



Images not to scale. Follow table for dimensions

## APPLICATION

POLY CAB INSTRU 300 MT, Stranded copper conductor, PVC/PE insulated, Individual & overall al-myler shielded, armoured/unarmoured and PVC/LSZH sheathed cable confirming to BS EN 50288-7 are designed for transmission of analogue and digital signals in instrument and control systems. POLY CAB INSTRU 300 MT cables are used for diverse applications within industrial process for control, communication, data & voice transmission in oil, gas & petrochemical industries, cement, steel, fertilizers etc.

## CHARACTERISTICS

**Voltage Rating**  
 300 V

**Operation Temperature**  
 Max.: PVC 70°C,  
 HRPVC 85°C,  
 XLPE 90°C,  
 LDPE 60°C.

**Bending Radius**  
 12 x Overall diameter

## CONSTRUCTION

- Stranded Copper conductor as per EN 60228
- Insulated with PVC/PE as per EN 50288-7
- Individual & Collective screen Al/PET(Aluminium/Polyester tape) with drain wire of tinned Cu/ Tinned copper braiding.
- Extruded inner sheath with PVC/LSZH to EN 50290-2-22/27
- Armoured with Galvanised Steel Strip/Round as per EN 50288-7
- Sheathed with Extruded PVC/LSZH to EN 50290-2-22/27

**Core Identification**  
 White, Blue & Brown for Triad

Outer sheath colour: Blue/Black

## OUTSTANDING FEATURES

- Flame retardant
- Low smoke emission
- Long life

## STANDARD FOLLOWS

EN 50288-7  
 EN 50288-1  
 EN 60228  
 EN 50290-2-22/27

## COMPLIANCE

Conductor resistance - EN 60228  
 Insulation resistance - EN 50288-7  
 L/R Ratio - EN 50288-7  
 Mutual capacitance - EN 50288-7

## OUR ACCREDITATIONS



## APPROVAL



## NOTES

Outer sheath also available with PE, FRLS & LSZH on request.  
 As per the application/identification requirement, other colour also available on request.

**Weight & Dimension Data**

**300 VOLTS, MULTI TRIAD, STR. COPPER, PVC/PE INSULATED, ALUMINIUM MYLAR TAPED INDIVIDUAL & OVERALL SHIELDED, ARMOURED AND UNARMOURED INSTRUMENTATION CABLES AS PER EN 50288-7**

Area of conductor	No.of triad	Min. thickness of insulation	ARMOURED CABLES						UNARMOURED CABLES					
			Nominal thickness of inner sheath	Diameter of G.I. armour wire	Nominal thickness of outer Sheath	Nominal Overall diameter	Approx. weight - PE insulation	Approx. weight of PVC Insulation	Nominal thickness of outer sheath	Nominal overall Diameter	Approx. weight - PE insulation	Approx. weight of PVC Insulation		
Sqmm	mm	mm	mm	mm	mm	mm	kg/km	kg/km	mm	mm	kg/km	kg/km		
0.5	2	0.26	1.0	0.9	1.4	14.3	345	350	1.0	9.7	100	105		
0.5	4	0.26	1.0	0.9	1.4	15.8	445	455	1.0	11.2	160	170		
0.5	5	0.16	1.0	0.9	1.4	16.9	495	510	1.0	12.3	190	205		
0.5	6	0.16	1.1	0.9	1.5	18.4	570	580	1.1	13.6	230	245		
0.5	8	0.26	1.1	0.9	1.5	20.1	670	690	1.1	15.3	290	310		
0.5	10	0.26	1.2	0.9	1.6	22.5	800	830	1.2	17.5	360	390		
0.5	12	0.26	1.2	1.25	1.6	23.8	1000	1030	1.2	18.1	415	450		
0.5	14	0.26	1.3	1.25	1.6	24.9	1090	1130	1.3	19.2	480	520		
0.5	16	0.26	1.3	1.25	1.7	26.2	1190	1240	1.3	20.3	540	580		
0.5	19	0.26	1.3	1.25	1.7	27.3	1320	1370	1.3	21.4	620	680		
0.5	20	0.26	1.4	1.25	1.7	28.8	1400	1460	1.4	22.9	670	720		
0.5	24	0.26	1.4	1.25	1.8	31.4	1610	1680	1.4	25.3	790	850		
0.5	30	0.26	1.5	1.25	1.8	33.2	1830	1920	1.5	27.1	960	1050		
0.5	37	0.26	1.6	1.25	1.9	35.8	2130	2130	1.6	29.5	1170	1280		
0.75	2	0.26	1.0	0.9	1.4	15.1	385	390	1.0	10.5	110	US		
0.75	4	0.26	1.0	0.9	1.5	17.1	510	520	1.0	12.3	195	210		
0.75	5	0.26	1.1	0.9	1.5	18.4	580	600	1.1	13.6	245	260		
0.75	6	0.26	1.1	0.9	1.5	19.7	650	670	1.1	14.9	188	305		
0.75	8	0.26	1.2	0.9	1.6	22.0	800	820	1.2	17.0	370	39S		
0.75	10	0.26	1.3	1.25	1.6	25.1	1080	1120	1.3	19.4	460	490		
0.75	12	0.26	1.3	1.25	1.7	26.0	1180	1220	1.3	20.1	SJ0	570		
0.75	14	0.26	1.3	1.25	1.7	27.0	1290	1330	1.3	21.1	610	6'10		
0.75	16	0.26	1.4	1.25	1.7	28.4	1410	1460	1.4	22.5	690	740		
0.75	19	0.26	1.4	1.25	1.7	29.7	1560	1620	1.4	23.8	800	860		
0.75	20	0.26	1.4	1.25	1.8	31.3	1650	1720	1.4	2S.2	840	910		
0.75	24	0.26	1.5	1.25	1.8	34.2	1920	2000	1.5	28.1	1010	1090		
0.75	30	0.26	1.6	1.6	1.9	37.0	2420	2520	1.6	30.0	1240	1J30		
0.75	37	0.26	1.7	1.6	2.0	39.9	2800	2920	1.7	32.7	1510	1630		
1.0	2	0.26	1.0	0.9	1.4	15.8	425	430	1.0	11.2	140	150		
1.0	4	0.26	1.1	0.9	1.5	18.1	580	590	1.1	13.3	240	255		

Area of conductor	No.of triad	Min. thickness of insulation	ARMOURED CABLES						UNARMOURED CABLES					
			Nominal thickness of inner sheath	Diameter of G.I. armour wire	Nominal thickness of outer Sheath	Nominal Overall diameter	Approx. weight - PE insulation	Approx. weight of PVC Insulation	Nominal thickness of outer sheath	Nominal overall Diameter	Approx. weight - PE insulation	Approx. weight of PVC Insulation		
Sqmm		mm	mm	mm	mm	mm	kg/km	kg/km	mm	mm	kg/km	kg/km		
1.0	5	0.26	1.1	0.9	1.5	19.4	650	670	1.1	14.6	290	305		
1.0	6	0.26	1.2	0.9	1.5	21.0	750	770	1.2	16.2	345	365		
1.0	8	0.26	1.2	1.25	1.6	23.9	1020	1050	1.2	18.2	440	470		
1.0	10	0.26	1.3	1.25	1.7	26.8	1230	1260	1.3	20.9	550	590		
1.0	12	0.26	1.3	1.25	1.7	27.5	1330	1370	1.3	21.6	640	680		
1.0	14	0.26	1.4	1.25	1.7	28.8	1470	1520	1.4	22.9	740	790		
1.0	16	0.26	1.4	1.25	1.7	30.1	1600	1660	1.4	24.2	830	890		
1.0	19	0.26	1.5	1.25	1.8	31.9	1810	1880	1.5	25.8	980	1050		
1.0	20	0.26	1.5	1.25	1.8	33.4	1910	1980	1.5	27.3	1030	1100		
1.0	24	0.26	1.6	1.6	1.9	37.5	2440	2520	1.6	30.5	1230	1320		
1.0	30	0.26	1.7	1.6	2.0	39.7	2800	2910	1.7	32.5	1510	1620		
1.0	37	0.26	1.7	1.6	2.0	42.4	3210	3340	1.7	35.2	1830	1960		
1.5	2	0.35	1.1	0.9	1.5	18.3	530	540	1.1	13.5	195	205		
1.5	4	0.35	1.2	0.9	1.5	20.8	730	7i0	1.2	16.0	330	355		
1.5	5	0.35	1.2	1.25	1.6	23.2	970	1000	1.2	17.5	400	430		
1.5	6	0.35	1.3	1.25	1.6	25.1	1090	1120	1.3	19.4	480	510		
1.5	8	0.35	1.4	1.25	1.7	28.0	1330	1380	1.4	22.1	620	670		
1.5	10	0.35	1.5	1.25	1.8	31.4	1600	1650	1.5	25.3	780	830		
1.5	12	0.35	1.5	1.25	1.8	32.3	1750	1820	1.5	26.2	900	970		
1.5	14	0.35	1.5	1.25	1.8	33.7	1920	2000	1.5	27.6	1030	1110		
1.5	16	0.35	1.6	1.6	1.9	36.4	2330	2420	1.6	29.4	1170	1260		
1.5	19	0.35	1.6	1.6	1.9	38.0	1S90	1690	1.6	31.0	1360	1470		
1.5	20	0.35	1.7	1.6	2.0	40.3	2770	2880	1.7	33.1	1450	1560		
1.5	24	0.35	1.8	1.6	2.1	44.4	3210	3340	1.8	37.0	1740	1870		
1.5	30	0.35	1.9	1.6	2.1	46.8	3700	3860	1.9	39.4	2130	2300		
1.5	37	0.35	2.0	2.0	2.1	51.3	4650	4850	2.0	41.9	2590	2800		

For Cables of sizes or triad not listed above the product data is available on request  
 Dimensions & Weights are representative figures and may vary

**Electrical Parameter**

Area of Conductor	Max. DC resistance of conductor at 20°C Plain wires	Max. DC resistance of conductor at 20°C Metal coated wires	Insulation resistance (PVC)	Insulation resistance (PE/XLPE)	Mutual capacitance	Inductance to resistance ratio(L/R)
Sqmm	Ohm/km	Ohm/km	MΩ/Km	MΩ/Km	nf/Km	μH/Ω
0.5	36	36.7	10	1000	< 250	< 25
0.75	24.5	24.8	10	1000	< 250	< 25
1	18.1	18.2	10	1000	< 250	< 25
1.5	12.1	12.2	10	1000	< 250	< 40
2.5	7.41	7.56	10	1000	< 250	< 60