

## IS module power supply

8920-PS-DC

- ◆ power for 2/1 (IS) modules
- ◆ 12 V DC output
- ◆ 24 V DC (nominal) input
- ◆ 5 A capacity
- ◆ supports load sharing for redundancy

### MODULE SPECIFICATION

#### HAZARDOUS AREA APPROVALS

**Location of power supply** ..... Safe area or  
 ..... Class 1, Div 2, Group A, B, C, D hazardous location  
 ..... Zone 2, IIC T4 hazardous area

**Output** ..... Galvanically isolated  
 ..... Voltage clamped; Un = 18 V

#### Applicable standards:

- ◆ Factory Mutual Research Co., Class No. 3611 for Class I, Division 2, Groups A, B, C, D hazardous locations
- ◆ Factory Mutual Research Co., Class No. 3610 for Class I, II, III, Division 1, Groups A - G hazardous locations (IS circuits)
- ◆ EN 50020:1994 Electrical apparatus for potentially explosive atmospheres, intrinsic safety "i"
- ◆ EC Directive 94/9/EC (ATEX)

#### ELECTRICAL

**EMC compliance** ..... To EN 50081-2 and EN 50082-2  
 ..... generic emission/immunity standards  
 ..... EN 61000-3-2:1995 EN 61000-3-3:1995

**Electrical safety** . EN 61010-1:1993 and Amendment A2:1995  
 ..... and EN 61131-2:1994

#### OUTPUT

**Output voltage**.....12 V dc  $\pm$  5%

**Output current** .....5 A

**Input/Output isolation** 250 V ac rms(tested at 1500 V ac rms)

#### INPUT

**Input voltage**.....18.5–36 V dc

**Efficiency** (at full load)

18.5 V input at 4.1 A .....76%

24 V input at 3.3 A.....78%

36 V input at 2.1 A .....76.5%

**Input connection** .....2-part screw terminal, each duplicated

**Cable size** .....2.5 mm<sup>2</sup> (max.)



#### ENVIRONMENTAL

**Operating temperature** (no forced ventilation)

(60% of full load) .....– 40°C to + 70°C

Optimum orientation(full load) .....– 40°C to + 55°C

Worst case orientation .....– 40°C to + 50°C

Storage.....– 40°C to + 85°C

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

**Vibration** .....2 g @ 10-100 Hz to BS EN 60068-2-6  
 .....and BS 2011- part 2.1

**Shock** .....10 g, 11 ms pulse width, to BS EN60068-2-27

**MTBF** @ 50°C external ambient .....80,000 hrs

**Ingress Protection** .....IP20 to IEC 529/BS EN 60529  
 (tested on power supply carrier with all supply connectors in place)

**Corrosive atmospheres:** To withstand gaseous corrosion level G3 as defined by ISA Standard SP71.04:1995, when protected by a suitable field enclosure.

#### MECHANICAL

**Dimensions** (approx.).....84 (w) x 110 (h) x 160 (d) mm

**Carrier mounting** .....type 8724-CA-PS

**Weight**.....1290 g