

DESCRIPTION

The 110V a.c. output block provides a robust interface for driving plant actuators such as solenoids and contactors from a GEM 80 controller. Each block provides four output signals.

As an aid to maintenance and fault finding, an indicator lamp is provided for the state of each output.

The 110V a.c. output block is one of the GEM 80 range of compatible a.c. and d.c. input and output blocks. The I/O blocks plug into a panel which provides terminals for the plant cables. The 8960 Logic I/O Assembly data sheet describes the termination and mounting arrangements.

FEATURES

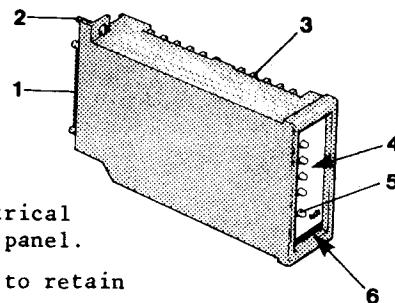
- Suitable for industrial applications
- Rugged plug-in moulded block
- Optical isolation
- Output state indication
- High noise immunity
- Series contacts require no extra suppression
- Designed for inductive loads
- Mechanical coding of block type
- Suitable for both 50Hz and 60 Hz
- Fuse blown indication

SPECIFICATION (whole block)

Number of outputs	: 4
Temperature	: 0 to 70°C operating :-20 to 70°C storage
Humidity	: 10 to 90% non-condensing
Dimensions	: 112 x 48 x 198mm (high x wide x deep)
Weight	: 0.51kg
Front panel colour code	: Red
Power dissipation (load currents 8A total)	: 10W typical
Power consumption from host controller	: 6mA @ +15V (all outputs off) : 30mA @ +15V (all outputs on)

8986

110V 2A A.C. Output Block



1. Plug for electrical connection to panel.
2. Captive screw to retain block on panel.
3. Heat sink.
4. State indicating lamps for four outputs.
5. Fuse blown lamp.
6. Colour code and type number.

SPECIFICATION (each of four outputs)

Load current at 40°C	: 0.05 to 2A operating
Surge current at 40°C	: 15A for 10ms repeatable after 1 second : 7A for 40ms repeatable after 1 second
Plant side power supply voltage	: 88 to 132V operating
Frequency	: 45 to 64 Hz
Voltage drop for ON state	: 1.5V at 2A, 1.3V at 1A typical : 1.7V at 2A, 1.5V at 1A maximum
Leakage current for OFF state	: 10mA maximum
Short circuit protection	: Fault clearance by independent internal 2A fuse for each output
'Fuse blown' indication	: lamp on for any fuse blown.
*Common mode isolation voltage	: 5kV pk transient
*Differential no damage voltage	: 132V continuous
(*complies with class III of IEC 255/E)	
Response time ON	: 10ms maximum
Response time OFF	: 10ms maximum

APPLICATION NOTES

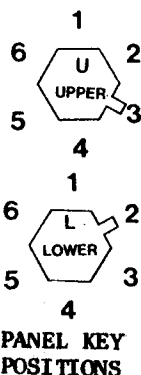
1. WARNING

BLOCKS SHOULD NOT BE REMOVED WITH POWER ON.

2. MECHANICAL CODING

The mechanical coding recesses in the rear of the 110V a.c. output block are factory preset with slots in position U3 and L2.

The user is advised to set the keys on the mechanical coding pillars of the I/O termination panel to the corresponding positions. This ensures that only blocks of the same type are interchangeable.



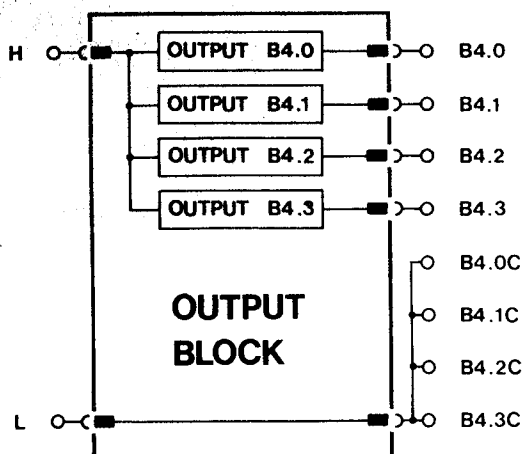
3. DATA LATCHING

A memory within the block remembers and maintains the output states if basic I/O scanning ceases e.g. controller watchdog trip. All outputs switch off if +15V supply from host controller is lost. The states are indeterminate on power up until basic I/O scanning commences.

4. USER CONNECTIONS

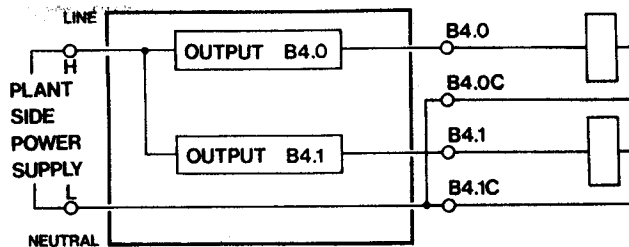
All user connections are made to terminals on the I/O block termination panel.

The output point designations and terminal numbers are determined by the position of the block on the panel. The example below illustrates the connections to the first block on a typical panel, referenced B4.

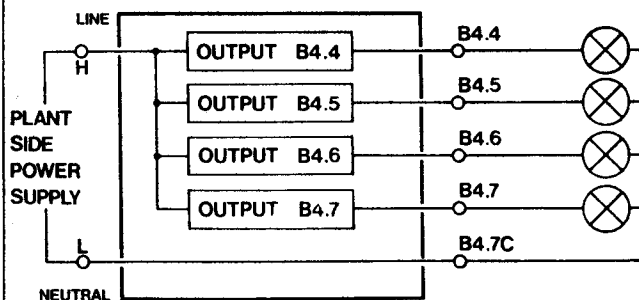


5. TYPICAL CIRCUITS

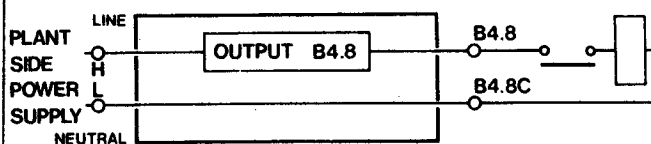
5.1 Individual contactors and solenoids.



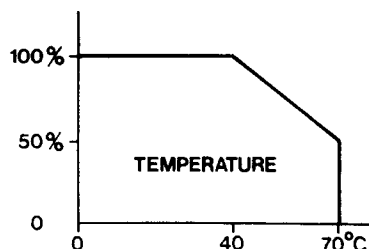
5.2 Output group with common wire



5.3 Series contact e.g. ultimate safety



6. DERATING



Above graph applies to derating of continuous load current and surge currents.

7. ORDERING CODES

110V 2A a.c. output block	8986
Spare Fuse	82022/157

Note: The Company's policy is one of continuous development and improvement and therefore the right is reserved to supply products which may differ in detail from those described and illustrated in this publication. All our products and materials are sold subject to Conditions of Sale available from us on request.

GEC Electrical Projects Limited

Boughton Road, Rugby, Warwickshire, England.

Telephone Rugby (0788) 2144 Ext 306 Telex 311335

GEC Industrial Controls Ltd.,

Kidsgrove, Stoke-on-Trent, Staffordshire ST7 1TW, England.

Telephone Kidsgrove, (078 16) 3511 Telex 36293

Holding Company—The General Electric Company Limited

T206 Issue 3 08.81

© 1981 The General Electric Company Limited of England

Printed in England

