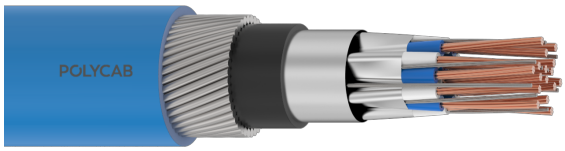
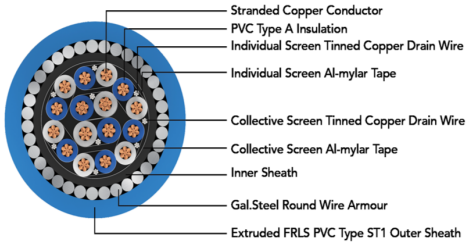
POLYCAB INSTRU 500 (ST) PiMF

Instrumentation cable PVC/PE Insulated Individual & Overall shielded 500V





Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB INSTRU 500 MP, Stranded copper conductor, PVC/PE insulated, Individual & overall al-mylar 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. POLYCAB INSTRU 500 MP 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
500 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 for Pair

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

NABL

APPROVAL

FQC CE

NOTES

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

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POLYCAB
IDEAS. CONNECTED.

Weight & Dimension Data

500 VOLTS, MULTI PAIR, 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 pair	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
0.5	2	0.44	1.0	0.9	1.4	14.8	355	365	1.0	10.2	97	105
0.5	4	0.44	1.0	0.9	1.5	16.7	450	465	1.0	11.9	150	165
0.5	5	0.44	1.1	0.9	1.5	18.0	520	530	1.1	13.2	185	200
0.5	6	0.44	1.1	0.9	1.5	19.2	580	590	1.1	14.4	215	235
0.5	8	0.44	1.2	0.9	1.6	21.4	690	710	1.2	16.4	275	300
0.5	10	0.44	1.3	1.25	1.6	24.5	940	970	1.3	18.8	345	375
0.5	12	0.44	1.3	1.25	1.7	25.3	1030	1070	1.3	19.4	390	430
0.5	16	0.44	1.4	1.25	1.7	27.7	1200	1250	1.4	21.8	510	560
0.5	18	0.44	1.4	1.25	1.7	28.9	1300	1350	1.4	23.0	560	620
0.5	19	0.44	1.4	1.25	1.7	28.9	1320	1380	1.4	23.0	580	640
0.5	20	0.44	1.4	1.25	1.8	30.4	1410	1470	1.4	24.3	610	680
0.5	24	0.44	1.5	1.25	1.8	33.3	1610	1690	1.5	27.2	730	810
0.5	30	0.44	1.6	1.6	1.9	36.0	2030	2130	1.6	29.0	890	990
0.5	37	0.44	1.7	1.6	2.0	38.8	2330	2450	1.7	31.6	1080	1200
0.75	2	0.44	1.0	0.9	1.4	15.6	390	395	1.0	11.0	110	120
0.75	4	0.44	1.1	0.9	1.5	17.8	510	530	1.1	13.0	185	200
0.75	5	0.44	1.1	0.9	1.5	19.0	570	590	1.1	14.2	220	235
0.75	6	0.44	1.2	0.9	1.5	20.5	650	680	1.2	15.7	260	285
0.75	8	0.44	1.2	1.25	1.6	23.4	900	930	1.2	17.7	330	360
0.75	10	0.44	1.3	1.25	1.7	26.2	1060	1100	1.3	20.3	410	445
0.75	12	0.44	1.3	1.25	1.7	26.9	1150	1190	1.3	21.0	470	510
0.75	16	0.44	1.4	1.25	1.8	29.7	1370	1430	1.4	23.6	610	670
0.75	18	0.44	1.5	1.25	1.8	31.2	1500	1560	1.5	25.1	690	750
0.75	19	0.44	1.5	1.25	1.8	31.2	1520	1590	1.5	25.1	710	780
0.75	20	0.44	1.5	1.25	1.8	32.6	1610	1680	1.5	26.5	750	830
0.75	24	0.44	1.6	1.6	1.9	36.6	2060	2150	1.6	29.6	900	990
0.75	30	0.44	1.7	1.6	2.0	38.8	2360	2470	1.7	31.6	1100	1210
0.75	37	0.44	1.8	1.6	2.0	41.6	2690	2830	1.8	34.4	1330	1470
1.0	2	0.44	1.0	0.9	1.4	16.2	420	425	1.0	11.6	125	135
1.0	4	0.44	1.1	0.9	1.5	18.6	560	570	1.1	13.8	210	225

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Area of conductor	No.of pair	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	0.44	1.1	0.9	1.5	19.9	630	650	1.1	15.1	250	270
1.0	6	0.44	1.2	0.9	1.6	21.7	720	750	1.2	16.7	300	325
1.0	8	0.44	1.3	1.25	1.6	24.7	1000	1030	1.3	19.0	390	420
1.0	10	0.44	1.3	1.25	1.7	27.5	1170	1210	1.3	21.6	475	510
1.0	12	0.44	1.4	1.25	1.7	28.4	1280	1330	1.4	22.5	560	610
1.0	16	0.44	1.5	1.25	1.8	31.4	1540	1610	1.5	25.3	720	790
1.0	18	0.44	1.5	1.25	1.8	32.8	1660	1740	1.5	26.7	800	870
1.0	19	0.44	1.5	1.25	1.8	32.8	1700	1770	1.5	26.7	830	910
1.0	20	0.44	1.6	1.25	1.9	34.7	1820	1900	1.6	28.4	890	970
1.0	24	0.44	1.7	1.6	2.0	38.9	2330	2430	1.7	31.7	1070	1160
1.0	30	0.44	1.7	1.6	2.0	40.9	2620	2740	1.7	33.7	1280	1400
1.0	37	0.44	1.8	1.6	2.1	44.0	3030	3180	1.8	36.6	1560	1710
1.5	2	0.44	1.1	0.9	1.5	17.7	485	490	1.1	12.9	160	170
1.5	4	0.44	1.2	0.9	1.5	20.1	650	660	1.2	15.3	265	285
1.5	5	0.44	1.2	0.9	1.6	21.7	740	760	1.2	16.7	320	345
1.5	6	0.44	1.3	1.25	1.6	24.2	980	1010	1.3	18.5	380	410
1.5	8	0.44	1.3	1.25	1.7	26.7	1150	1190	1.3	20.8	485	520
1.5	10	0.44	1.4	1.25	1.8	30.0	1380	1430	1.4	23.9	600	650
1.5	12	0.44	1.5	1.25	1.8	31.0	1520	1570	1.5	24.9	710	770
1.5	16	0.44	1.6	1.25	1.9	34.3	1830	1910	1.6	28.0	920	990
1.5	18	0.44	1.6	1.6	1.9	36.5	2180	2270	1.6	29.5	1020	1100
1.5	19	0.44	1.6	1.6	1.9	36.5	2230	2310	1.6	29.5	1070	1150
1.5	20	0.44	1.7	1.6	2.0	38.6	2380	2480	1.7	31.4	1140	1230
1.5	24	0.44	1.8	1.6	2.1	42.5	2760	2880	1.8	35.1	1360	1470
1.5	30	0.44	1.9	1.6	2.1	44.9	3160	3300	1.9	37.5	1660	1800
1.5	37	0.44	2.0	2.0	2.2	49.2	3970	4140	2.0	40.8	2020	2190
2.5	2	0.53	1.2	0.9	1.5	20.0	600	610	1.2	15.2	220	235
2.5	4	0.53	1.3	1.25	1.6	23.8	960	980	1.3	18.1	375	400
2.5	5	0.53	1.3	1.25	1.7	25.8	1090	1120	1.3	19.9	450	485
2.5	6	0.53	1.4	1.25	1.7	27.8	1250	1290	1.4	21.9	540	580
2.5	8	0.53	1.5	1.25	1.8	31.1	1510	1560	1.5	25.0	700	750
2.5	10	0.53	1.6	1.6	1.9	35.5	2000	2070	1.6	28.6	870	940
2.5	12	0.53	1.6	1.6	1.9	36.7	2170	2250	1.6	29.7	1010	1090
2.5	16	0.53	1.8	1.6	2.0	40.7	2660	2770	1.8	33.5	1320	1430

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			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
2.5	18	0.53	1.8	1.6	2.1	42.8	2890	3010	1.8	35.4	1470	1590
2.5	19	0.53	1.8	1.6	2.1	42.8	2960	3090	1.8	35.4	1540	1660
2.5	20	0.53	1.9	1.6	2.1	45.0	3130	3270	1.9	37.6	1640	1770
2.5	24	0.53	2.0	2.0	2.3	50.7	4000	4160	2.0	42.1	1960	2120
2.5	30	0.53	2.1	2.0	2.3	53.4	4540	4740	2.1	44.8	2390	2590
2.5	37	0.53	2.3	2.0	2.4	57.8	5310	5560	2.3	49.0	2930	3180

For Cables of sizes or pair 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