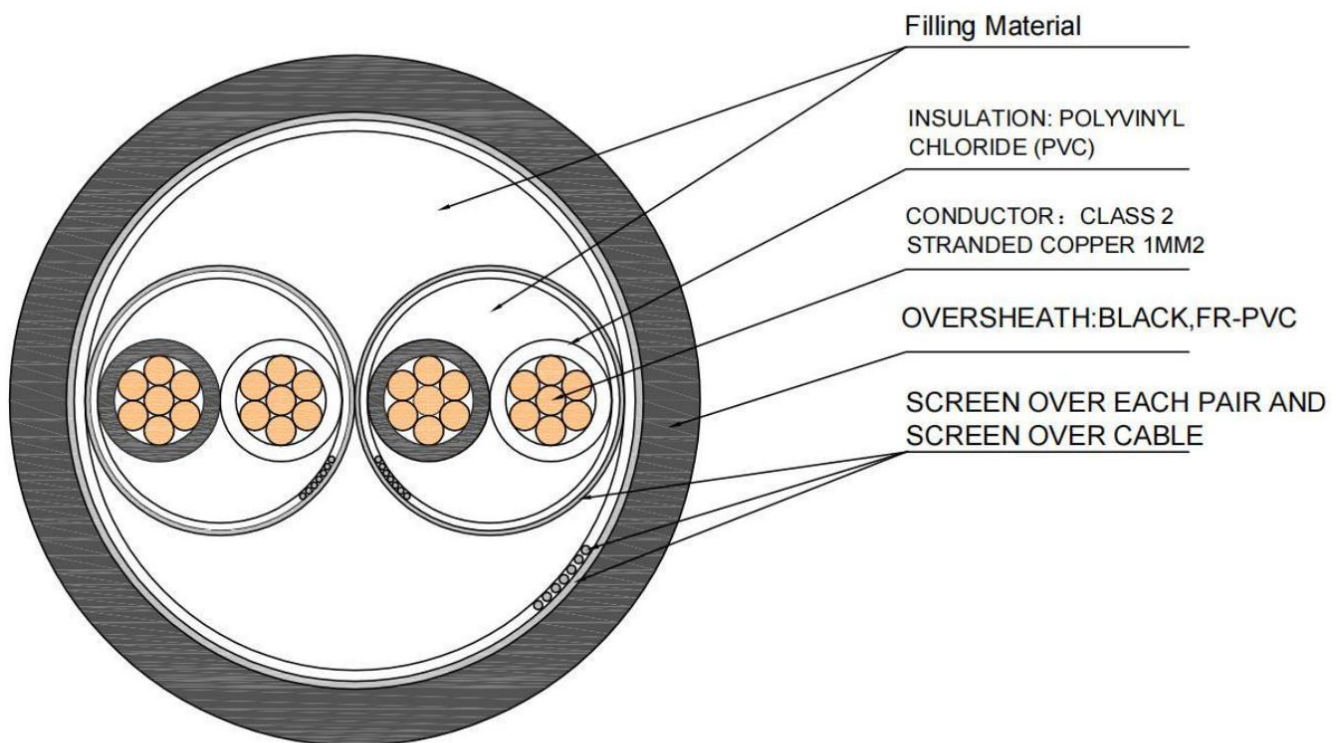


**Instrument cable CU/PVC/SH/PVC 300/500V** is a cable specially used in instrumentation and control systems. It can transmit low-level signals and control signals, while ensuring the stability and reliability of signal transmission. In the field of industrial automation, instrument cables are widely used in various instruments and control systems, such as temperature control, pressure control, flow control, etc.

**Instrument cable CU/PVC/SH/PVC 300/500V standard requirements**

The production standards of instrumentation cables refer to BS EN 50288-7, and the requirements are very strict, mainly including the following aspects:

1. Conductor material: The conductor material of the instrument cable is usually made of high-purity copper or copper alloy to ensure the stability of resistivity and conductivity.
2. Insulation materials: The insulation materials of instrument cables are usually high-quality insulation materials such as polyethylene and polyvinyl chloride to ensure insulation performance and chemical corrosion resistance.
3. Shielding material: The shielding material of the instrument cable is usually made of aluminum foil, copper mesh and other materials to ensure the shielding effect of electromagnetic interference and external interference.
4. Sheath material: The sheath material of the instrument cable is usually made of high-quality materials such as polyvinyl chloride and polyethylene to ensure the mechanical strength and chemical corrosion resistance of the cable.



300/500V, Two Pairs (CU/PVC/PVC-FR) 1.0 sq.mm Instrument Cable

**Instrument cable CU/PVC/SH/PVC 300/500V structure**

The structure of the instrument cable is similar to that of ordinary cables, consisting of conductors, insulation layers, shielding layers, sheaths, etc. Among them, the conductor is the core part of the cable, which carries the transmission of current and signal. The insulating layer is used to isolate the conductor and the shielding layer, which can prevent the interference of current and signal. The shielding layer is used to shield the electromagnetic interference inside the cable and the electromagnetic radiation interference outside. The sheath is used to protect the external environment of the cable and prevent the cable from mechanical damage and chemical corrosion.

**Instrument cable CU/PVC/SH/PVC 300/500V technical characteristics**

Instrument cables have the following technical characteristics:

1. Low-level signal transmission: Instrument cables can transmit low-level signals, such as microampere-level signals and millivolt-level signals, thereby ensuring the accuracy and stability of signal transmission.
2. Anti-interference performance: The instrument cable has good anti-interference performance, which can effectively shield electromagnetic interference and external interference, thus ensuring the reliability and stability of signal transmission.
3. Chemical corrosion resistance: instrument cables have good chemical corrosion resistance and can operate stably for a long time in harsh environments.
4. Mechanical strength: The instrument cable has good mechanical strength and can withstand certain stretching and bending, thus adapting to various complex installation environments.

use

Instrument cables are mainly used in instrumentation and control systems, such as temperature control, pressure control, flow control, etc. In these applications, instrument cables can ensure the accuracy and stability of signal transmission, thereby improving the operating efficiency and production efficiency of equipment. In addition, instrument cables can also be used as a replacement for power cables to improve the efficiency and stability of power transmission.

**The difference between instrument cables and control cables**

The difference between instrumentation cables and [control cables](#) is mainly in use and structure.

Instrument cables are mainly used in instrumentation and control systems, and their structures are relatively complex, usually including conductors, insulation layers, shielding layers, and sheaths. Among them, the insulating layer can be twisted, sub-shielded, or 3 twisted, sub-shielded, and finally there is a total shield. The control cable is used in the control system, and its structure is relatively simple, usually only a conductor, an insulating layer, a shielding layer, and a sheath. In addition, instrumentation cables are required to carry low-level signals, so the materials and thicknesses of their conductors and insulation vary.

**Instrument cable CU/PVC/SH/PVC 300/500V** is an important cable product, which has broad application prospects in the field of industrial automation. Through strict production standard requirements and excellent technical characteristics, instrument cables can ensure the accuracy and

stability of signal transmission, thereby improving the operating efficiency and production efficiency of equipment.