

**CONSTRUCTION - PVC CABLES 0.6 /1 kV**

# CONTROL 1.5 MM<sup>2</sup> 2-50C+E SWA

PVC INSULATED LAID UP PVC BEDDED GSW ARMoured AND PVC SHEATHED CONTROL CABLE TO AS/NZS 5000.1.

For control circuits unenclosed, enclosed in conduit, buried direct or in underground ducts for commercial, industrial, mining and electricity authority systems where mechanical damage may occur. The 90°C cable is used where improved aging properties to those of 75°C PVC insulated cable are required because of higher ambient temperatures.



## Cable Characteristics



Semi-rigid



12D



2


 Water  
Splashes


Good


 +75 °C  
-15 °C


C3



Good

## Cable Design

### CONDUCTOR:

Plain annealed copper conductor to AS/NZS 1125  
Maximum continuous operating temperature: 75 °C

Can also be operated at temperatures up to 90 °C when not exposed to mechanical deformation (see AS/NZS 3008.1)

### INSULATION:

V-90 PVC  
Colours: White with Black numbering, Green/Yellow

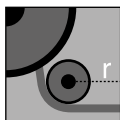
### ARMOUR:

Steel wire armour

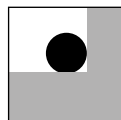
### SHEATH:

5V-90 PVC  
Colours: Orange, Black

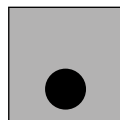
## Installation Conditions


 INDUSTRIAL  
EQUIPMENT


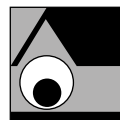
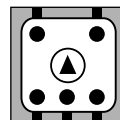
18D



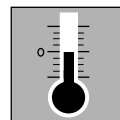
IN FREE AIR



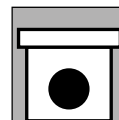
IN GROUND


 IN  
CONDUIT


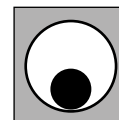
MACHINES



0 °C



IN TRENCH



IN DUCT

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## Physical & Electrical Characteristics

Product code	Cable									Min. installed bending radius mm
	Conductor nominal C.S.A. mm <sup>2</sup>	Number of cores	Nominal insulation thickness mm	Diameter under armour		Armour wire diameter mm	Overall diameter		Approx. mass kg/100 m	
				Minimum mm	Maximum mm		Minimum mm	Maximum mm		
1.52CECONA	1.5	2	0.8	8.4	9.1	1.25	14.5	15.6	48	190
1.53CECONA	1.5	3	0.8	9.3	9.9	1.25	15.4	16.4	54	200
1.54CECONA	1.5	4	0.8	10.2	10.9	1.25	16.3	17.3	61	210
1.55CECONA	1.5	5	0.8	11.5	12.3	1.25	17.7	18.7	66	230
1.56CECONA	1.5	6	0.8	11.5	12.3	1.25	17.7	18.7	68	230
1.57CECONA	1.5	7	0.8	13.5	14.2	1.25	19.6	20.6	78	250
1.58CECONA	1.5	8	0.8	14.4	15.2	1.25	20.5	21.6	85	260
1.510CECONA	1.5	10	0.8	14.7	15.4	1.25	20.8	21.9	89	260
1.512CECONA	1.5	12	0.8	15.2	15.8	1.25	21.3	22.3	95	270
1.515CECONA	1.5	15	0.8	16.8	17.6	1.25	22.9	24.1	109	290
1.520CECONA	1.5	20	0.8	19.7	20.5	1.60	26.5	27.6	146	340
1.525CECONA	1.5	25	0.8	20.9	21.7	1.60	27.7	28.8	160	350
1.530CECONA	1.5	30	0.8	23.1	23.9	1.60	29.8	31.1	181	370
1.540CECONA	1.5	40	0.8	25.9	26.7	1.60	32.9	34.1	217	410
1.550CECONA	1.5	50	0.8	28.8	29.3	2.00	37.0	37.9	277	460

Number of cores	Current rating (a)			Electrical characteristics	
	Unenclosed spaced A	Buried direct A	Underground in duct A	Maximum D.C. resistance at 20°C Ω/km	Reactance per core Ω/km
2	19	28	22	13.6	0.111
3	16	24	19	13.6	0.111
4	16	24	19	13.6	0.111
5	14	24	14	13.6	0.111
6	13	22	13	13.6	0.111
7	13	22	13	13.6	0.111
8	12	21	12	13.6	0.111
10	11	19	11	13.6	0.111
12	11	18	11	13.6	0.111
15	10	17	10	13.6	0.111
20	9	15	9	13.6	0.111
25	8	14	8	13.6	0.111
30	8	13	8	13.6	0.111
40	7	12	7	13.6	0.111
50	7	12	7	13.6	0.111

(a) Based on 75 °C conductor temperature, 40 °C ambient air temperature and where applicable, burial depth of 0.5 m, soil temperature of 25 °C and soil thermal resistivity of 1.2 °C.m/W. Refer to AS/NZS 3008.1 for other installation conditions.

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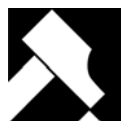
## CABLE HANDLING

### Cable Usage Characteristics



#### AMBIENT TEMPERATURE

Maximum operating temperature  
Minimum operating temperature



#### MECHANICAL IMPACT RESISTANCE

1	Light Impact
2	Moderate Impact
3	Heavy Impact
4	Very Heavy Impact



#### RESISTANCE TO SOLAR RADIATION AND WEATHER

Excellent	Permanent
Very Good	Frequent
Good	Occasional
Acceptable	Accidental
Poor	None



#### BEHAVIOUR IN FLAME AND FIRE

Reaction To Fire	Resistant To Fire
C 1 Fire retardant	Level 1 Ultimate fire survival
C 2 Flame retardant	Level 2 Two hours fire survival
C 3 No fire performance	Level 3 Restrained spread & self extinguishing



#### HALOGEN FREE

AS/NZS 4507



#### MINIMUM BENDING RADIUS

Minimum bending radius of installed cables



#### CHEMICAL RESISTANCE

Excellent	Permanent
Very Good	Frequent
Good	Occasional
Acceptable	Accidental
Poor	None



#### RESISTANCE TO WATER

Negligible	No humidity
Water Drops	Occasional condensation
Spray	Water run off
Splashes	Exposed to water splashes
Heavy Sea	Exposed to waves
Immersion	Temporarily covered by water
Submersion	Permanently covered by water



#### FLEXIBILITY

Rigid	Flexible
Semi-rigid	Very flexible



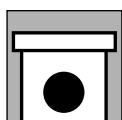
#### LOW SMOKE EMISSION

AS/NZS 4507

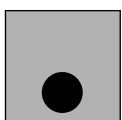
### Laying Conditions



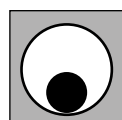
MINIMUM BENDING RADIUS DURING INSTALLATION



IN TRENCH



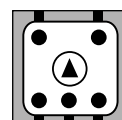
IN GROUND



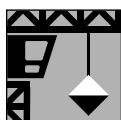
IN DUCT



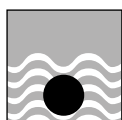
DOMESTIC APPLIANCES



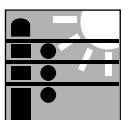
MACHINES



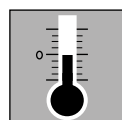
MOBILE EQUIPMENT



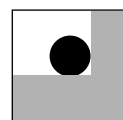
SUBMERGED



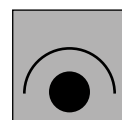
OVERHEAD AERIAL



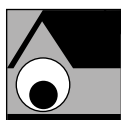
MIN. INSTALLATION TEMPERATURE



IN FREE AIR



IN GROUND WITH PROTECTION



IN CONDUIT



OUTDOOR APPLIANCES



FESTOON



INTERNAL WIRING



INDUSTRIAL EQUIPMENT



EXTERNAL BUILDING

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