



## BS5308 Cable Part 1 Type 1 IAM CAM

<b>Applications:</b>	Indoor installations generally used within industrial process plants and for data & voice transmission services. Also used for the interconnection of electrical equipment and instruments, particularly in and around process plants, where transducer generated signals are transmitted through marshalled circuits to panels, controllers and associated devices <b>Part 1</b> cables are widely used throughout the petroleum industry.
<b>Conductors:</b>	<b>Type 1</b> unarmoured cables are generally for indoor applications Plain annealed copper conductor to BS6360/IEC60228 0.5sqmm & 0.75sqmm class 5 Flexible copper 1.0sqmm class 1 solid copper, 1.0sqmm, 1.5sqmm & 2.5sqmm class 2 stranded copper
<b>Insulation:</b>	PE (Polyethylene) insulation to IEC60227 for PVC sheathed cables
<b>Core identification:</b>	See colour code link in technical information
<b>Screen:</b>	CAM (Collective aluminium mylar)
<b>Sheath/Jacket:</b>	PVC (Polyvinyl-Chloride)
<b>Colour:</b>	Black or Blue
<b>Voltage:</b>	300/500v
<b>Pairing:</b>	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm. Two pair cables without individual pair screens shall have four cores laid in quad formation around a central dummy. Pairs are assembled together using the reciprocating lay technique
<b>Temperature Range:</b>	Operating -40°C to +65°C, Installation 0°C to +50°C
<b>Bending Radius:</b>	5 x overall diameter
<b>Binder tape:</b>	A non-hydroscopic binder tape is applied over the cable assembly
<b>Standards:</b>	BS5308 Part 1 ,Insulated cables, instrumentation, PE BS6234: Specification for polyethylene insulation and sheath of electric cables Flame retardant to IEC60332



### Electrical Characteristics

Conductor size	0.5mm <sup>2</sup> (16/.2)	0.75mm <sup>2</sup> (24/.2)	1.00mm <sup>2</sup> (1/1.13)	1.5mm <sup>2</sup> (7/0.53)
<b>Mutual Capacitance:</b>				
a. Cables with only collective screens (except one pair and two pair)- pf/fm	75	75	75	85
b. One pair and two pair cables collectively screened and all cables with individually screened pairs. - pf/fm	115	115	115	120
Conductor resistance: Max resistance: Max dc resistance at 20°C – ohms/Km	39.7	26.5	18.5	12.3
L/R ratio (maximum value) – microH/ohm	25	25	25	40



**BS5308 Part 1 Type 1 Collectively screened unarmoured**

Conductor size (mm)	Nominal dimensions (mm), Weights and Gland sizes									
	No of Pairs	1	2	5	10	15	20	30	50	
<b>16/0.20</b> <b>(0.5mm<sup>2</sup>)</b>	BATT part no Black	85003	85004	85023	85034	-	85035	85516	-	
	BATT part no Blue	85296	85013	85117	85471	-	85517	85518	-	
	Overall Diameter	7.0	7.9	13.1	17.2	19.8	22.3	26.9	33.9	
	Weight Kg/KM	42	64	150	250	340	440	640	1020	
	Gland A2/Size	20ss	20ss	20	25	25	32	40	50s	
	Gland part no	88347	88347	88360	88362	88362	88363	88364	88365	
	<b>24/0.20</b> <b>(0.75mm<sup>2</sup>)</b>	BATT part no Black	85071	85581	85092	85585	-	85228	85380	-
Generally to BS5308	BATT part no Blue	85240	85580	85582	85584	-	84246	-	-	
	Overall Diameter	7.3	8.3	14.3	18.7	21.4	24.5	29.5	37.4	
	Weight Kg/KM	70	110	260	410	540	680	1020	1650	
	Gland A2/Size	20ss	20s	25	25	32	32	40	50s	
	Gland part no	88347	88348	88362	88362	88363	88363	88364	88365	
	<b>1/1.13</b> <b>(1.00mm<sup>2</sup>)</b>	BATT part no Black	85103	-	-	-	-	-	-	-
	BATT part no Blue	85474	-	-	-	-	-	-	-	
<b>7/0.53</b> <b>(1.5mm<sup>2</sup>)</b>	Overall Diameter	7.4	8.4	14.2	18.4	21.3	24.4	29.0	37.3	
	Weight Kg/KM	53	86	210	350	490	670	950	1580	
	Gland A2/Size	20ss	20s	25	25	32	32	40	50s	
	Gland part no	88347	88348	88362	88362	88363	88363	88364	88365	
	BATT part no Black	85626	85523	85384	-	-	-	-	-	
	BATT part no Blue	85772	85528	85571	85190	-	85801	-	-	
	Overall Diameter	8.3	9.7	16.4	21.6	25.2	28.5	34.3	43.6	
	Weight Kg/KM	83	130	300	540	750	960	1400	2400	
	Gland A2/Size	20s	20s	25	32	32	40	50s	50	
	Gland part no	88348	88348	88362	88363	88363	88364	88365	88285	

**BS5308 Part 1 Type 1 Individual and Collective screen unarmoured**

Conductor size (mm)	Nominal dimensions (mm), Weights and Gland sizes									
	No of Pairs	1	2	5	10	15	20	30	50	
<b>16/0.20</b> <b>(0.5mm<sup>2</sup>)</b>	BATT part no Black	-	85297	85041	85389	-	85390	85059	-	
	BATT part no Blue	-	85295	85042	85048	85051	85056	85057	-	
	Overall Diameter	-	11.8	13.1	17.2	19.8	22.3	26.9	33.9	
	Weight Kg/KM	-	130	150	250	340	440	640	1020	
	Gland A2/Size	-	20	20	25	32	32	40	50s	
	Gland part no	-	88360	88360	88362	88363	88363	88364	88365	
	<b>24/0.20</b> <b>(0.75mm<sup>2</sup>)</b>	BATT part no Black	-	85242	85310	85394	-	85536	85537	-
Generally to BS5308	BATT part no Blue	-	85241	85097	85264	-	85102	85396	-	
	Overall Diameter	-	12.8	16.3	22.7	26.4	29.8	35.5	45.0	
	Weight Kg/KM	-	190	330	510	700	900	1240	2000	
	Gland A2/Size	-	20	25	32	40	40	50s	63s	
	Gland part no	-	88360	88362	88363	88364	88364	88365	88366	
	<b>1/1.13</b> <b>(1.00mm<sup>2</sup>)</b>	BATT part no Black	-	-	-	-	-	-	-	-
	BATT part no Blue	-	85170	-	-	-	-	-	-	
	Overall Diameter	-	12.8	16.2	22.6	26.2	29.8	35.4	44.9	
	Weight Kg/KM	-	190	350	510	700	900	1240	2000	
	Gland A2/Size	-	20	25	32	40	40	50s	63s	
	Gland part no	-	88360	88362	88363	88364	88364	88365	88366	
	<b>7/0.53</b> <b>(1.5mm<sup>2</sup>)</b>	BATT part no Black	-	85412	85387	85285	85779	85386	-	-
	BATT part no Blue	-	85405	85413	-	-	85456	-	-	
	Overall Diameter	-	14.7	18.8	26.5	30.8	34.4	41.0	52.2	
	Weight Kg/KM	-	190	370	630	920	1100	1700	2900	
	Gland A2/Size	-	25	25	40	40	50s	50	63	
	Gland part no	-	88362	88362	88364	88364	88365	88285	88367	