



AC - 112 / 113 Signal cables

1 Application

Multi-core measurement and data cables with especially low cable capacitance for transmission of static and dynamic measured signals.

2 Design

AC-112

4-core stranded cable with foil and braided shield

Core colours: white, yellow, red, black

AC-113

6-channel each with 4-core stranded cables; Foil shield for each channel,

Overall shield (braided) for all channels, with drain wire

Core colours: white, yellow, red, black

Each channel identified with channel number (1 - 6),

Drain wire: orange

Signal cable	AC-112	AC-113
External insulation	PVC, flame-resistant	PE, halogen free
External colour	black	black
External insulation diameter	approx. 8 mm	approx. 18 mm
Bending radius	≥ 80 mm	≥ 135 mm
Conductor	0,5 mm ² , Cu	0,5 mm ² , Cu
Standard description	Li2Y-St / C-Y	RE-2Y (St+C)H 6 x 4 x 0,5 mm ² ViMF

2.1 Electrical characteristics

Signal cable	AC-112	AC-113
Operating voltage	max. 250 V	max. 300 V
Conductor resistance	max. 39 Ω / km	max. 37 Ω / km
Cable capacity	max. 70 nF / km measured: core against core, remaining core and screen open	ca. 130 nF / km measured: core against core, remaining core and screen open
Test voltage	1000 V, AC measured: core against screen	1000 V, AC measured: core against screen
Inductivity	approx. 0,85 mH / km	approx. 0,70 mH / km

2.1.1 Permissible ambient temperature

with fixed installation -25 °C ... + 70 °C

2.1.2 Tips for laying the cable

- Ensure that the laying and connecting of cables is done only by personnel qualified in electrical cabling techniques.
- Protect the cable against mechanical damage (e.g. crushing, stretching, kinking of the cable and rubbing of the insulation).
- Observe the permissible bending radius !
- Keep at least 1 metre distance between signal cables and power cables.
- Signal cables should cross power cables only at right-angles.
- Make contact with the shield over the largest possible area.
- Observe the connection instructions of the respective instrument handbook.

