

SOLARIXPEDIA

How-to: Installing Data cables Directly under the Plaster?



Data cables must be routed in a proper **cable route** - e.g. in **cable path systems**, **cable ducts**, **grids** etc. (EN 50174-2, part 4.5.1.1).

Cable routing systems must allow for the **assembly** and **disassembly** of all cables **without any damage** and enable their **maintenance** (EN 50174-2, part 4.5.1.1).



12 m

Access to routes should always be available within a range of **no more than 12 m** (EN 50174-1, part 4.3.2.2).

Routes must provide the necessary **physical**, **climatic** and **chemical protection** of the cabling during installation as well as its operation (EN 50174-1, part 4.2.3.1).

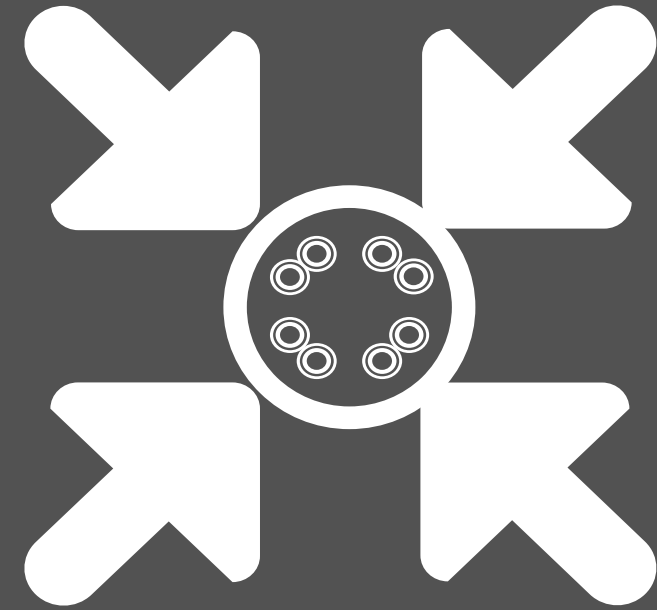


Data cable routing systems must allow for future **expansion of cabling** (EN 50174-2, part 4.5.1.1).



Plasters and concrete mixtures have an **alkaline** effect when in contact with water - i.e. an alkaline solution is formed, which can then **gradually damage** the cable sheath and change its properties. Degradation of the cable sheath results in a deterioration of its **mechanical** and **transmission** properties.

Plaster or concrete also **physically deforms** the cables with its weight (i.e. changes the arrangement of pairs inside the cables) and thus negatively affects their **electrical properties**, especially crosstalk parameters and the Return Loss parameter are affected.



SUMMARY

We **do not recommend** installing any data cables directly **under the plaster** - i.e. outside a properly protected cable route. With this type of installation, none of the above requirements from the **EN 50174 cabling standards** are met, and in addition, there is a risk of physical **damage to the cable** and an **impact** on its electrical parameters.

DO YOU NEED ADVICE?

If you **need advice** on installing Solarix products, please **contact us** at info@solarix.cz or by phone at +420 840 505 555.

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