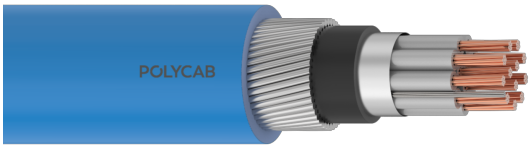
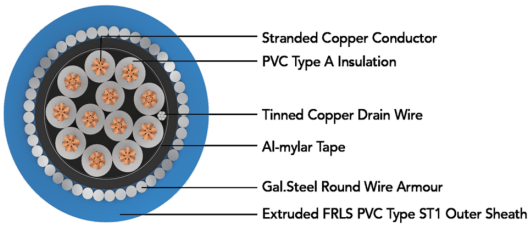
POLYCAB INSTRU 500 MC (ST)
Instrumentation cable PVC/PE Insulated Overall shielded 500V





Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB INSTRU 500 MC, insulated with PVC/PE, 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 MC 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
- 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/Grey core with number printing.

Outer sheath colour: Black/Blue

OUTSTANDING FEATURES

- Flame Retardant
- Long Life
- Low Smoke emission

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 on request.
As per the application/identification requirement, other colour also available on request.

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Weight & Dimension Data

500 VOLTS, MULTI CORE, STR.COPPER, PVC/PE INSULATED, ALUMINIUM MYLAR TAPED OVERALL SHIELDED, ARMOURED AND UNARMOURED INSTRUMENTATION CABLES AS PER EN 50288-7

Area of conductor	No. of core	Min. thickness of insulation	ARMOURED CABLES						UNARMOURED CABLES			
			Nominal thickness of inner sheath	Diameter of G.I. armoured wire	Nominal thickness of outer sheath	Nominal overall diameter	Approx.. weight of PE insulation	Approx . weight of PVC insulation	Nominal thickness of outer sheath	Nominal overall diameter	Approx. weight of 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	0.9	0.9	1.3	10.6	215	215	0.9	6.2	48	52
0.5	3	0.44	0.9	0.9	1.3	11.0	230	235	0.9	6.6	56	61
0.5	4	0.44	0.9	0.9	1.3	11.5	255	260	0.9	7.1	67	73
0.5	5	0.44	0.9	0.9	1.3	12.1	270	280	0.9	7.7	75	83
0.5	6	0.44	0.9	0.9	1.4	12.9	305	315	0.9	8.3	87	97
0.5	7	0.44	0.9	0.9	1.4	12.9	305	315	0.9	8.3	89	100
0.5	8	0.44	1.0	0.9	1.4	14.1	345	360	1.0	9.5	105	120
0.5	10	0.44	1.0	0.9	1.4	15.2	395	410	1.0	10.6	125	140
0.5	12	0.44	1.0	0.9	1.4	15.6	420	435	1.0	11.0	140	160
0.5	16	0.44	1.0	0.9	1.4	16.7	480	500	1.0	12.1	180	205
0.5	18	0.44	1.1	0.9	1.5	17.7	530	560	1.1	12.9	205	235
0.5	19	0.44	1.1	0.9	1.5	17.7	530	560	1.1	12.9	205	235
0.5	20	0.44	1.1	0.9	1.5	18.4	570	600	1.1	13.6	225	260
0.5	24	0.44	1.1	0.9	1.5	19.8	630	670	1.1	15.0	255	295
0.5	30	0.44	1.2	0.9	1.5	20.9	710	760	1.2	16.1	310	360
0.5	37	0.44	1.2	0.9	1.6	22.3	800	860	1.2	17.3	370	425
0.75	2	0.44	0.9	0.9	1.3	11.1	230	235	0.9	6.7	57	60
0.75	3	0.44	0.9	0.9	1.3	11.4	245	255	0.9	7.0	67	72
0.75	4	0.44	0.9	0.9	1.3	12.0	275	285	0.9	7.6	81	88
0.75	5	0.44	0.9	0.9	1.4	12.9	305	315	0.9	8.3	91	100
0.75	6	0.44	0.9	0.9	1.4	13.6	340	350	0.9	9.0	110	120
0.75	7	0.44	0.9	0.9	1.4	13.6	340	355	0.9	9.0	110	125
0.75	8	0.44	1.0	0.9	1.4	14.8	390	405	1.0	10.2	130	145
0.75	10	0.44	1.0	0.9	1.4	16.1	440	460	1.0	11.5	155	175
0.75	12	0.44	1.0	0.9	1.4	16.4	470	495	1.0	11.8	180	200
0.75	16	0.44	1.1	0.9	1.5	18.1	570	590	1.1	13.3	235	260
0.75	18	0.44	1.1	0.9	1.5	18.8	610	640	1.1	14.0	260	295
0.75	19	0.44	1.1	0.9	1.5	18.8	610	650	1.1	14.0	265	300
0.75	20	0.44	1.1	0.9	1.5	19.5	660	690	1.1	14.7	290	325
0.75	24	0.44	1.2	0.9	1.6	21.5	750	800	1.2	16.5	335	375
0.75	30	0.44	1.2	1.25	1.6	23.1	960	1010	1.2	17.4	400	455
0.75	37	0.44	1.3	1.25	1.6	24.7	1090	1160	1.3	19.0	485	550

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Area of conductor	No. of core	Min. thickness of insulation	ARMOURED CABLES						UNARMOURED CABLES			
			Nominal thickness of inner sheath	Diameter of G.I. armoured wire	Nominal thickness of outer sheath	Nominal overall diameter	Approx.. weight of PE insulation	Approx . weight of PVC insulation	Nominal thickness of outer sheath	Nominal overall diameter	Approx. weight of 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	2	0.44	0.9	0.9	1.3	11.4	245	250	0.9	7.0	65	69
1.0	3	0.44	0.9	0.9	1.3	11.8	265	270	0.9	7.4	78	84
1.0	4	0.44	0.9	0.9	1.3	12.5	295	JOS	0.9	8.1	94	100
1.0	5	0.44	0.9	0.9	1.4	13.4	330	340	0.9	8.8	105	115
1.0	6	0.44	1.0	0.9	1.4	14.3	380	390	1.0	9.7	130	145
1.0	7	0.44	1.0	0.9	1.4	14.3	385	39S	1.0	9.7	135	150
1.0	8	0.44	1.0	0.9	1.4	15.4	425	440	1.0	10.8	155	170
1.0	10	0.44	1.0	0.9	1.4	16.8	490	510	1.0	12.2	185	205
1.0	12	0.44	1.1	0.9	1.5	17.6	540	570	1.1	12.8	220	245
1.0	16	0.44	1.1	0.9	1.5	18.9	640	670	1.1	14.1	280	315
1.0	18	0.44	1.1	0.9	1.5	19.7	690	720	1.1	14.9	315	350
1.0	19	0.44	1.1	0.9	1.5	19.7	690	7J0	1.1	14.9	320	360
1.0	20	0.44	1.1	0.9	1.5	20.5	740	780	1.1	15.7	350	390
1.0	24	0.44	1.2	0.9	1.6	22.6	850	900	1.2	17.6	405	455
1.0	30	0.44	1.2	1.25	1.6	24.3	1080	1140	1.2	18.6	485	550
1.0	37	0.44	1.3	1.25	1.6	26.0	1230	1310	1.3	20.3	590	670
1.5	2	0.44	0.9	0.9	1.3	12.0	275	280	0.9	7.6	79	84
1.5	3	0.44	0.9	0.9	1.4	12.7	305	315	0.9	8.1	97	105
1.5	4	0.44	0.9	0.9	1.4	13.4	345	355	0.9	8.8	120	130
1.5	5	0.44	1.0	0.9	1.4	14.4	390	400	1.0	9.8	140	155
1.5	6	0.44	1.0	0.9	1.4	15.2	435	450	1.0	10.6	170	180
1.5	7	0.44	1.0	0.9	1.4	15.2	445	460	1.0	10.6	175	195
1.5	8	0.44	1.0	0.9	1.4	16.5	495	510	1.0	11.9	200	220
1.5	10	0.44	1.1	0.9	1.5	18.4	590	610	1.1	13.6	250	275
1.5	12	0.44	1.1	0.9	1.5	18.8	640	670	1.1	14.0	285	315
1.5	16	0.44	1.2	0.9	1.5	20.5	770	810	1.2	15.7	380	415
1.5	18	0.44	1.2	0.9	1.6	21.6	840	880	1.2	16.6	420	465
1.5	19	0.44	1.2	0.9	1.6	21.6	850	890	1.2	16.6	430	475
1.5	20	0.44	1.2	1.25	1.6	23.2	1040	1080	1.2	17.5	470	520
1.5	24	0.44	1.3	1.25	1.6	25.3	1170	1220	1.3	19.6	540	600
1.5	30	0.44	1.3	1.25	1.7	26.6	1320	1390	1.3	20.7	660	730
1.5	37	0.44	1.4	1.25	1.7	28.5	1520	1610	1.4	22.6	800	890
2.5	2	0.53	1.0	0.9	1.4	13.6	345	350	1.0	9.0	115	120
2.5	3	0.53	1.0	0.9	1.4	14.2	385	395	1.0	9.6	140	150
2.5	4	0.53	1.0	0.9	1.4	15.1	435	450	1.0	10.5	175	190

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Area of conductor	No. of core	Min. thickness of insulation	ARMOURED CABLES						UNARMOURED CABLES			
			Nominal thickness of inner sheath	Diameter of G.I. armoured wire	Nominal thickness of outer sheath	Nominal overall diameter	Approx.. weight of PE insulation	Approx . weight of PVC insulation	Nominal thickness of outer sheath	Nominal overall diameter	Approx. weight of 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	5	0.53	1.0	0.9	1.4	16.0	485	500	1.0	11.4	200	220
2.5	6	0.53	1.1	0.9	1.5	17.4	570	590	1.1	12.6	245	265
2.5	7	0.53	1.1	0.9	1.5	17.4	580	610	1.1	12.6	260	285
2.5	8	0.53	1.1	0.9	1.5	19.0	650	680	1.1	14.2	295	325
2.5	10	0.53	1.2	0.9	1.6	21.2	780	820	1.2	16.2	370	405
2.5	12	0.53	1.2	0.9	1.6	21.8	850	890	1.2	16.8	430	470
2.5	16	0.53	1.3	1.25	1.6	24.5	1160	1220	1.3	18.8	560	620
2.5	18	0.53	1.3	1.25	1.7	25.7	1270	1330	1.3	19.8	630	690
2.5	19	0.53	1.3	1.25	1.7	25.7	1290	1350	1.3	19.8	650	710
2.5	20	0.53	1.3	1.25	1.7	26.9	1380	1450	1.3	21.0	700	770
2.5	24	0.53	1.4	1.25	1.7	29.3	1570	1650	1.4	23.4	820	900
2.5	30	0.53	1.5	1.25	1.8	31.1	1810	1910	1.5	25.0	1010	1110
2.5	37	0.53	1.5	1.25	1.8	33.1	2080	2200	1.5	27.0	1210	1330

For Cables of sizes or cores 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