

9121-IS FISCO POWER SUPPLY - IIC / GROUPS A-D

- ◆ 120mA output current: supports 8 x 15mA IS fieldbus devices per power supply
- ◆ Fieldbus repeater
- ◆ Multidrop isolators on single fieldbus link
- ◆ 250V ac input/output/power supply isolation
- ◆ Switch selectable terminator on host side
- ◆ Fixed terminator on IS side
- ◆ Switch selectable power for host side
- ◆ Mountable in Zone/Division 2

MODULE SPECIFICATION

See also Common Specification

OUTPUT

Number of channels

One

Voltage

12.4V (min.) at 25°C (see note)

Design current

0 to 120mA

Current limit

>140mA

Output ripple

Complies with clause 22.6.2 of the fieldbus standard†

Minimum load

No load

Maximum cable length

Determined by IS load, see MTL Application Note AN9026 for details

Isolation

Input to output: 250V ac rms

Input and output to power supply: 250V ac rms

$U_m = 250V$ rms

INPUT

Input voltage

19.2 - 30V dc

Current consumption:

235mA (typical) 330mA (max.) at 20V

190mA (typical) 265mA (max.) at 24V

155mA (typical) 215mA (max.) at 30V

Power dissipation with 110mA load:

2.9W (typical) 4.3W (max.)

Input protection

Fuse + supply reversal diode

Note: Temperature coefficient 12mV/°C. If the power supply and fieldbus cable are operated at low temperatures, the reduced resistance of the cable more than compensates for the reduction in output voltage.

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† The applicable fieldbus specifications and standards are:

- FOUNDATION™ Fieldbus 31.25 kb/s Physical Layer Profile Specification, document FF-816.
- IEC 61158-2: 2000.
- ISA-S50.02-1992 for 31.25 kb/s fieldbus systems.



SAFETY

Location of module

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

Location of field wiring

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

Field wiring protection

Intrinsically safe

Certification Code

II(2) GD [EEx ib] IIC, II 3 GD EEx nA IIC T4.

Safety description

14V, 180mA, 2.52W, 0.20μF*, 300μH*

FM entity parameters

14V, 180mA, 2.52W, 0.20μF*, 300μH*

ATEX certificate numbers

MTL02ATEX9121

BAS02ATEX7276

FM certificate number

J.I.3012571

Certification is compatible with

Fieldbus FOUNDATION FF816-FISCO.

IEC/TS 60079-27 FISCO Technical Specification.

EC Directive 94/9/EC (ATEX 100A)

MECHANICAL

Mounting

DIN rail/surface mounting

Module width

42mm

Weight

360g

LED INDICATORS

	OFF	ON
Power (green)	Power fail	Power OK
Fault (red)	Normal	Fault
Host Comm (yellow)	Comms failure	Comms OK
IS Comm (yellow)	Comms failure	Comms OK

* When used in accordance with IEC/TS 60079-27, there is no need to take into consideration C_0 and L_0 .



9122-IS FISCO POWER SUPPLY - IIB / GROUPS C, D

- ◆ 265mA output current: supports more than 16 x15mA IS fieldbus devices per power supply
- ◆ Fieldbus repeater
- ◆ Multidrop isolators on single fieldbus link
- ◆ 250V ac input/output/power supply isolation
- ◆ Switch selectable terminator on host side
- ◆ Fixed terminator on IS side
- ◆ Switch selectable power for host side
- ◆ Mountable in Zone/Division 2

MODULE SPECIFICATION

See also *Common Specification*

OUTPUT

Number of channels

One

Voltage

13.1V (min.) at 25°C (see note)

Design current

0 to 265mA

Current limit

>285mA

Output ripple

Complies with clause 22.6.2 of the fieldbus standard†

Minimum load

No load

Maximum cable length

Determined by IS load, see MTL Application Note AN9026 for details

Isolation

Input to output: 250V ac rms
 Input and output to power supply: 250V ac rms
 $U_m = 250V$ rms

INPUT

Input voltage

19.2 - 30V dc

Current consumption

380mA (typical) 495mA (max.) at 20V
 315mA (typical) 410mA (max.) at 24V
 255mA (typical) 330mA (max.) at 30V

Power dissipation with 250mA load

4.1W (typical) 6W (max.)

Input protection

Fuse + supply reversal diode

Note: Temperature coefficient 12mV/°C. If the power supply and fieldbus cable are operated at low temperatures, the reduced resistance of the cable more than compensates for the reduction in output voltage.

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† The applicable fieldbus specifications and standards are:

- FOUNDATION™ Fieldbus 31.25 kb/s Physical Layer Profile Specification, document FF-816.
- IEC 61158-2: 2000.
- ISA-S50.02-1992 for 31.25 kb/s fieldbus systems.



SAFETY

Location of module

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

Location of field wiring

Zone 1, IIB T4 hazardous area or Class 1, Div 1, Groups C, D T4 hazardous location.

Field wiring protection

Intrinsically safe

Certification Code

II(2) GD [EEx ib] IIB, II 3 GD EEx nA IIB T4.

Safety description

14.8V, 359mA, 5.31W, 0.50µF*, 550µH*

FM entity parameters

14.8V, 359mA, 5.31W, 0.50µF*, 550µH*

ATEX certificate numbers

MTL02ATEX9122
 BAS02ATEX7277

FM certificate number

J.I.3012571

Certification is compatible with

Fieldbus FOUNDATION FF816-FISCO.
 IEC/TS 60079-27 FISCO Technical Specification.
 EC Directive 94/9/EC (ATEX 100A)

MECHANICAL

Mounting

DIN rail/surface mounting

Module width

42mm

Weight

360g

LED INDICATORS

	OFF	ON
Power (green)	Power fail	Power OK
Fault (red)	Normal	Fault
Host Comm (yellow)	Comms failure	Comms OK
IS Comm (yellow)	Comms failure	Comms OK

* When used in accordance with IEC 60079-27, there is no need to take into consideration C_0 and L_0 .

