

DESCRIPTION

The d.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 d.c. output block is one of the GEM 80 range of 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

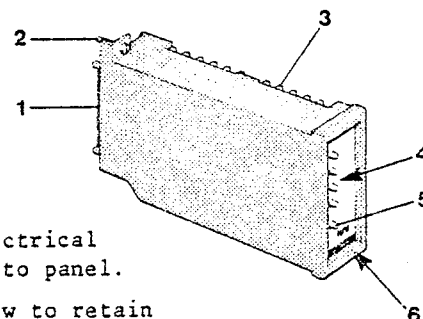
- Suitable for industrial applications
- Rugged plug-in moulded block
- Optical isolation
- Output state indication
- High noise immunity
- Series contacts require no extra suppression
- Mechanical coding of block type
- Suitable for a range of voltages for plant side power including 12V, 24V and 48V.
- Designed for inductive loads
- 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	:0.44kg
Front panel colour code	:Red
Power dissipation (load currents 8A total)	:20.5W typical
Power consumption	:6mA @ +15V (all outputs off) :30mA @ +15V (all outputs on)

8980

9-66V 2A D.C. Output Block



1. Plug for electrical connections 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	: up to 2A operating
Surge current at 40°C	: 5A for 10ms repeatable after 1 second : 3A for 40ms repeatable after 1 second
Plant side power supply voltage	: 9 to 66V d.c. operating
Voltage drop for ON state	: 1.7V at 2A, 1.6V at 1A typical : 3V at 2A, 2.4V at 1A maximum
Leakage current for OFF state	: 1mA 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	: 2kV pk transient
Differential no damage voltage	: 66V continuous
Response time ON	: 0.5ms maximum
Response time OFF	: 0.5ms 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 9-66V 2A d.c. output block are factory preset with slots in position U3 and L1.

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.

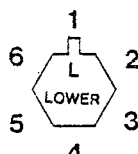
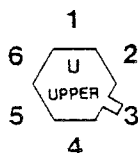
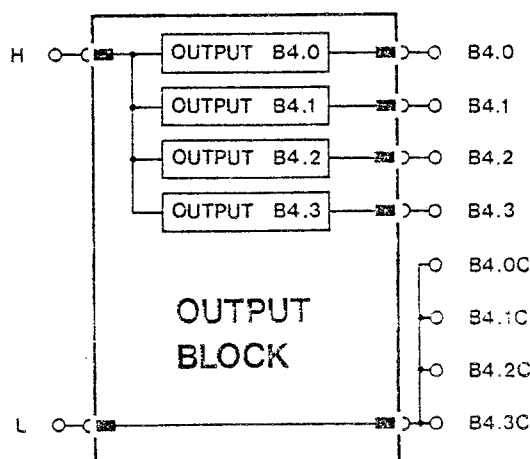
3. DATA LATCHING

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 the 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.

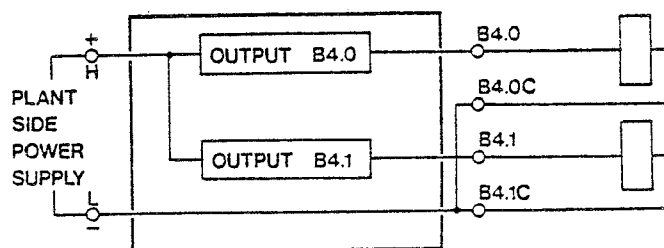
The output point designations and terminal numbers are determined by the positions of the block on the panel. The example below illustrates the connections to the first block on a typical panel referenced B4.



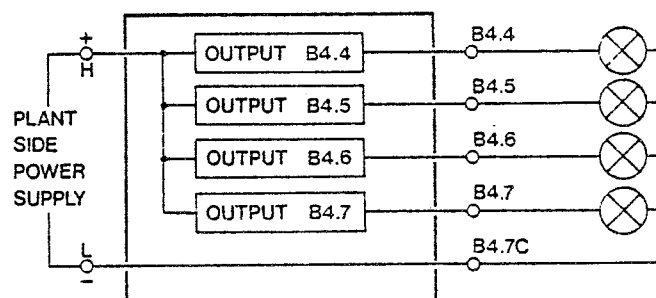
PANEL KEY POSITIONS

5. TYPICAL CIRCUITS

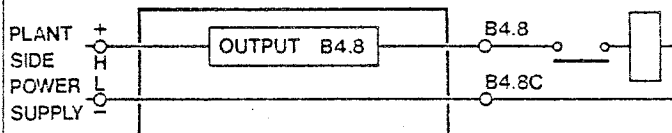
5.1 Individual contactors and solenoids



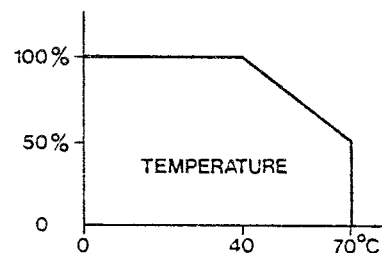
5.2 Output group with common wire



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

9-66V 2A d.c. output block
Spare Fuse

8980
82022/107

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.

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