

BS5308 PART1 TYPE1 INSTRUMENTATION CABLE PVC CAT



APPLICATION

Manufactured to PAS5308, Instrumentation cables are intrinsically safe and designed for use in communication and instrumentation applications in and around process industries for transmission of signals in control systems. The signals can be analogue or digital from a variety of sensors and transducers.

CABLE STANDARDS

BS 5308
PAS5308
BS EN 50265
BS EN/IEC 60332-3-24
Flame propagation to BS4066 Pt1

CONSTRUCTION PART 1

Conductor: Plain Annealed Copper Conductors

Insulation: Polyethylene (PE)

Arranged: Laid up to form pairs

Screen: Collective aluminium / mylar tape screen complete with 0.5mm drain wire

Sheath: Polyvinyl Chloride (PVC)

Sheath Colour: ■ Blue or ■ Black

CHARACTERISTICS

Voltage Rating: 300/500 Volts

Temperature Limits: -20°C to +65°C

Minimum Bending Radius: As per cable manufacturer datasheet

CORE IDENTIFICATION

Refer to Part 1 colour chart on page 3

CONSTRUCTION PART 2

Conductor: Plain Annealed Copper Conductors

Insulation: Polyvinyl Chloride (PVC)

Arranged: Laid up to form pairs

Bedding: Polyvinyl Chloride (PVC)

Screen: Collective aluminium / mylar tape screen complete with 0.5mm drain wire

Sheath: Polyvinyl Chloride (PVC)

Sheath Colour: ■ Blue or ■ Black

PAS 5308 PART1 TYPE1 PVC CAT CABLE - DIMENSIONS

CCC CODE Part 1	CONDUCTOR SIZE (MM ²)	STRANDING (MM)	NO OF PAIRS	WEIGHT (KG/KM)	OUTSIDE DIAMETER (MM)	GLAND SIZE
7100	0.5	16/0.20	1	60	6	20/16
7101	0.5	16/0.20	2	75	6.9	20/16
7102	0.5	16/0.20	5	190	12.1	20
7103	0.5	16/0.20	10	305	16.2	25
7104	0.5	16/0.20	20	518	21.3	32
7105	0.5	16/0.20	30	759	25.9	32
7106	0.5	16/0.20	50	1251	32.9	50S
7107	0.5	16/0.20	1 Triple	69	6.1	20/16
7136	0.75	24/0.20	1	69	6.3	20/16
7137	0.75	24/0.20	2	99	7.3	20/16
7138	0.75	24/0.20	5	242	13.3	20
7139	0.75	24/0.20	10	380	17.7	25
7140	0.75	24/0.20	20	684	23.5	32
7141	0.75	24/0.20	30	989	28.5	40
7142	0.75	24/0.20	50	1670	36.4	50S
7143	0.75	24/0.20	1 Triple	83	6.8	20/16
7173	1.5	7/0.53	1	87	7.3	20/16
7174	1.5	7/0.53	2	145	8.7	20S
7175	1.5	7/0.53	5	345	15.4	25
7176	1.5	7/0.53	10	575	20.6	32
7177	1.5	7/0.53	20	1075	27.5	40
7178	1.5	7/0.53	1 Triple	115	8.4	20S

PAS 5308 TYPE 1 PVC CAT CABLE – CONDUCTOR RESISTANCE

NOMINAL CROSS SECTIONAL AREA (MM ²)	CONDUCTOR CLASS	MAXIMUM RESISTANCE CONDUCTOR AT 20°C Ω/KM
8	1	18.1
12	1	18.1
16	1	18.1
20	1	18.1
8	1.5	12.1
12	1.5	12.1
16	1.5	12.1
20	1.5	12.1

THE ABOVE TABLE IS IN ACCORDANCE WITH 18TH EDITION OF IET WIRING REGULATIONS

PAS 5308 TYPE 1 PVC CAT CABLE – CURRENT CAPACITY

NOMINAL CROSS SECTIONAL AREA (MM ²)	MUTUAL CAPACITANCE pF/m			MINIMUM INSULATION RESISTANCE AT 20°C MOHMS/KM	MAXIMUM L/R RATIO MH/OHMS
	CABLES WITH COLLECTIVE SCREEN ONLY	1 PAIR, 2 PAIRS, 1 TRIPLE COLLECTIVELY SCREENED	CABLES WITH INDIVIDUALLY SCREENED PAIRS		
0.5	75	115	115	>5	25
0.75	75	115	115	>5	25
1	75	115	115	>5	25
1.5	85	120	120	>5	40
2.5	85	120	120	>5	65

THE ABOVE TABLE IS IN ACCORDANCE WITH 18TH EDITION OF IET WIRING REGULATIONS

PAS 5308 INSTRUMENT CABLE - PAIR COLOUR CHARTS

PART 1 PAIR COLOURS					
PAIR	A	B	PAIR	A	B
1	BLACK	BLUE	26	WHITE	YELLOW
2	BLACK	GREEN	27	RED	YELLOW
3	BLUE	GREEN	28	ORANGE	YELLOW
4	BLACK	BROWN	29	BLACK	GREY
5	BLUE	BROWN	30	BLUE	GREY
6	GREEN	BROWN	31	GREEN	GREY
7	BLACK	WHITE	32	BROWN	GREY
8	BLUE	WHITE	33	WHITE	GREY
9	GREEN	WHITE	34	RED	GREY
10	BROWN	WHITE	35	ORANGE	GREY
11	BLACK	RED	36	YELLOW	GREY
12	BLUE	RED	37	BLACK	VIOLET
13	GREEN	RED	38	BLUE	VIOLET
14	BROWN	RED	39	GREEN	VIOLET
15	WHITE	RED	40	BROWN	VIOLET
16	BLACK	ORANGE	41	WHITE	VIOLET
17	BLUE	ORANGE	42	RED	VIOLET
18	GREEN	ORANGE	43	ORANGE	VIOLET
19	BROWN	ORANGE	44	YELLOW	VIOLET
20	WHITE	ORANGE	45	GREY	VIOLET
21	RED	ORANGE	46	BLACK	TURQUOISE
22	BLACK	YELLOW	47	BLUE	TURQUOISE
23	BLUE	YELLOW	48	GREEN	TURQUOISE
24	GREEN	YELLOW	49	BROWN	TURQUOISE
25	BROWN	YELLOW	50	WHITE	TURQUOISE

- FOR INDIVIDUAL SCREENED PAIRS, IDENTIFICATION WILL BE BLACK/BLUE NUMBERED PAIRS.
- TWO PAIR COLLECTIVELY SCREENED CABLES ARE IN QUAD FORMATION COLOUR CODED IN ROTATION, BLACK, BLUE, GREEN, BROWN.
- SINGLE TRIPLE WILL BE BLUE , BLACK, GREEN

THE INFORMATION CONTAINED WITHIN THIS DATASHEET IS FOR GUIDANCE ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE OR LIABILITY. WE BELIEVE THE INFORMATION IS CORRECT AT THE TIME OF PUBLICATION. PLEASE NOTE WHEN SELECTING CABLE ACCESSORIES THAT ACTUAL CABLE DIMENSIONS MAY VARY DUE TO MANUFACTURING TOLERANCES.