



# BS5308 Cable Part 2 Type 2 PVC-OS-SWA-PVC/ RE-Y(St)YSWAY

## Application

The armoured versions (Part 2 Type 2) are generally used when the risk of mechanical damage is increased. The galvanised steel wire armour provides excellent protection. Generally used within industrial process manufacturing plants for communication, data and voice transmission signals and services, Also used for the interconnection of electrical equipment and instruments, typically in chemical or petrolchemical industry. The armored versions are generally use for outdoor installation for direct burial or installed in the duct and suitable for wet and damp areas.

## Construction

<b>Conductor</b>	Annealed or tinned copper, sizes: 0.5mm <sup>2</sup> and 0.75mm <sup>2</sup> multistranded(Class 5), 1.5mm <sup>2</sup> multistranded(Class 2) to BS6360
<b>Insulation</b>	PVC (polyvinyl chloride), type TI1 to BS 6746
<b>Pairing</b>	Two insulated conductors uniformly twisted together with a lay not exceeding 100mm
<b>Colour code</b>	Multicore cables: up to 40 cores yellow with black numbers, 41 - 80 cores black with yellow numbers. Multipair cables:See technical information
<b>Binder tape</b>	PETP transparent tape
<b>Collective screen</b>	Aluminium/polyester tape is applied over the laid up pairs metallic side down in contact with tinned copper drain wire, 0.5mm <sup>2</sup>
<b>Inner Sheath</b>	PVC (polyvinyl chloride), type TM 1 to BS 6746
<b>Amour</b>	Galvanized steel wire armour
<b>Outer sheath</b>	PVC Sheath, type TM 1 or type 6 to BS 6746
<b>Sheath colour</b>	Black or blue

## Mechanical and Electrical Properties

**Operating temperature:** -40°C up to + 70°C( fixed installation)  
0°C to +50°C(during operation )

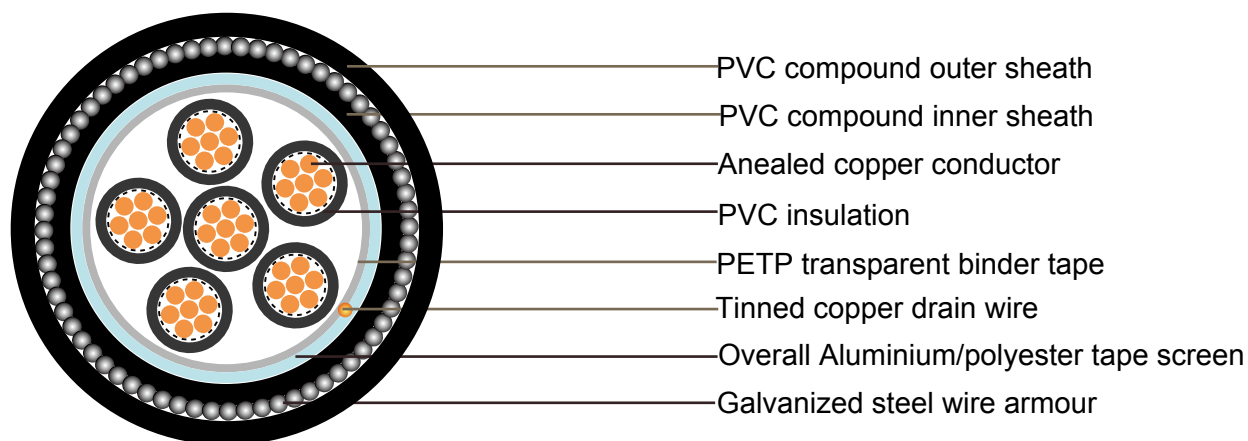
**Minimum bending radius:** 6 x overall diameter



<b>Conductor Area Size</b>		mm <sup>2</sup>	0.5	0.75	1.5
<b>Conductor Stranding</b>		No. x mm	16 x 0.2	24 x 0.2	7 x 0.53
<b>Conductor resistance max</b>		ohm/km	39.7	26.5	12.3
<b>Insulation resistance min</b>		Mohm/km	25	25	25
<b>Max. Mutual Capacitance: pair or adjacent cores</b>		pF/m	250	250	250
<b>Capacitance between any core or screen max.</b>		pF/m	400	400	400
<b>Max. L/R Ratio for adjacent cores(Inductance/Resistance)</b>		μH/ohm	25	25	40
<b>Test voltage</b>	<b>Core to core</b>	V	1000	1000	1000
	<b>Core to screen</b>	V	1000	1000	1000
<b>Rated voltage max</b>		V	300/500	300/500	300/500

## Parameter

### Multicore



No. of Cores	No. and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of bedding	Nominal Dia. over Bedding	Nominal Thickness of Armour	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm <sup>2</sup>	mm	mm	mm	mm	mm	mm	kg/km
2	16/0.2	0.5	0.6	0.8	6.7	0.9	1.3	11.1	255
3	16/0.2	0.5	0.6	0.8	6.6	0.9	1.3	11.3	280
4	16/0.2	0.5	0.6	0.8	7.2	0.9	1.3	11.6	305
6	16/0.2	0.5	0.6	0.9	8.6	0.9	1.4	13.2	360
10	16/0.2	0.5	0.6	1.1	11.2	0.9	1.5	16	510
20	16/0.2	0.5	0.6	1.2	14.2	1.25	1.6	19.9	960
40	16/0.2	0.5	0.6	1.3	18.7	1.6	1.7	25.3	1440
80	16/0.2	0.5	0.6	1.5	25.8	1.6	1.9	32.8	2200

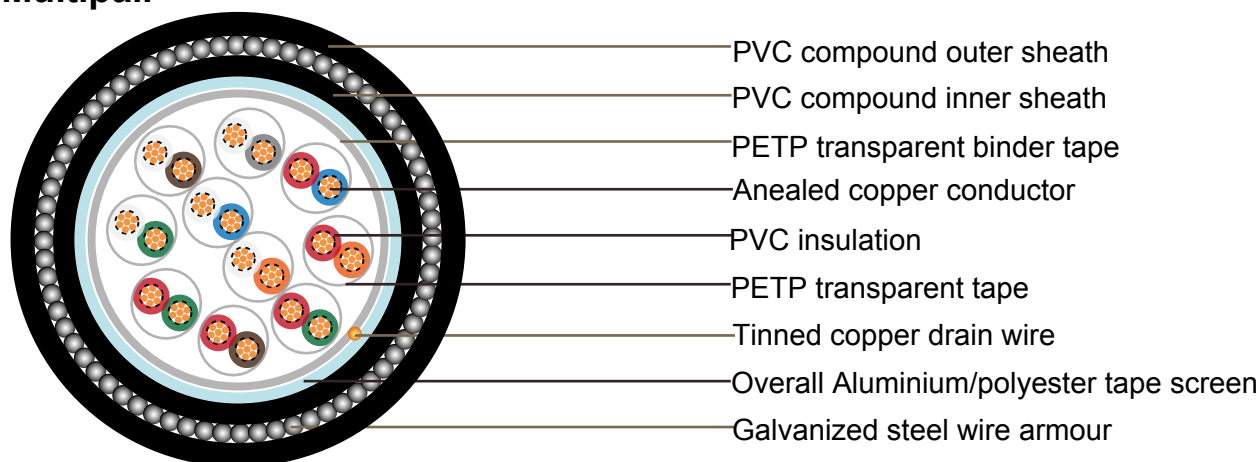
# Caledonian Instrumentation Cables



## BS5308 Part 2

No. of Cores	No. and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of bedding	Nominal Dia. over Bedding	Nominal Thickness of Armour	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm <sup>2</sup>	mm	mm	mm	mm	mm	mm	kg/km
2	24/0.2	0.75	0.6	0.8	7.2	0.9	1.3	11.2	280
3	24/0.2	0.75	0.6	0.8	7.2	0.9	1.3	11.6	305
4	24/0.2	0.75	0.6	0.8	7.8	0.9	1.3	12.4	335
6	24/0.2	0.75	0.6	0.9	9.4	0.9	1.4	14	400
10	24/0.2	0.75	0.6	1.1	12.2	0.9	1.5	17	565
20	24/0.2	0.75	0.6	1.2	15.6	1.25	1.6	21.3	950
40	24/0.2	0.75	0.6	1.3	20.6	1.6	1.7	27.4	1590
80	24/0.2	0.75	0.6	1.5	28.5	1.6	1.9	35.7	2450
2	7/0.53	1.5	0.6	0.8	8	0.9	1.4	12.6	330
3	7/0.53	1.5	0.6	0.9	8.2	0.9	1.4	12.8	380
4	7/0.53	1.5	0.6	0.9	9	0.9	1.4	13.6	420
6	7/0.53	1.5	0.6	1.1	11	0.9	1.4	15.6	540
10	7/0.53	1.5	0.6	1.2	14	1.25	1.6	19.7	750
20	7/0.53	1.5	0.6	1.3	17.9	1.6	1.7	24.5	1260
40	7/0.53	1.5	0.6	1.5	24	1.6	1.9	31	2140
80	7/0.53	1.5	0.6	1.7	32.9	2	2.1	41.1	3300

### Multipair



No. of pairs	No. and Dia. of Wires	Nominal Conductor Cross-Sectional Area	Nominal Thickness of Insulation	Nominal Thickness of bedding	Nominal Dia. over Bedding	Nominal Thickness of Armour	Nominal Thickness of Sheath	Nominal Dia. of Cable	Approx. Weight
	no./mm	mm <sup>2</sup>	mm	mm	mm	mm	mm	mm	kg/km
1	16/0.2	0.5	0.6	0.8	6.2	0.9	1.3	10.6	260
2	16/0.2	0.5	0.6	0.8	7.1	0.9	1.3	11.5	305
5	16/0.2	0.5	0.6	1.1	12.4	0.9	1.5	17.2	610
10	16/0.2	0.5	0.6	1.2	16.5	1.25	1.6	22.2	1060
15	16/0.2	0.5	0.6	1.3	19.2	1.6	1.7	25.8	1330
20	16/0.2	0.5	0.6	1.3	21.7	1.6	1.8	28.5	1800
30	16/0.2	0.5	0.6	1.5	26.4	1.6	1.9	33.4	1980
50	16/0.2	0.5	0.6	1.7	33.4	2	2.1	41.6	3070
1	24/0.2	0.75	0.6	0.8	6.7	0.9	1.3	11.1	305
2	24/0.2	0.75	0.6	0.8	7.7	0.9	1.4	12.3	360
5	24/0.2	0.75	0.6	1.2	13.8	1.25	1.5	19.3	820
10	24/0.2	0.75	0.6	1.3	18.4	1.6	1.7	25	1250
15	24/0.2	0.75	0.6	1.3	21.1	1.6	1.8	27.9	1600
20	24/0.2	0.75	0.6	1.5	24.4	1.6	1.8	31.2	1800
30	24/0.2	0.75	0.6	1.7	29.6	2	2	37.6	2570
50	24/0.2	0.75	0.6	2	37.4	2.5	2.3	47.3	3800
1	7/0.53	1.5	0.6	0.8	7.5	0.9	1.4	12.1	360
2	7/0.53	1.5	0.6	0.9	8.8	0.9	1.4	13.4	460
5	7/0.53	1.5	0.6	1.2	15.6	1.25	1.6	21.3	1040
10	7/0.53	1.5	0.6	1.3	20.9	1.6	1.8	27.7	1610
15	7/0.53	1.5	0.6	1.5	24.6	1.6	1.9	31.6	2060
20	7/0.53	1.5	0.6	1.5	27.8	1.6	2	35	2630
30	7/0.53	1.5	0.6	1.7	33.7	2	2.1	41.9	3460
50	7/0.53	1.5	0.6	2	43	2.5	2.4	52.8	5520