



## INSTRUMENTATION CABLE



### INSTRUMENTATION CABLES

**BS EN 50288-7** previously (BS5308 / PAS 5308)

Conductor - IEC 60228

Flame Retardant - IEC 60332-3 CAT A/C

Fire Resistant - IEC 60331

LSZH / LSOH - IEC 61034, IEC 60754

PVC - BS EN 50290-2-22

**Type 1 - Unarmored cables** - single and multi-pairs, PE/XLPE, overall screened or individual and overall screened, PVC outer sheath

**Type 2 - Armoured** single and multi-pairs, PE/XLPE, overall screened or individual and overall screened, PVC outer sheath

**Type 3 - Lead Sheath** Cables - Single and multi-pairs, PE/XLPE, overall screened or individual and overall screened, lead alloy; armoured, PVC outer sheath

Instrumentation Cables are single or multi-pair/triple elements designed to carry signals. They are used for connecting instruments and electrical equipment especially in plants where process control is required, where transducer-generated signals are transmitted through to panels, controllers and other devices.

The construction with individually shielded pair is typically used for analog signals and the construction with overall shield only is used for digital signals.

Typical applications are in the process industry: Oil & Gas, Chemical and Petrochemical, Water treatment, Mining and more generally in any plant where a process automation is implemented.

### Control &

#### Instrumentation Cables

Generally used within industrial manufacturing plants for control, communication, data and voice transmission signals. These cables are used typically in industrial projects and O&G industries. They are also used to connect electrical instrument circuits and provide communication services in and around process plants with detail signal transfer.

Twisting of the pairs & Alum-Mylar screen tape reduces electromagnetic interferences (EMI) from external sources or cross talk internal pairs/triple





## CONSTRUCTION

### FEATURES

Conductor: Solid Copper  
Class 1 and Class 2  
Insulation: PVC or XLPE  
Shield :Aluminum foil  
Armoured: SWA or SWB  
Outer Sheath: PVC /  
LSZH  
Voltage:300/500V

### TECHNICAL SUPPORT

### PROJECT SCHEDULE DEPENDANT PACKAGES

### DELIVERED TO SITE

### CUSTOM SOLUTIONS

### EXTENDED WARRANTY

**Conductors:** Annealed solid copper (class 1), or stranded (class 2) to BS EN 60228.

**Insulation\*:** Polyethylene to BS 6234 Type 03. Pairs are identified by number printed on cores. Alternate methods are available on request.

**Screen:** Individual and Collective Aluminium-Myler screen tape with tinned copper (0.5mm<sup>2</sup>) drain wire as a standard but other form of tape screens are also manufactured to specific requirements.

**Bedding:** Polyethylene bedding for Type 2 and PVC bedding for Type 3 cables.

**Hydrocarbon barrier:** Lead Alloy Sheath to BSEN 12548 applies only for Type 3 cable.

**Armour:** Galvanized steel wire armour (SWA) to BSEN 10257-1, and applies to Type 2 and Type 3 cables.

**Oversheath:** PVC sheath Type TM1 for standard application. Special grade PVC sheath with reduced flame propagation low acid gas with Oxygen index not less than 30 and acid gas emission less than 18% can be offered. Other sheathing materials can be manufactured to special order.

\* These cables with XLPE insulation having 90°C maximum operating temperature can be manufactured on client request.

