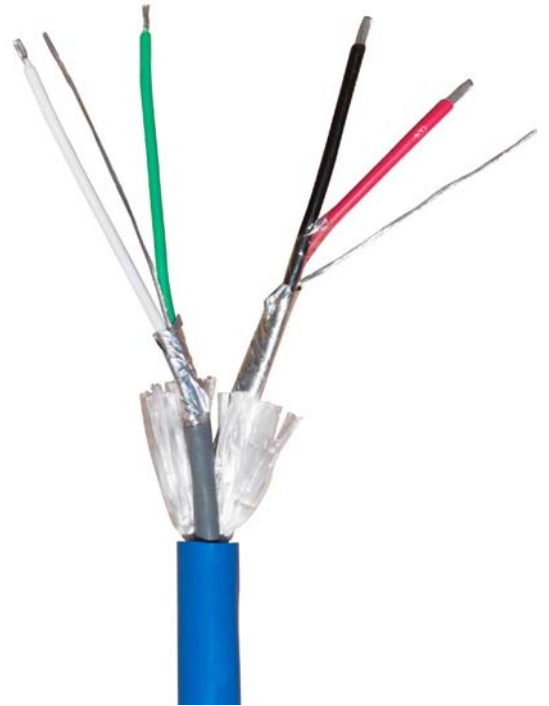


- ✂ **4.0mm<sup>2</sup> twisted pair with screen**
- ✂ **1.5mm<sup>2</sup> twisted pair with screen**
- ✂ **PE insulation**
- ✂ **PVC outer sheath**
- ✂ **Low mutual inductance**
- ✂ **Low L/R ratio**
- ✂ **Flame retardant PVC sheath**
- ✂ **IEC/AS/NZS 60079-25 cable type A compliant**
- ✂ **CAC2P2FNP - MSHA Approved**



## DESCRIPTION

Cable type A09.1 and A09.2 part number CAC2P2FNP is designed for sensors networks. The cable provides power to the sensor via the 4mm<sup>2</sup> pair and sensor data via the 1mm<sup>2</sup> pair.

The CAC2P2FNP cable consists of two main elements, a screened 4mm<sup>2</sup> twisted pair and a screened 1.5mm<sup>2</sup> twisted pair.

The 4mm<sup>2</sup> pair is made up of 56 strands of 0.3mm tinned copper wire while the 1mm<sup>2</sup> pair is made up of 30 strands of 0.25mm tinned copper wire to provide maximum strength and flexibility. All conductors are insulated with PE.

Both pairs are screened using a foil tape and a 24/0.2 TC drain conductor.

The outer sheath is constructed from HI-FLEX flame retardant PVC and is coloured blue or purple.

This cable has particularly good L/R ratios despite the large CSA of the conductors.

Every batch of Austdac cable is quality controlled, inspected and tested to ensure that the specified Exi electrical parameters  $C_c$ ,  $L_c$  and  $L_c/R_c$  are not exceeded and within tolerance.

This gives our customer's confidence in the safety of their network installations knowing that any IEC/AS/NZS 60079-25 installation assessment is using reliable and safe cable data.



## SPECIFICATION

### POWER ELEMENT

Construction	56/0.3
Cross sectional area	4mm <sup>2</sup>
Material	Tinned copper
Resistance nominal	0.00489Ω/m @ 25°C
Insulation	PVC
Insulation colour	Red and Black
Insulation radial thickness	0.6mm
Insulation diameter	3.8mm
Screen	Foil tape
Drain construction	24/0.2
Drain material	Tinned copper
Drain cross sectional area	0.75mm <sup>2</sup>
Capacitance C <sub>c</sub>	390pF/m max
Mutual inductance L <sub>c</sub>	0.586uH/m max
L/R ratio L <sub>c</sub> /R <sub>c</sub>	60uH/Ω max

### SIGNAL ELEMENT

Construction	30/0.25
Cross sectional area	1.5mm <sup>2</sup>
Material	Tinned copper
Resistance nominal	0.0131Ω/m @ 25°C
Insulation	PVC
Insulation colour	Green and White
Insulation radial thickness	0.6mm
Insulation diameter	3.2mm
Screen	Foil tape
Drain construction	24/0.2
Drain material	Tinned copper
Drain cross sectional area	0.75mm <sup>2</sup>
Capacitance C <sub>c</sub>	200pF/m max
Mutual inductance L <sub>c</sub>	0.786uH/m max
L/R ratio L <sub>c</sub> /R <sub>c</sub>	30uH/Ω max

### OUTER SHEATH

Material	Flame retardant PVC
Colour	Blue or Purple
Outside diameter	17mm max
Text height	5mm
Text colour	Black
Text repeat	1m

### GENERAL

Bending radius	100mm min
Temperature	-20°C to +60°C

## ORDERING DETAILS

DESCRIPTION	COLOUR	ORDER CODE
SENSOR COMMS CABLE TYPE A09.1	BLUE	CAC2P2FNP
SENSOR COMMS CABLE TYPE A09.2	PURPLE	CAC2P2FNP1



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