

MANUFACTURER DECLARATION

Exclusion of SPKC* and E2VCAB* from scope of LVD and EMC European directives

2014/35/EU "LVD" directive applies to all electrical equipment designed for use with a voltage rating of between 50 and 1000 V for alternating current and between 75 and 1500 V for direct current. The definition of electric equipment in the "International Electrotechnical Vocabulary of IEC (International Electrotechnical Commission) is: "item used for such purposes as generation, conversion, transmission, distribution or utilisation of electrical energy, such as machines, transformers, switchgear and controlgear, measuring instruments, protective devices, wiring material, current-using equipment."

In general, the scope of the Directive includes both electrical equipment intended for incorporation into other equipment and equipment intended to be used directly without being incorporated. However, some types of electrical devices, designed and manufactured for being used as basic components to be incorporated into other electrical equipment, are such that their safety to a very large extent depends on how they are integrated into the final product and the overall characteristics of the final product. These basic components include electronic and certain other components (e.g. passive components such as capacitors, inductances, resistors, and also cables used in circuits with a voltage below the range in the scope of LVD). Taking into account the objectives of the "Low Voltage" Directive, such basic components, the safety of which can only, to a very large extent, be assessed taking into account how they are incorporated and for which a risk assessment cannot be undertaken, then they are not covered as such by the Directive. In particular, they must not be CE marked unless covered by other Community legislation that requires CE marking. Nevertheless, cables (especially with regard to their placement inside the equipment, for insulation between different circuits) have to be considered as a critical component when evaluating and testing the final equipment for the compliance to LVD directive. Such evaluation and testing are in charge to the final OEM or the installer.

Due to this, **Carel SPKC* pressure sensor cables and E2VCAB* E2V valve cables don't fall into the scope of LVD directive, so they are not subjected to CE marking.**

About 2014/30/EU "EMCD" directive, equipment which is inherently benign in terms of electromagnetic compatibility is excluded from the scope of the EMCD Directive.

Equipment is considered inherently benign in terms of electromagnetic compatibility if:

- its inherent physical characteristics are such that it is incapable of generating or contributing to electromagnetic emissions which exceed a level allowing radio and telecommunications equipment and other equipment to operate as intended; and,
- it will operate without unacceptable degradation in the presence of the electromagnetic disturbance normally present in its intended environment.

Both conditions need to be met in order to classify equipment as inherently benign, and they are satisfied in case of a cable assembly. Nevertheless, the cables (especially with regard to their placement inside the equipment) have to be considered as a critical component when evaluating and testing the final equipment/installation for the compliance to EMC directive. Such evaluation and testing are in charge to the final OEM or the installer.

The application of the above enables **the exclusion of Carel SPKC* pressure sensor cables and E2VCAB* E2V valve cables from scope of EMC directive, so they are not subjected to CE marking.**

Brugine, 4th March 2021

Signed for and on behalf of:
CAREL INDUSTRIES S.p.A.
Ing. Alberto Bianchi
Group Chief Research & Development Officer

