

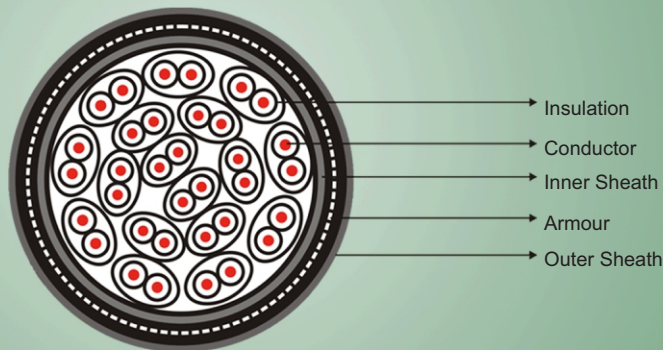
## INSTRUMENTATION / SIGNAL CABLES

**SHIELDED / UNSHIELDED / BRAIDED / SCREENED, MULTIPAIR, MULTITRIAD**

First time in India Electron Beam Cross Linked cables for special & complexed applications  
(Separate data sheets available for EBXL Cables)

### APPLICATION

For signal & data transmission used in measurement & control technology such as in control room at industrial plants, power stations, refineries, petrochemical plants. Suitable for underground (outdoor) applications.  
Twisted pair / Triad construction with short pitch & individual aluminium tape shielding, offers excellent immunity to cross talk & low frequency (upto 10 KHZ) electrostatic & electromagnetic interference.



**SPECIFICATION** : BS : 5308 (I) & (II), DIN VDE 0815 & 816 /  
IS : 5608 / IEC : 189

**SIZES** : 0.5 / 0.75 / 1.0 / 1.5 sq.mm upto 80 pairs

### COMPOSITION

Conductor : Flexible / Stranded / Solid, Plain / Tinned

Insulation : PVC / HR PVC / PE / Zero Halogen

Shielding : Individual pair / Overall pairs  
: Individual triads / Overall triads  
: Individual quads / Overall quads

Drain wire : Solid / Stranded

Inner Sheath : PVC / HR PVC / Zero Halogen

Unarmoured / Armoured with G.M.S Round Wire / Flat Strip

Outer Sheath - PVC / HR PVC / FRLSH / Zero Halogen

### TEST PARAMETERS :

Conductor Resistance at 20°C : IS 8130/(2013) - Ohm / Km

Insulation Resistance at 20°C : PE - 5 GΩ (min)  
PVC - 25 MΩ (min)

Maximum AC Voltage Withstand : 1 kV

### PVC Cables :

i) Mutual Capacitance of Pairs : 250 pF/m

ii) Conductor to Screen Capacitance : 400 pF/m



Siechem Wires & Cables Meet EU RoHS Directive

Lead Free	Hg Free	Cd Free	Cr <sup>6+</sup> Free	PBB Free	PBDE Free
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## Typical Cable Design (as per BS 5308 / 1986 Pt.2)

### Dimensions of 0.5 mm<sup>2</sup> class 5 conductor (16/0.20 mm) multipair PVC insulated cables with individual pair screens

Name of Pairs	2		5		10		15		20		30		50	
Cable type	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Thickness of sheath / bedding (Nom.) (mm)	1.1	1.1	1.2	1.2	1.3	1.3	1.5	1.5	1.5	1.5	1.7	1.7	2.2	2.2
Diameter over sheath / bedding (Nom.) (mm)	11.0	11.0	14.2	14.2	20.1	20.1	23.5	23.5	26.3	26.3	31.3	31.3	40.7	40.7
Size of armour wire (Nom.) (mm)		0.9		1.25		1.6		1.6		1.6		2.0		2.5
Diameter over armour (Nom.) (mm)		12.8		16.7		23.3		26.7		29.5		35.3		45.7
Thickness of oversheath (Nom.) (mm)		1.5		1.6		1.8		1.8		1.9		2.1		2.4
Nominal overall diameter (for information only.) (mm)	11.0	15.8	14.2	19.9	20.1	26.9	23.5	30.3	26.3	33.3	31.3	39.5	40.7	50.5

NOTE : To obtain the diameter of these cables with a collective screen add 1.0 mm to the diameter quoted.

### Dimensions of 0.75 mm<sup>2</sup> class 5 conductor (24/0.2 mm) Multipair PVC insulated cables with individual pair screens.

Name of Pairs	2		5		10		15		20		30		50	
Cable type	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Thickness of sheath / bedding (Nom.)(mm)	1.1	1.1	1.2	1.2	1.3	1.3	1.5	1.5	1.7	1.7	2.0	2.0	2.2	2.2
Diameter over sheath / bedding (Nom.) (mm)	11.8	11.8	15.3	15.3	21.7	21.7	25.4	25.4	28.8	28.8	34.5	34.5	44.0	44.0
Size of armour wire (Nom.) (mm)		0.9		1.25		1.6		1.6		2.0		2.0		2.5
Diameter over armour (Nom.) (mm)		13.6		17.8		24.9		28.6		32.8		38.5		49.0
Thickness of oversheath (Nom.) (mm)		1.5		1.6		1.8		1.9		2.0		2.2		2.5
Nominal overall diameter (for information only.) (mm)	11.8	16.6	15.3	21.0	21.7	28.5	25.4	32.4	28.8	36.8	34.5	42.9	44.0	54.0

NOTE : 1. To obtain the diameter of these cables with a collective screen add 1.0 mm to the diameter quoted.

2. Outer sheath in TMI or Type 6 /FR/FRLSH/LFH as per Customer requirement.

3. Data given above are for standard cables. The Data sheets for Instrumentation / Signal / PCM cables for various applications such as Off-shore installations, Power plants, Corrosive Chemical plants etc available on request.

CAUTION : BS 5308 specifies the insulation of these instrumentation cables is suitable for operation at voltages up to and including 300 V r.m.s. core to earth and 500 V r.m.s. core to core. The instrumentation cables are not for direct connection to a low impedance source, e.g. the public mains electricity supply.

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