

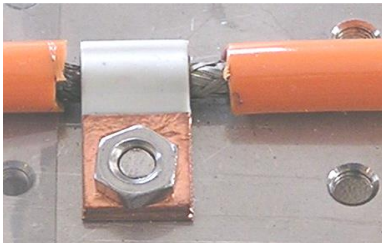
# CMS/LiYCM11YÖ 6 x 0,14 mm<sup>2</sup>

EMC signal cable with attenuation of sheath currents

## EMC signal line with attenuation

- Ferrite coating: EMC / COM
- Shielding via tinned annealed copper
- Conductor resistance (DC):  
max. 160 Ω/km at 20 °C

**Customer Opinion:**  
"Problem-solving cable" for  
EMC-related signal problems.



Example of a ground  
connection with the EMC  
cable clamp ERSC-3 M4



Ferrite coating:  
EMC / COM  
Ferrite layer

Outer jacket:  
Polyurethane compound  
TMPU



## Overview

When a cable is subject to electromagnetic interference radiation, the electric field component is mainly reflected, while the magnetic field component is partially attenuated by creating eddy currents on the surface of the shielding. The ferrite-filled material (EMC/COM) on the shielding braid of a shielded cable causes considerable attenuation of the sheath currents on the braid.

The effect is comparable to placing ferrite rings around the cable. However, the homogeneous ferrite layer does not cause sudden changes in impedance, thus avoiding reflections. These CMS cables are used in all cases where asymmetric interference (common mode) or surface currents cause problems.

## Key facts

- Particularly good shielding against electromagnetic radiation
- For asymmetrical flows and surface currents
- Extreme mechanical resistance (abrasion-, tearing-, notch-, pressure and wear resistant)
- Good chemical resistance (gasoline, oil, grease) and environmental influences (ozone, UV, water...)



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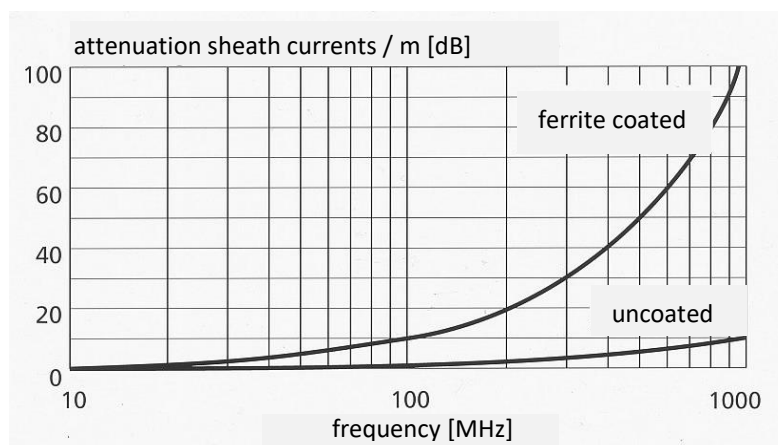
## Technical data

### CMS/LiYCM11YÖ 6 x 0,14

|                               |   |
|-------------------------------|---|
| Conductor                     | tinned annealed copper,<br>grade 5<br>Ø ~ 0,5 mm;<br>cable section:<br>6x 0.14 mm <sup>2</sup><br>conductor shape: 12x0.12 mm |
| Conductor resistance (DC)     | max. 160 Ω/km at 20 °C  |
| Insulation                    | PVC<br>(thickness:<br>nominal 0.25 mm /<br>minimum 0.20 mm)<br>Ø over isolation:<br>1,0 mm (- 0,05/+ 0,2)                     |
| Insulation resistance at 20°C | ≥ 100 MΩ*km<br>(core/screen)  |
| Core colors                   | according to DIN 47100:<br>white, brown, green,<br>yellow, gray, pink   |

|  |   |
|--|---|
| Assembly                                       | cores are laid-up<br>concentrically   |
| Shielding                                      | tinned copper wire<br>braid;<br>wire nom. Ø:<br>max. 0.15 mm<br>coverage > 75%<br>(indicative value)  |
| Diameter over screen                           | 3,6 ± 0,2 mm  |
| Ferrite coating                                | extruded EMC<br>ferrite layer   |
| Outer sheath                                   | polyurethane mixture<br>TMPU according to<br>EN 50525-21<br>color: orange; matte<br>Ø 6.5 mm (+ 0.4 / - 0.3)<br>bending radius:<br>minimum<br>8x outer diameter |
| Operating temperature during laying / handling | -30 °C to 70 °C<br>-30 °C to 50 °C  |
| Weight net                                     | ~ 75 kg/km  |
| Operating voltage                              | max. 300 V AC   |
| Service voltage                                | 1,5 kV AC / 5'  |

## Technical data II



All information regarding appearance and technical data correspond to the current state of development at the time of release of this data sheet. We reserve the right to make technical changes. *TF 16352\_REV1x\_252201* 162302

