



DESCRIPTION

The 8925 serial link termination unit plugs onto the standard serial link ribbon cable from any GEM 80 controller, and enables a single pair plant cable to be used for bidirectional communication. It is suitable for both point to point and multidrop 20mA serial links.

The unit contains active electronic components which prevent a port which is transmitting data from simultaneously receiving the same data.

One unit is required at the control port, and one at each tributary port in a serial link.

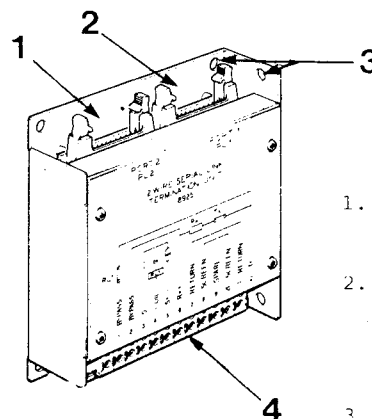
FEATURES

- * Reduces cabling costs.
- * Compatible with all standard GEM 80 controllers.

SPECIFICATION

Connection to host controller	: 20 way ribbon cable, plugs into 1 of 2 connectors to choose which port of controller is used.
Connection to serial link cables	: Screw clamp terminals. : Up to 2.5sq.mm cable.
Speed	: 110 to 9600 bit/s
Temperature	: 0 to 60°C operating. : -20 to 70°C storage.
Humidity	: 10 to 90% non-condensing.
Weight	: 0.4kg.
Dimensions	: 146 x 119 x 38mm overall (H x W x D)
Mounting	: Quarter rack width on two mounting channels at 222mm centres. : Edge mounting at 32mm min centres. User must ensure adequate access to plant terminals. : Any orientation to suit cabling convenience.

8925 2 Wire Serial Link Termination Unit



1. Ribbon cable connector using GEM 80 port 2.
2. Alternative ribbon cable connector to select GEM 80 port 1.
3. Mounting holes
4. Row of plant terminals.

Power consumption	: 20mA @ +15V for internal circuits.
	: Additional 20mA @ +15V if bypass relay used.
	: Alternatively 20mA @ +15V if current source used for powering link, plus 20mA @ -15V if controller has -15V supply.

APPLICATION NOTES

1. Connection to host controller

The serial link ribbon cable from the host controller is plugged into one or other of the two connectors on the termination unit, depending on which of the two ports of the GEM 80 controller is to be connected to the serial link. Under no circumstances should a connection be made to both the ribbon cable connectors on the termination unit.

The ribbon cable may continue onto another termination unit for the second port of the controller. The second unit may be another 8925 2 wire termination unit, an 8927 fibre-optic transceiver, or an 8038 twin port termination panel. When an 8038 is used in conjunction with an 8925 it is important that the terminals on the twin port panel which are associated with the 2 wire port be left open circuit, and the plug-in bypass relay must be absent.

2. Mounting

A pair of 2 wire serial link termination units occupies exactly the same space as an 8038 twin port termination panel.

The box enclosure of the 2 wire units offers the option of edge mounting where space is at a premium. The units can be stacked next to each other, provided that the user ensures there is adequate access to the cable terminals.

3. Printer ports

The 8925 2 wire serial link termination unit may be used with a GEM 80 printer port, provided that the user does not wish to use the single character input option on the printer port. If the single character input option is to be used then the 8038 termination panel is recommended.

4. 20mA current sources

The standard circuits for a 20mA GEM 80 serial port include two 20mA current sources. One of these is utilised to power the active electronics in the termination unit. The other is brought out to the plant terminals, labelled "S+" and "S-".

By convention the current source for a GEM 80 serial link is provided at the control port of the link. The current sources at each of the tributaries are not needed for the link itself, but are available for driving a bypass relay if required.

5. Bypass relay

A bypass relay is provided within the unit for applications requiring the continuity of a multidrop serial link to be maintained when a particular tributary has power switched off.

Terminals are provided to allow the bypass relay to be connected into circuit when it is required.

A pair of terminals labelled "bypass" have to be linked to connect the relay contact across the transmit/receive circuits, and the 20mA current source labelled "S+" has to be connected to the relay coil (labelled "coil"). When power is available, the relay is energised and its contact opens. When power is off, the relay contact places a short circuit across the transmit/receive circuits.

6. Typical circuits

The front of the box is marked with a legend which makes the function of the terminals self evident (see Fig.1).

Fig.2 illustrates typical circuits for a point to point link, and Fig.3 those for a multidrop link.

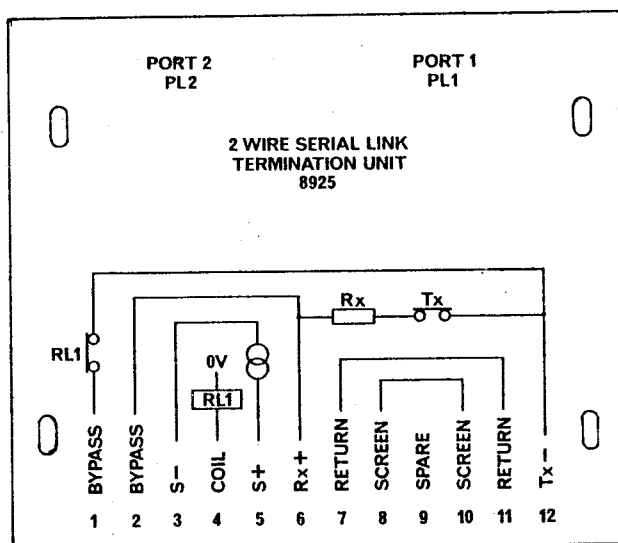


Fig.1 Legend on front of box

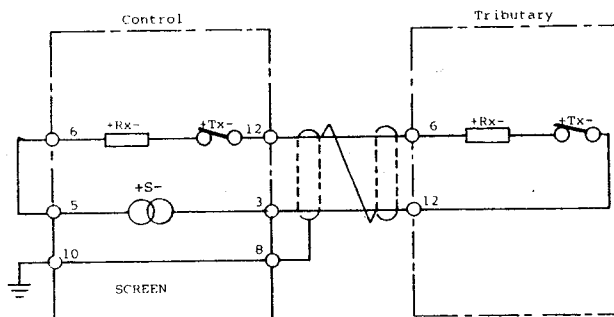


Fig.2 Typical point to point link

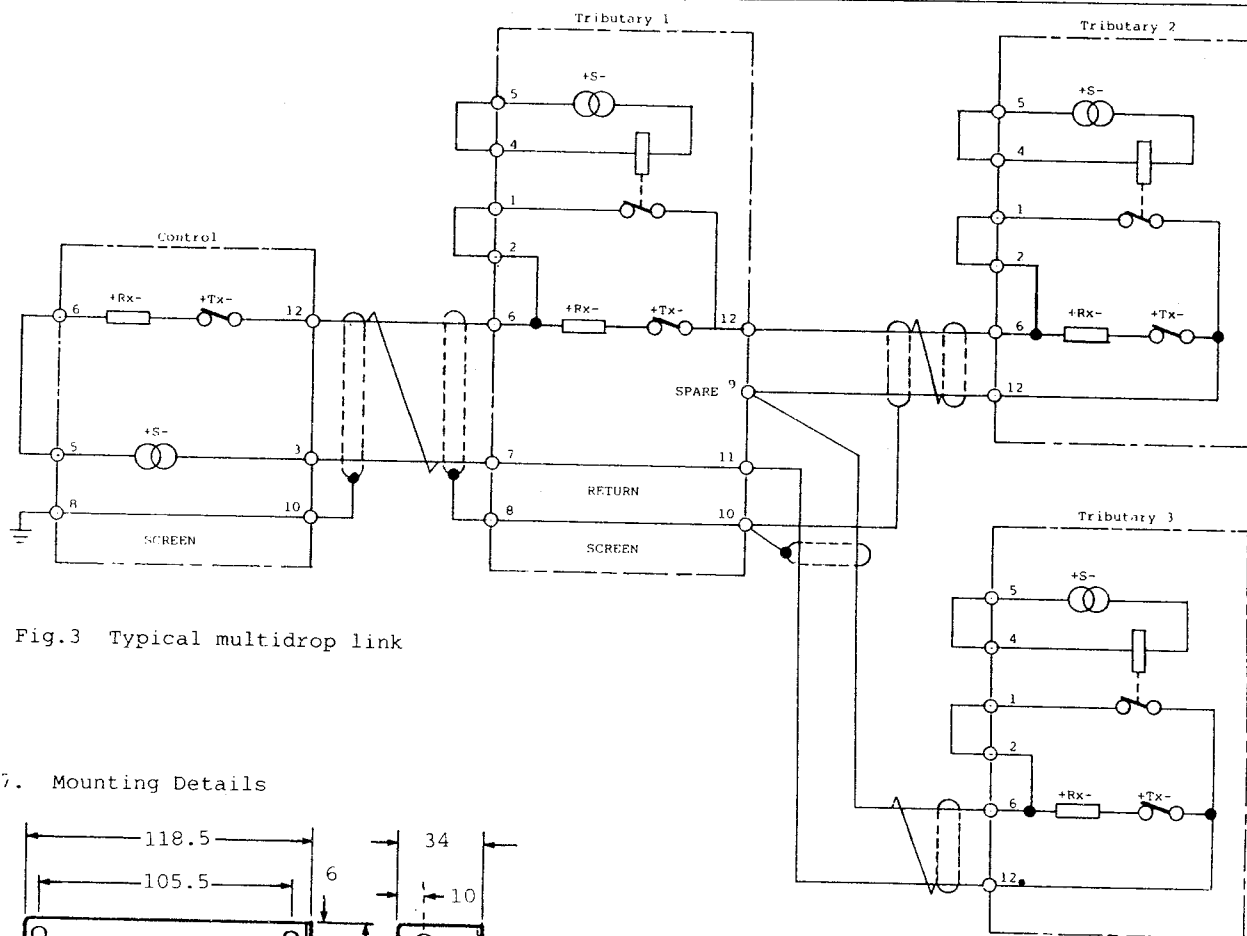


Fig.3 Typical multidrop link

7. Mounting Details

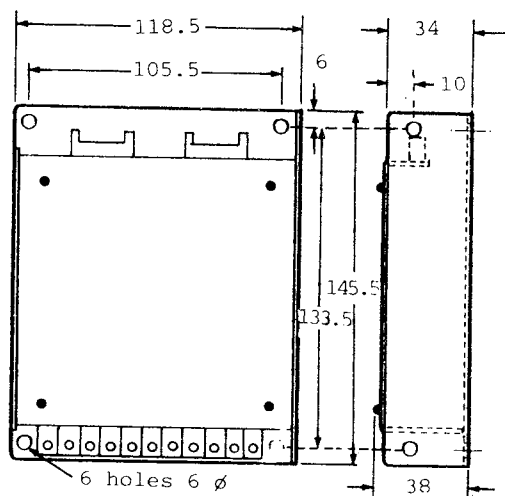


Fig.4 Mounting dimensions

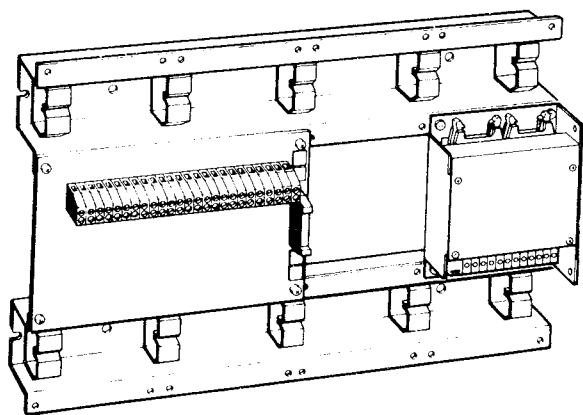


Fig.5 Typical use of mounting channel

ORDERING CODES

1. Equipment

2 wire serial link termination unit 8925-0000

2. Spares

Available as complete unit only.
There are no user replaceable parts.

3. Optional extras

Mounting channel (up to 4 units may be mounted between a pair of channels) 8959-0000

Ribbon cable to host controller:-

Spectra type 455.240.20
or equivalent.

Ribbon cable connectors (1 required at GEM 80 controller plus one for each unit connected to ribbon):-

End socket Yamaichi FAS-20-03BA

Intermediate socket Yamaichi FAS-20-04BA

Polarising key (position 2)

Yamaichi UFS polarising key

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