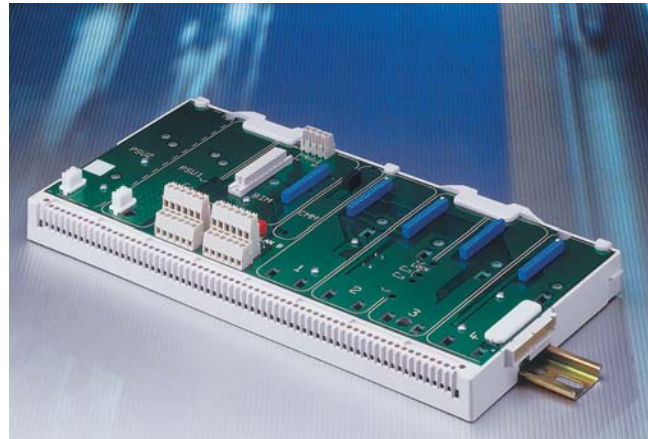


## Node services carrier

8711-CA-NS

- ◆ Modbus BIM
- ◆ accommodates one BIM, two PSUs and four I/O modules
- ◆ screw terminals for LAN
- ◆ DIN rail or panel mounting
- ◆ printed wiring board
- ◆ rugged polycarbonate moulding
- ◆ routes Bussed Field Power to I/O modules
- ◆ isolated earthing bar for cable screen/shield



### CARRIER SPECIFICATION

See also System Specification

#### CARRIER MOUNTING MODULES

**PSU Modules (main and redundant)** .....8910-PS-DC  
**Bus Interface Module** .....(Modbus) 8505-BI-MB  
**Node Services Module** .....8510-NS-MO  
**I/O modules** .....general purpose (2/2) various

#### HAZARDOUS AREA APPROVALS

##### Location of node

.....Class 1, Div 2, Groups A, B, C, D T4 hazardous location or  
 .....Zone 2, IIC T4 hazardous area

**Location of field wiring** .....As per node

**Field terminals accepted** .....General purpose or Zone 2/Div 2

**I/O modules accepted** .....General purpose or Zone 2/Div 2

#### ELECTRICAL

**Railbus connector** .....male out

##### External dc power supply (optional)

A 6-pin connector is provided at the top/rear of the carrier to connect a 12.0 V dc ( $\pm 5\%$ ) power supply. This is an alternative to the carrier mounted PSU modules.

##### Bussed field power supply (optional)

An 8-pin connector is provided at the top rear of the carrier to connect power supplies for 'field power'. Such supplies are routed through certain I/O module to provide power to field circuits.

#### LAN CONNECTORS

**LAN A** .....6-way, screw-terminal (x2)

**LAN B** .....6-way, screw-terminal (x2)

#### MATERIALS

**Carrier moulding** .....Modified poly-phenylene oxide  
**Printed wiring board** .....Epoxy resin woven glass laminate

#### ENVIRONMENTAL

##### Ambient temp

Operating .....- 40°C to + 70°C

Storage .....- 40°C to + 85°C

**Relative Humidity** .....5 to 95% RH (non-condensing)

**Vibration and Shock** .....See System specification sheet

#### MECHANICAL

**Dimensions** .....342 (w) x 170 (d) x 22 (h) mm

**Weight (approx.)** .....680 g

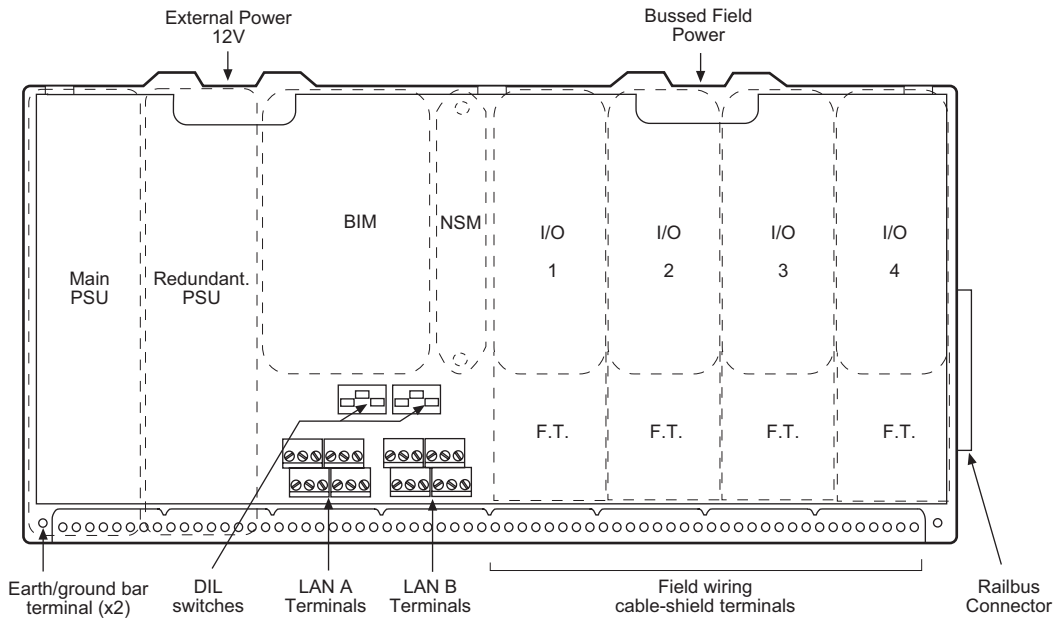
**Mounting methods** .....Flat panel (4 fixings) or DIN rail

##### DIN-rail types

.....'Top hat', 7.5 x 35 mm or 15 x 35 mm to EN 50022

.....G-section, to EN 50035





### LAN INTERFACE

| Terminal | Assignment |
|----------|------------|
| 1        | Rx +       |
| 2        | Tx +       |
| 3        | Rx -       |
| 4        | Tx -       |
| 5        | Gnd        |
| 6        | Gnd        |



Each LAN has duplicate connections wired in parallel - pin 1 to pin 1, pin 2 to pin 2, etc.

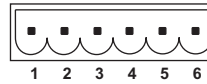
### LAN DIL SWITCHES

One switch block per LAN. Operating mode set with switches.

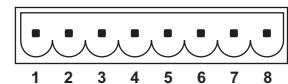
| Mode  | Switch positions | Termination         |
|---|------------------|---------------------|
| <b>Mode 1:</b> RS422                          | ON ON ON<br>     | -                   |
| <b>Mode 2:</b> RS485<br>no termination        | ON ON OFF<br>    | -                   |
| <b>Mode 3:</b> RS485<br>terminated            | ON ON OFF<br>    | +<br>               |
| <b>Mode 4:</b> RS485<br>terminated and biased | OFF OFF OFF<br>  | +V <sub>T</sub><br> |

### POWER SUPPLY CONNECTIONS

#### External Power



#### Bussed Field Power



| Terminal | External Power | Bussed Field Power                      |
|----------|----------------|---|
| 1        | Test Point 1   | } I/O Modules 1 & 2<br>-ve (or Neutral) |
| 2        | 0 V            |   |
| 3        | +12 V          | } I/O Modules 1 & 2<br>+ve (or Live)    |
| 4        | +12 V          |   |
| 5        | 0 V            | } I/O Modules 3 & 4<br>+ve (or Live)    |
| 6        | Test Point 2   |   |
| 7        | Not applicable | } I/O Modules 3 & 4<br>-ve (or Neutral) |
| 8        | Not applicable |   |

Pins for power supplies are provided in pairs. This enables one pin to be used for the supply input and the second to loop to another connector, when required.

