

Technology is advancing daily, inevitably resulting in increased costs for many industries. However, capital expenditure for many companies has been reduced, making it impossible to stay up-to-date with the latest technology.



Customer Benefits:

- Suitable for new applications
- Upgrade of existing GEM80 systems
- Powerful programming tools
- Traditional, reliable unit
- Modular construction
- Extensive diagnostics
- Powerful GEM80 ladder language
- Range of communication options

Increasingly, companies are under pressure to extend the lives of their current systems and to look for cost-effective alternatives. To meet customer demands the GEM80-500 is a low cost solution for new and existing GEM80 systems.

The GEM80 range of PLCs is proven technology in many industries all around the world.

World-wide experience for dedicated solutions

The GEM80-500 is a flexible and powerful programmable logic controller suitable for new applications and compatible with existing I/O for the upgrade of installed GEM80 systems.

The GEM80-500 has been designed to be a compact and self-contained unit with an integral AC or DC power supply. It can be configured for either panel mounting or subrack mounting to meet your specific requirements.

The controller requires the use of plug in sub-modules to configure the system.

These sub-modules allow the GEM80-500 to support Ethernet, Serial and Fieldbus Communications, Basic and Verification I/O and Distributed I/O structures.

The GEM80-500 uses PC104+ architecture and enables a range of expansion modules to be plugged into the controller. These include:

- TCP/IP Ethernet compatible with GEMLAN-T
- FIP – WorldFIP (IEC61158-2)
- Profibus – DeviceNet
- Up to 4 serial ports
- Basic/Verification I/O

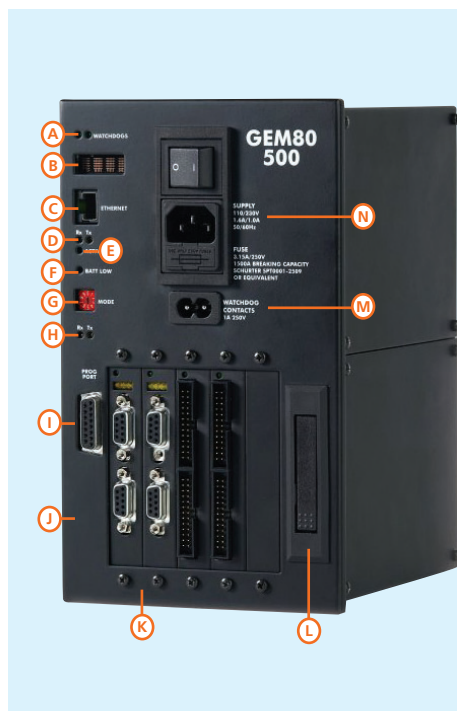
The new controller can connect to your existing GEM80 I/O using a choice of I/O expansion modules including:

- 256 bits Basic I/O plus 1024 words Verification I/O
- 1024 bits Basic I/O

Successful in many industries

The flexibility and power of the basic systems combined with the sophisticated range of options and enhancements make the GEM80-500 the ultimate answer to any application problems.





- A Watchdogs 'healthy' indicators
- B Status display
- C Ethernet connector
- D Ethernet Rx Tx LEDs
- E Ethernet active LED
- F Battery low LED
- G Mode selector switch
- H Programming Rx Tx LEDs
- I Programming port
- J Front accessible connections
- K Optional modules
- L Handle
- M Watchdog connector
- N IEC connector with
 - ON/OFF switch
 - Mains connector
 - HRC fuse 5 x 20mm

Technical specification

Size (mm)	235x141x173mm (hwxwd)
Weight	3kg
Standards	CE UL/CSA
Enclosure ingress protection	IP20 (to IEC60529)

Environmental specification

Operating	
Temperature	0 to +50°C
Humidity	5 to 95% RH (non-condensing)
Storage and transport	
Temperature	-20 to +70°C
Humidity	5 to 95% RH (non-condensing)

Electrical specification

Supply voltage	88 to 264v AC
Supply frequency	24 to 48v DC
Supply rating	47 to 63Hz
Power consumption	230VA maximum at 100% load
	100W

Specifications subject to change without prior notice

GEM80 has proven to be highly successful in many industries including metals, water, food, automotive, power transportation and oil & gas.

System Specification

Standard specification

- GEM80 ladder logic
- 20 K user instructions in RAM or FLASH memory as standard
- 30 K data tables
- 30 K bytes for user messages
- 4 character status display
- Independent Watchdog
- Real time clock
- Battery-backed data tables, real time clock and user program
- Programming port
- Firmware easily upgradable by the user
- 100 event system log

- I/O interface with optional modules including:
 - 256 bits Basic I/O plus 1024 word of Verification I/O
 - 1024 bits Basic I/O
- Expansion facilities with optional modules, including:
 - Basic I/O Interface
 - Verification I/O Interface
 - TCP/IP Ethernet compatible with GEMLAN-T
 - Profibus Master Interface
 - DeviceNet Slave Interface
 - FIP – WorldFIP (IEC61158-2), slow FIP and FIP (NFC 46-603/4)
 - Upto 4 serial ports RS232/RS485
 - GEMTEQ Scanner Modules each interfacing upto 125 distributed I/O modules

Technical Support

Converteam offers a comprehensive range of services in supporting

our products and systems for all equipment supplied regardless of use.

Technical advice and assistance is available in the application of products for new systems and upgrade projects. Technical manuals and product support literature can be found at www.gem80.com - specifically dedicated to the GEM80 range of products.

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