

BS5308 PART1 TYPE 1 INSTRUMENTATION CABLE PVC ICAT



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

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

TAPE: Individual and 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

PAS 5308 PART1 TYPE 1 PVC ICAT CABLE - DIMENSIONS

CCC CODE Part 1	CONDUCTOR SIZE (MM ²)	STRANDING (MM)	NO OF PAIRS	WEIGHT (KG/KM)	OUTSIDE DIAMETER (MM)	GLAND SIZE
7112	0.5	16/0.20	2	161	11	20S
7113	0.5	16/0.20	5	253	14.2	25
7114	0.5	16/0.20	10	408	20.1	32
7115	0.5	16/0.20	20	753	26.3	40
7116	0.5	16/0.20	30	1153	31.3	40
7117	0.5	16/0.20	50	1900	40.7	50
7149	0.75	24/0.20	2	184	11.8	20
7150	0.75	24/0.20	5	299	15.3	25
7151	0.75	24/0.20	10	489	21.7	32
7152	0.75	24/0.20	20	920	28.8	40
7153	0.75	24/0.20	30	1445	34.5	50S
7154	0.75	24/0.20	50	2460	44	63S
7185	1.5	7/0.53	2	242	13.7	25
7186	1.5	7/0.53	5	408	17.8	25
7187	1.5	7/0.53	10	714	25.5	32
7188	1.5	7/0.53	20	1337	33.4	50S

PAS 5308 TYPE 1 PVC ICAT CABLE – CONDUCTOR RESISTANCE

NOMINAL CROSS SECTIONAL AREA (MM ²)	CONDUCTOR CLASS	MAXIMUM RESISTANCE CONDUCTOR AT 20°C Ω/KM
0.5	5	39
0.75	5	26
1	1	18.1
1.5	2	12.1

PAS 5308 TYPE 1 PVC – ELECTRICAL PROPERTIES

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

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
- FOR INDIVIDUAL SCREENED PAIRS, IDENTIFICATION WILL BE WHITE/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, WHITE, ORANGE.

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