

CONSTRUCTION

Conductor	Stranded annealed plain copper to Class 2 of IEC 60228.
Insulation	XLPE
Color Code	Multi Pair: Black & White with each core numbered.
Pairs	Two insulated conductors are uniformly twisted to form a pair with 10-14 twists per meter.
Individual Screen	Aluminum backed Mylar tape (25µm) is applied over each pair/triad with an overlap of 25% with metallic side down in contact with a stranded annealed tinned copper drain wire of 0.5mm ² (7x0.3mm) dia. All pair shields are electrically isolated from each other.
Cabling	Required number of individually screened pairs are assembled with non-hygroscopic filler if necessary and the assembly is wrapped with a polyester binder tape.
Collective Screen	Aluminum backed Mylar tape (25µm) is applied with an overlap of 25% with the metallic side down in contact with a Stranded Tinned Copper drain wire of 0.5mm ² (7/0.3mm) run longitudinally over the binder tape.
Inner Sheathing	Flame retardant PVC in Black color
Wire Armor	A single layer of galvanized steel wire armor to BS EN 10257 is applied over the inner sheath.
Over sheath	Flame retardant PVC Type 9 to BS 7655. The color of the sheath shall be as per dimension sheet.
Printing on the sheath	INSTRUMENTATION CABLE CU/XLPE/SWA/PVC SHIELDED NO OF PAIR X 2X...MM2 500 V MESDC YEAR BS EN 50288-7 IEC 60332-3 CAT A LENGTH METER MARKING
Technical Data:	
Temperature Range	- 5°C to 50°C (During installation) - 20°C to 90°C (During Operation)
Voltage Rating	500 Volts
Conductor Resistance	≤12.1: 12.3 (single pair/triad : multi pair/triad- for 1.5mm ²) Ω/Km at 20°C
Mutual Capacitance (at 1KHz)	≤ 100nF/Km
Capacitance Unbalance (at 1kHz)	≤ 500 pF/500m
L/R Ratio	≤40µH/Ω (1.5mm ²)
Insulation Resistance	≥ 5000 MΩ - Km at 20°C (500 V _{DC} 1 minute)
Dielectric Strength Test (Core to core & core to screen)	2000 V _{AC} / 3000 V _{DC} . For 1 minute.

INSTRUMENTATION CABLE
MULTI PAIR INDIVIDUALLY & COLLECTIVELY SCREENED, ARMORED FLAME RETARDANT
CU/XLPE/IS/OS/SWA/PVC
SPECIFICATION: BS EN 50288-7, IEC 60332-3 CAT A
MESC Doc. No.: TD-143884-02-00(WO U100705)

Dated: 14.06.2015

PO 3391

Flame Behavior Characteristics:

Flame retardant	IEC 60332-3 CAT-A
Halogen acid gas (outer sheath)	≤17% (IEC 60754-1)
Limiting Oxygen index (outer sheath)	≥ 30% (ASTM D2863)
UV /Sunlight resistance (outer sheath)	Passes after 720 hrs (UL 1581)
Oil Resistance (outer sheath)	Passes (ICEA S-73-532)
Min. Bending Radius	12 X Cable Overall Diameter

DIMENSIONAL DATA

SL. NO	MESC CODE	OUTER SHEATH COLOR	PAIR	SIZE mm ²	STRAND X DIA N x mm	INSULATION THICKNESS mm	INNER SHEATH THICKNESS mm	DIA OVER INNER SHEATH mm	ARMOUR WIRE DIA mm	DIA OVER ARMOUR mm	OUTER SHEATH THICKNESS mm	APPROX OVER ALL DIA mm	APPROX CABLE WEIGHT Kg/Km
2	0414-05P00150-W0BK8-E5	Black	5P	1.5	7 X 0.53	0.5	1.2	16.4	0.9	18.2	1.6	21.4	774
3	0414-10P00150-W0BK8-E5	Black	10P	1.5	7 X 0.53	0.5	1.4	23.2	1.25	25.7	1.8	29.3	1420
4	0414-12P00150-W0BK8-E5	Black	12P	1.5	7 X 0.53	0.5	1.5	24.2	1.25	26.7	1.8	30.3	1562
5	0414-15P00150-W0BK8-E5	Black	15P	1.5	7 X 0.53	0.5	1.5	26.9	1.6	30.1	1.8	33.7	1987
6	0414-20P00150-W0BK8-E5	Black	20P	1.5	7 X 0.53	0.5	1.7	30.4	1.6	33.6	2.0	37.6	2450