



## AC - 114 / 180 / 181 / 186 / 188

Signal cables for installations in Ex-areas according to VDE 0165

Signal cable	AC - 114	AC-180	AC-181	AC-186	AC-188
<b>Design</b>	4 x 0.5 mm <sup>2</sup> , Foil shield, Braided shield	3 x 0.75 mm <sup>2</sup> , Braided shield	2 x 0.75 mm <sup>2</sup> , Braided shield	2 x 0.75 mm <sup>2</sup> , Braided shield	3 x 0.5 mm <sup>2</sup> , Braided shield
<b>External insulation</b>	PVC, flame-resistant	PVC	PVC	PVC	PTFE
<b>External insulation diameter</b>	approx. 8 mm	approx. 7 mm	approx. 7 mm	approx. 6,5 mm	approx. 5 mm
<b>Bending radius</b>	≥ 80 mm	≥ 70 mm	≥ 105 mm	≥ 60 mm	≥ 80 mm
<b>Conductor</b>	Cu	Cu	Cu	Cu	Cu
<b>Core colours</b>	BK, WH, RD, YE	BU, BN, GN/YE	WH, BN	BK, BU	WH, RD, YE
<b>External colour</b>	blue	grey	grey	grey	blue
<b>Standard description</b>	Li2Y-St / C-Y	(N) YLHCY-J	LiYCY	(N) YLHCY-O	—

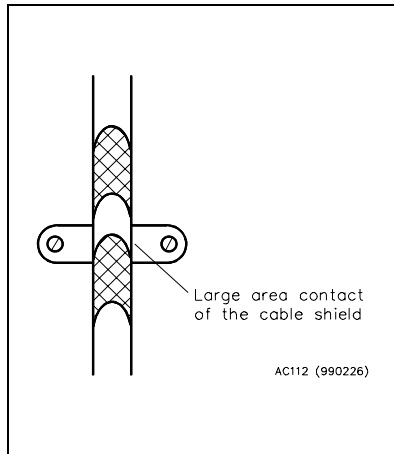
### Permissible ambient temperature

<b>with fixed installation</b>	-5 °C ... + 70 °C	-10 °C ... + 80 °C	-5 °C ... + 80 °C	-10 °C ... + 80 °C	-50 °C ... + 200 °C
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## Electrical characteristics

Signal cable	AC - 114	AC-180	AC-181	AC-186	AC-188
<b>Operating voltage</b>	max. 250 V	max. 380 V	max. 375 V	max. 380 V	max. 300 V
<b>Conductor resistance</b>	max. 39 $\Omega$ / km	max. 26 $\Omega$ / km	max. 25 $\Omega$ / km	max. 26 $\Omega$ / km	max. 39 $\Omega$ / km
<b>Test voltage</b>	1000 V, AC	1500 V, AC measured: core against screen 2000 V, AC measured: core against core	2000 V, AC measured: screen against core	1500 V, AC measured: core against screen 2000 V, AC measured: core against core	500 V, AC measured: core against screen
<b>Cable capacity</b>	max. 70 nF / km measured: core against core, remaining core and screen open	approx. 200 nF / km measured: 2 core against remaining cores and screen approx. 80 nF / km measured: core against core, remaining core and screen open	approx. 150 nF / km measured: core against core, screen open	approx. 80 nF / km measured: core against core, screen open	approx. 120 nF / km measured: 2 core against remaining cores and screen approx. 75 nF / km measured: core against core, remaining core and screen open
<b>Inductivity</b>	approx. 0.85 mH/km	approx. 125 mH / km	approx. 120 mH / km	approx. 125 mH / km	approx. 0.7 mH / km
<b>Ex- area installation</b>	Ex i	Ex e	Sch	Ex e	Ex e

## Tips for laying the cable



- ***With installations of cables in the explosive area it is mandatory to observe the relevant national and international standards, guidelines and prescriptions.***
- 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.