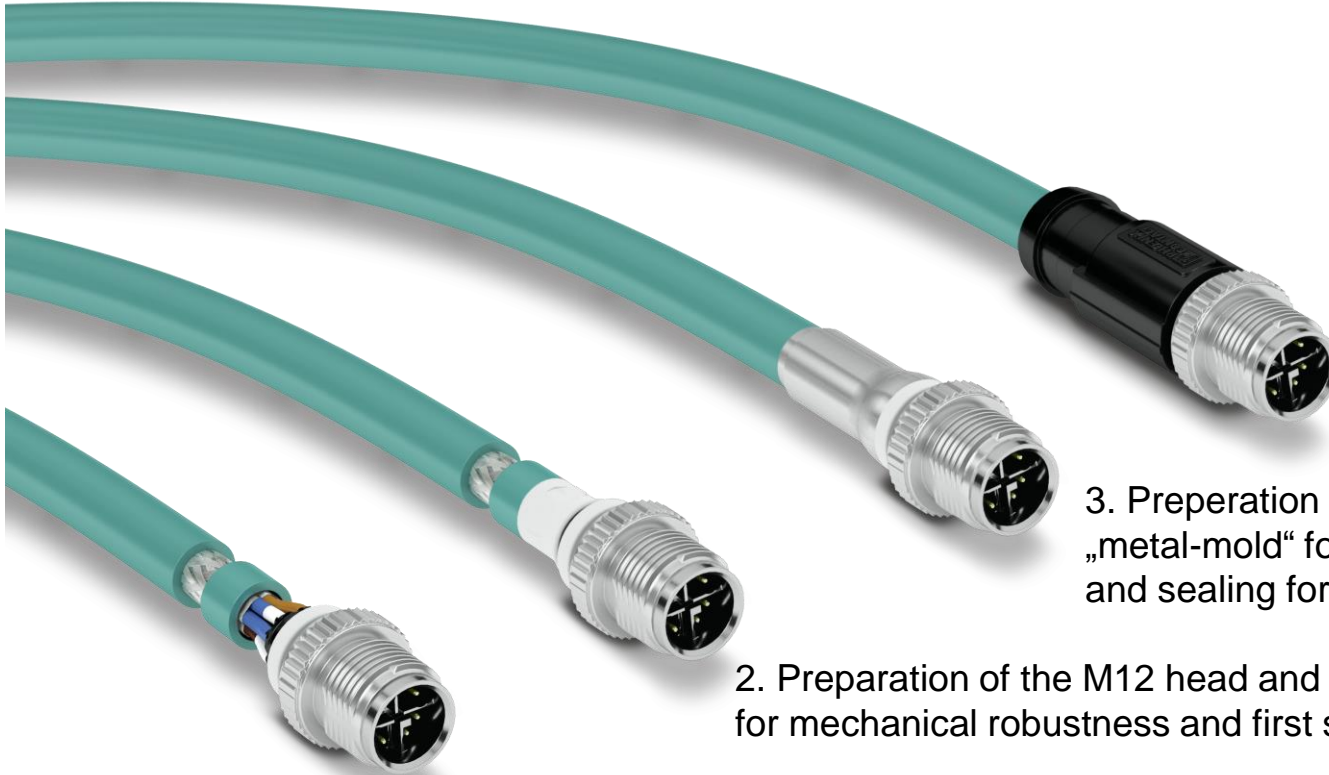
Crimp the lid



7 \*Please note that the realization regarding the coding is the same even M12 x-coded is shown in the illustrations

Presentation of the new shielding concept

# Realization



1. Assembling of the M12 head with standard crimp contacts

2. Preparation of the M12 head and wires with the special „pre-mold“ for mechanical robustness and first sealing for IP protection

3. Preparation of the M12 head and cables with the special „metal-mold“ for 360° shielding connection, mechanical robustness and sealing for IP protection

4. Preparation of the M12 handle body with standard overmolding

\*Please note that the realization regarding the coding is the same even M12 x-coded is shown in the illustrations

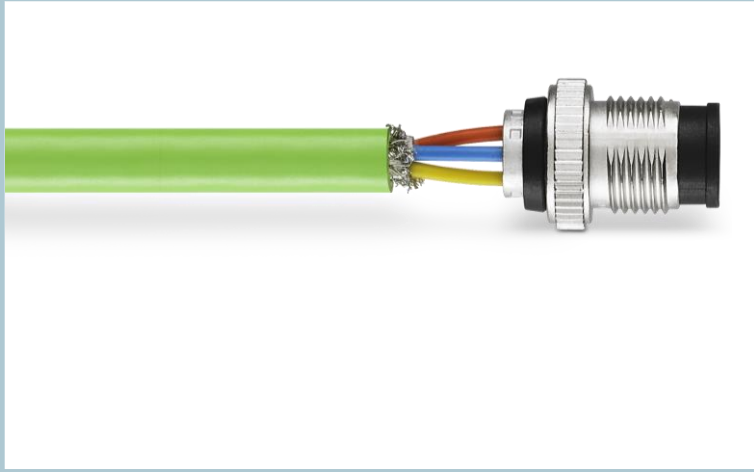


Presentation of the new shielding concept

# Realization



Cable Preparation



Pre-Mold



Metal-Mold



The ideal shield sleeve does not require a crimp

**Totally reliable**  
at high mechanical loads

**Totally protected**  
Optimum heat dissipation and safe current flow



**Totally robust**  
even when exposed to extreme environmental influences

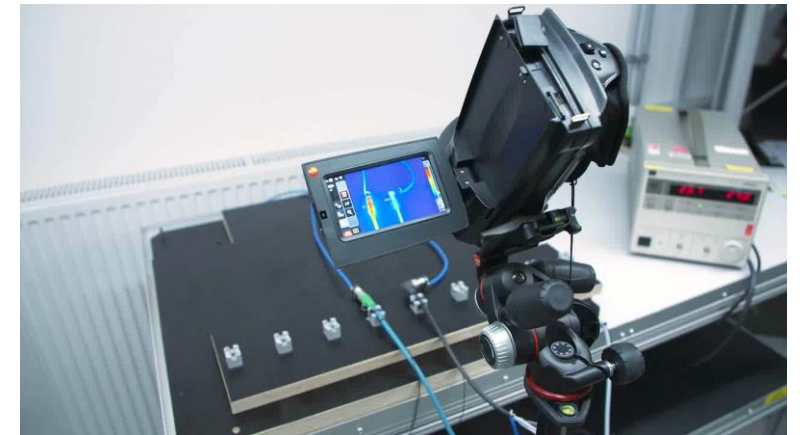
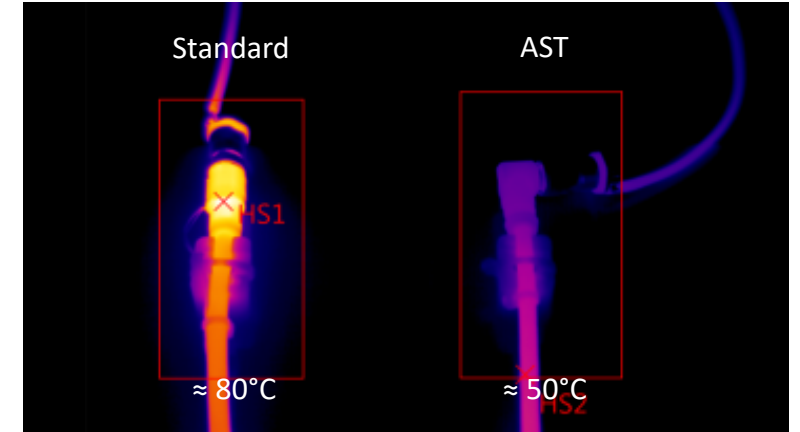
**Totally Future-proof**  
data transmission and reliable EMC protection

**Totally resistant**  
to transient overvoltages



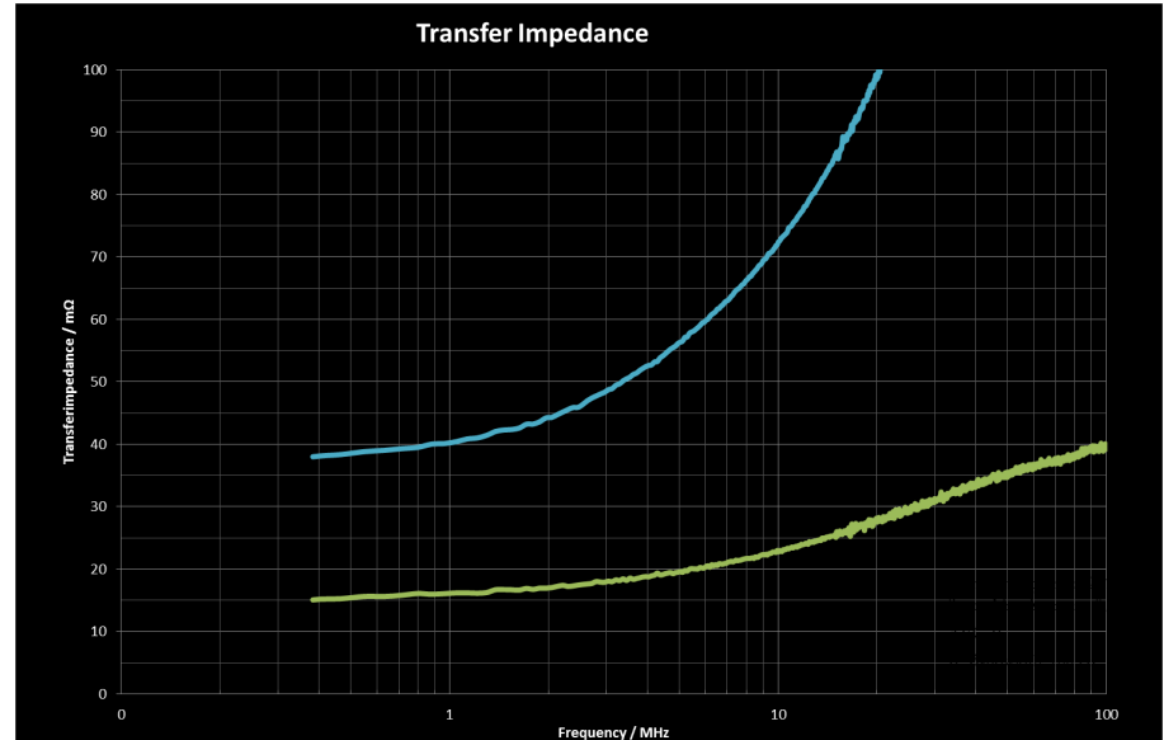
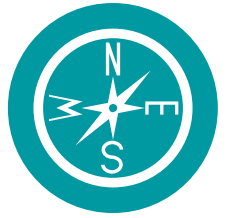
# Totally protected

If there is a short circuit in the machine parts, Advanced Shielding Technology can be used to enable a current to flow via the shield until the fuses are triggered. Thanks to the minimal generation of heat, the large-area shielding ensures greater safety and reduces the risk of fire.



# Totally future-proof

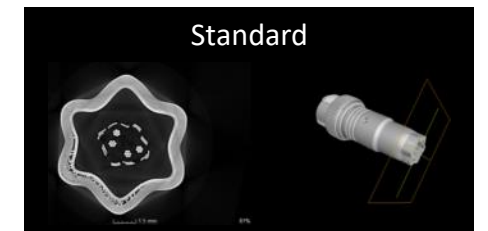
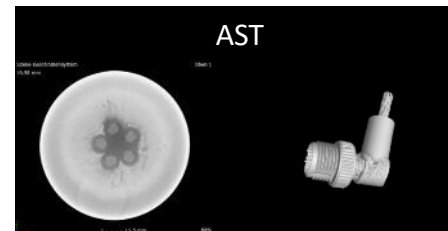
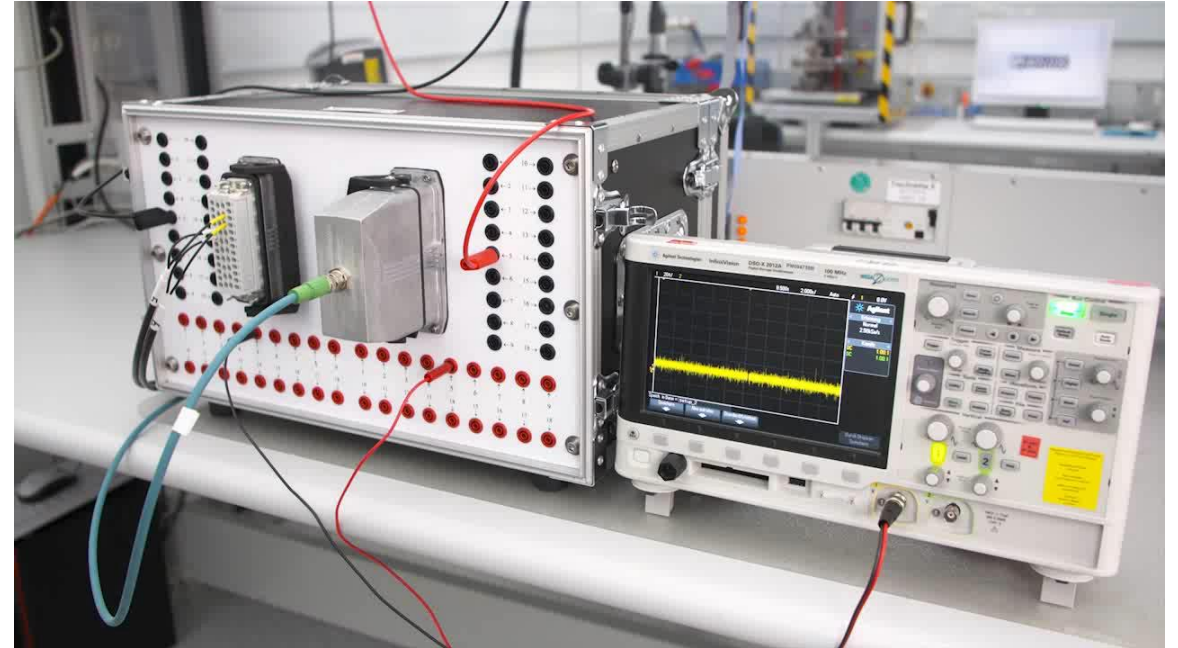
In the field of intelligent production plants and industrial networks, Advanced Shielding Technology realizes the future-proof transmission of high data volumes and continuously increasing transmission rates of up to 40 Gbps. The improved shield dissipation thus provides secure protection against electromagnetic interferences.



Advanced Shielding Technology

# Totally reliable

Advanced Shielding Technology guarantees shock- and vibration-resistance at high mechanical loads in torsion, drag chain or robotic applications.



Advanced Shielding Technology

## Totally resistant

High voltages are briefly generated when switching inductive loads such as motors. Thanks to the continuous connection between the shielding braid and plug, assembled connectors with Advanced Shielding Technology are resistant to transient overvoltages and guarantee a higher level of system availability.



Advanced Shielding Technology

## Totally robust

Thanks to the robust connection and 360° shield cover, connectors with Advanced Shielding Technology will easily even withstand lightning strikes and current peaks up to 20 kA. They are thus particularly suitable for use in outdoor applications.



# Advanced Shielding Technology

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**Further information under:  
[www.phoenixcontact.com/webcode/#2253](http://www.phoenixcontact.com/webcode/#2253)**

