

**For power in Zone 1 or
Zone 2 hazardous
areas**

MTL920 SERIES

power supplies



- ◆ **IS power supplies**
- ◆ **Zone 1 or Zone 2 mounting**
- ◆ **Models for IIB and IIC gas groups**
- ◆ **Provides direct wiring to field devices**
- ◆ **Powers wide range of IS loops**
- ◆ **Ideal for powering block I/O**
- ◆ **Permits live working**
- ◆ **Installed in enclosure without additional certification**

In addition to those power supplies which form part of the MTL4000 and MTL5000 series of isolators, MTL provides the MTL920 Series of hazardous-area mounting IS power supplies.

Two explosion-protection techniques are incorporated – intrinsic safety (Ex ia) for the output circuits, and encapsulation (Ex m), for the input circuits – to allow mounting in Zone 1 or Zone 2 locations.

A key part of the MTL8800L block I/O system, MTL920 Series provides external power for field instruments in MTL8842L DO or MTL8851L AI/AO applications.

The series also has applications where IS power is required in the hazardous area for instrumentation such as radio transmitters, relays, LCD panel meters, LED indicators, data loggers and Ex'e' battery charging applications.

Specifically, the MTL920 Series provides Zone 1 mounting, encapsulated, power supplies with four isolated outputs and is certified as EEx m [ia] T4. Two input options are available, 110V ac and 230V ac (nominal), as are models for different gas groups, IIB and IIC. By terminating the input power lead in a suitable Ex e or Ex d junction box the power supply can be installed in a suitable weatherproof enclosure without further certification. As all the wiring accessible within this enclosure is intrinsically safe, live working is permissible.

Designed to power a wide range of IS loops, the MTL 920 Series is particularly ideal for powering field devices with MTL8842L DO blocks and MTL8851L AI/AO blocks. The arrangement of positive, negative and linked terminals allows direct wiring to field devices and the I/O block, eliminating the need for further terminals.



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MTL920 SERIES HAZARDOUS-AREA IS POWER SUPPLIES SPECIFICATIONS



Location

MTL92xA Zone 1 or 2, IIC, T4 hazardous area
 MTL92xB Zone 1 or 2, IIB, T4 hazardous area
 MTL92xC Zone 1 or 2, IIC, T4 hazardous area

Input voltage

MTL922x 85-135V ac, 47-63Hz
 MTL923x 170-265V ac, 47-63Hz

Input protection

Current and thermal fuses

Input isolation

250V ac (EN50020 and EN61010-1)

Number of outputs

4

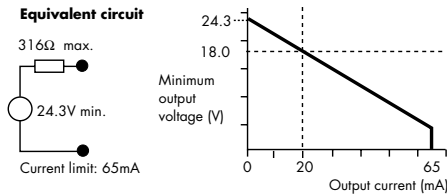
Output voltage options

MTL92xA – for transmitters and I/P converters, IIC

Maximum output voltage 24.3V from 316Ω

Safety description (for each output)

$U_o = 28V, I_o = 93mA, P_o = 0.65W$

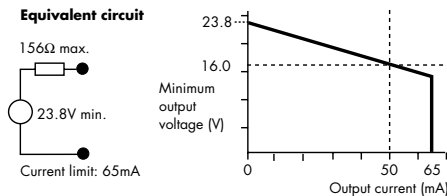


MTL92xB – for solenoids and alarms, IIB

Maximum output voltage 23.8V from 156Ω

Safety description (for each output)

$U_o = 28V, I_o = 185mA, P_o = 1.3W$

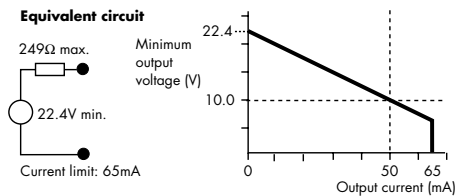


MTL92xC – for solenoids and alarms, IIC

Maximum output voltage 22.4V from 249Ω

Safety description (for each output)

$U_o = 25.5V, I_o = 108mA, P_o = 0.68W$



Output isolation

60V dc (EN50020 and EN61010-1)

Thermal protection

Output short circuit, duration indefinite

Connections

Screw clamps (2.5mm² max. cable)

Each output has a positive, a negative and two linked terminals

Output indicators

Green LED per output, "Power OK"

Weight

2kg (approx.)

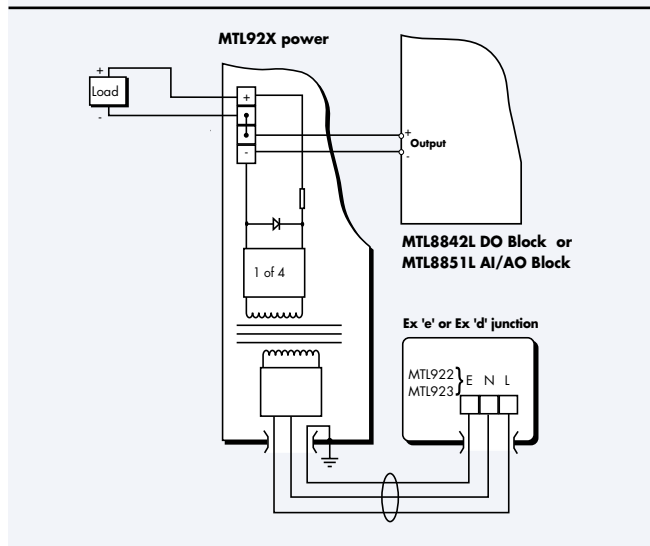
Case material

Stainless steel

Mounting

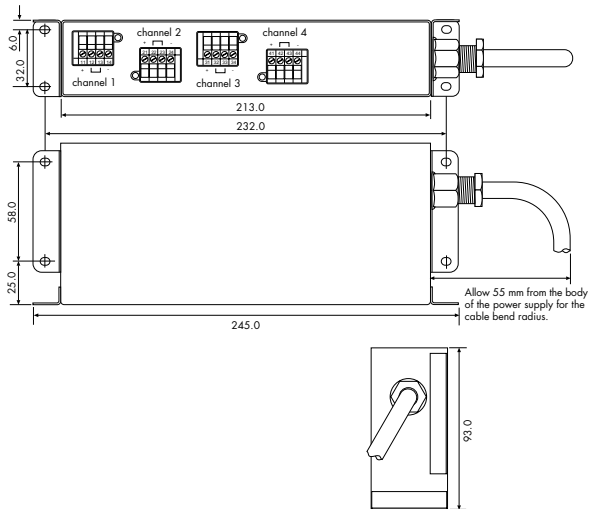
Surface mounting brackets (vertical or horizontal orientation)

Hazardous area



Module	Group	BASEEFA		
		µF	mH	µH/Ω
MTL922A/ MTL923A	IIC	0.083	4.2	55
	IIB	0.65	12.6	220
MTL922B/ MTL923B	IIB	2.15	33.6	440
	IIC	0.65	4.5	111
MTL922C/ MTL923C	IIB	2.15	8.2	221
	IIC	0.104	3.3	52
	IIB	0.800	13	210
	IIB	2.78	25	421

DIMENSIONS (mm)



APPROVALS

Country (Authority)	UK (BASEEFA)	UK (BASEEFA) systems
Standard	EN50014, EN50020 and EN50028	EN50039
Approved for	EEx m [ia] IIC *(IIB only)	EEx ia IIC *(IIB only)
Model	Certificate/file no.	
MTL922A	BAS99ATEX2244X	Ex00E2048
MTL922B	BAS99ATEX2245X*	Ex00E2037*
MTL922C	BAS99ATEX2244X	Ex00E2048
MTL923A	BAS99ATEX2244X	Ex00E2048
MTL923B	BAS99ATEX2245X*	Ex00E2037*
MTL923C	BAS99ATEX2244X	Ex00E2048

