



Images not to scale. Follow table for dimensions

## APPLICATION

POLY CAB INSTRU 300 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. POLY CAB INSTRU 300 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**  
 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
- 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

- Low emission smoke
- Flame retardant
- 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 on request.
- As per the application/identification requirement, other colour also available on request.

**POLY CAB INSTRU 300 MC (ST)**  
**Instrumentation cable PVC/PE Insulated Overall shielded 300V**

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**Weight & Dimension Data**

**300 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 cores	Min.thickness of insulation	ARMOURED CABLES						UNARMoured CABLES					
			Nominal thickness of inner sheath	Diameter of G.Larmour wire	Nominal thickness of outer sheath	Nominal Overall diameter	Approx. weight-PE insulation	Approx. weight-PVC insulation	Nominal thickness of outer sheath	Nominal overall diameter	Approx. weight-PE insulation	Approx. weight-PVC insulation		
Sqmm	mm	mm	mm	mm	mm	mm	kg/Km	kg/Km	mm	mm	kg/Km	kg/Km		
0.5	2	0.26	0.8	0.9	1.3	9.6	180	180	0.8	5.2	38	40		
0.5	3	0.26	0.8	0.9	1.3	9.9	195	195	0.8	5.5	45	47		
0.5	4	0.26	0.8	0.9	1.3	10.3	210	215	0.8	5.9	53	57		
0.5	5	0.26	0.9	0.9	1.3	11.0	235	240	0.9	6.6	63	67		
0.5	6	0.26	0.9	0.9	1.3	11.5	260	265	0.9	7.1	73	78		
0.5	7	0.26	0.9	0.9	1.3	11.5	260	270	0.9	7.1	76	82		
0.5	8	0.26	0.9	0.9	1.3	12.3	285	295	0.9	7.9	85	92		
0.5	10	0.26	0.9	0.9	1.4	13.4	330	340	0.9	8.8	100	110		
0.5	12	0.26	0.9	0.9	1.4	13.7	345	355	0.9	9.1	115	125		
0.5	16	0.26	1.0	0.9	1.4	14.8	410	425	1.0	10.2	150	165		
0.5	18	0.26	1.0	0.9	1.4	15.3	435	450	1.0	10.7	165	180		
0.5	19	0.26	1.0	0.9	1.4	15.3	440	455	1.0	10.7	170	185		
0.5	20	0.26	1.0	0.9	1.4	15.9	465	485	1.0	11.3	185	200		
0.5	24	0.26	1.0	0.9	1.4	17.0	510	540	1.0	12.4	205	230		
0.5	30	0.26	1.1	0.9	1.5	18.1	590	620	1.1	13.3	255	280		
0.5	37	0.26	1.1	0.9	1.5	19.1	660	690	1.1	14.3	300	335		
0.75	2	0.26	0.8	0.9	1.3	10.1	195	200	0.8	5.7	46	48		
0.75	3	0.26	0.8	0.9	1.3	10.4	210	215	0.8	6	55	58		
0.75	4	0.26	0.9	0.9	1.3	11.1	240	245	0.9	6.7	69	73		
0.75	5	0.26	0.9	0.9	1.3	11.6	265	270	0.9	7.2	79	84		
0.75	6	0.26	0.9	0.9	1.3	12.2	290	295	0.9	7.8	92	98		
0.75	7	0.26	0.9	0.9	1.3	12.2	290	300	0.9	7.8	96	105		
0.75	8	0.26	0.9	0.9	1.4	13.2	330	340	0.9	8.6	110	115		
0.75	10	0.26	1.0	0.9	1.4	14.5	390	400	1.0	9.9	135	145		
0.75	12	0.26	1.0	0.9	1.4	14.8	410	420	1.0	10.2	155	165		
0.75	16	0.26	1.0	0.9	1.4	15.8	475	490	1.0	11.2	195	215		
0.75	18	0.26	1.0	0.9	1.4	16.4	510	530	1.0	11.8	220	235		
0.75	19	0.26	1.0	0.9	1.4	16.4	510	530	1.0	11.8	220	245		
0.75	20	0.26	1.0	0.9	1.4	17.0	550	570	1.0	12.4	240	265		
0.75	24	0.26	1.1	0.9	1.5	18.7	630	650	1.1	13.9	280	305		
0.75	30	0.26	1.1	0.9	1.5	19.5	700	730	1.1	14.7	340	370		
0.75	37	0.26	1.1	0.9	1.5	20.6	800	840	1.1	15.8	405	445		

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Area of conductor	No.of cores	Min.thickness of insulation	ARMOURED CABLES						UNARMOURED CABLES					
			Nominal thickness of inner sheath	Diameter of G.Larmour wire	Nominal thickness of outer sheath	Nominal Overall diameter	Approx. weight-PE insulation	Approx. weight -PVC insulation	Nominal thickness of outer sheath	Nominal overall diameter	Approx. weight-PE insulation	Approx. weight -PVC insulation		
Sqmm	mm	mm	mm	mm	mm	mm	kg/Km	kg/Km	mm	mm	kg/Km	kg/Km		
1	2	0.26	0.8	0.9	1.3	10.4	210	215	0.8	6	53	56		
1	3	0.26	0.9	0.9	1.3	10.9	240	245	0.9	6.5	68	71		
1	4	0.26	0.9	0.9	1.3	11.5	270	275	0.9	7.1	82	87		
1	5	0.26	0.9	0.9	1.3	12.1	290	295	0.9	7.7	94	100		
1	6	0.26	0.9	0.9	1.3	12.7	320	330	0.9	8.3	110	120		
1	7	0.26	0.9	0.9	1.3	12.7	325	335	0.9	8.3	115	125		
1	8	0.26	0.9	0.9	1.4	13.8	370	380	0.9	9.2	130	140		
1	10	0.26	1	0.9	1.4	15.2	435	445	1	10.6	165	175		
1	12	0.26	1	0.9	1.4	15.5	465	480	1	10.9	190	205		
1	16	0.26	1	0.9	1.4	16.7	540	560	1	12.1	240	260		
1	18	0.26	1	0.9	1.4	17.3	580	610	1	12.7	270	290		
1	19	0.26	1	0.9	1.4	17.3	590	610	1	12.7	275	300		
1	20	0.26	1.1	0.9	1.5	18.4	650	670	1.1	13.6	305	330		
1	24	0.26	1.1	0.9	1.5	19.8	720	750	1.1	15	350	380		
1	30	0.26	1.1	0.9	1.5	20.6	810	850	1.1	15.8	420	455		
1	37	0.26	1.2	0.9	1.5	22.1	940	980	1.2	17.3	510	560		
1.5	2	0.35	0.9	0.9	1.3	11.6	260	265	0.9	7.2	74	78		
1.5	3	0.35	0.9	0.9	1.3	12	285	290	0.9	7.6	92	97		
1.5	4	0.35	0.9	0.9	1.4	12.9	330	335	0.9	8.3	115	120		
1.5	5	0.35	0.9	0.9	1.4	13.6	360	370	0.9	9	130	140		
1.5	6	0.35	1	0.9	1.4	14.6	415	425	1	10	160	170		
1.5	7	0.35	1	0.9	1.4	14.6	420	435	1	10	170	180		
1.5	8	0.35	1	0.9	1.4	15.8	470	485	1	11.2	190	205		
1.5	10	0.35	1.1	0.9	1.5	17.6	560	580	1.1	12.8	235	255		
1.5	12	0.35	1.1	0.9	1.5	18	600	630	1.1	13.2	275	295		
1.5	16	0.35	1.1	0.9	1.5	19.4	710	740	1.1	14.6	350	380		
1.5	18	0.35	1.1	0.9	1.5	20.2	780	810	1.1	15.4	395	425		
1.5	19	0.35	1.1	0.9	1.5	20.2	790	820	1.1	114	400	438		
1.5	20	0.35	1.2	0.9	1.5	21.2	850	890	1.2	16.4	445	480		
1.5	24	0.35	1.2	1.25	1.6	23.9	1090	1140	1.2	18.2	510	550		
1.5	30	0.35	1.3	1.25	1.6	25.1	1250	1300	1.3	19.4	630	680		
1.5	37	0.35	1.3	1.25	1.7	26.9	1430	1500	1.3	21	750	820		

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**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