

Installation Safety Requirements

The unit is designed to operate in industrial temperature and process control applications. When used in the intended applications the unit will meet the requirements of the European Directives on Safety and EMC. Safety and EMC requirements may be impaired when installed in other applications, or if you fail to observe the installation instructions of this document, or the handbook.

Various symbols used on the instrument are described below:



Caution (refer to the accompanying documents)

INSTALLATION CATEGORY AND POLLUTION DEGREE
This product has been designed to conform to BS EN61010 installation category II and pollution degree 2. These are defined as follows:
■ **Installation category II.** The rated impulse voltage for equipment on nominal 230V ac mains is 2500V.
■ **Pollution degree 2.** Normally, only non-conductive pollution occurs. However, occasionally a temporary conductivity caused by condensation shall be expected.

Enclosure of live parts
To prevent hands or metal tools touching parts that may be electrically live, the unit must be installed in an enclosure.

Wiring

It is important to connect the unit in accordance with the wiring data given in this instruction sheet. Take particular care not to connect AC supplies to the low voltage sensor input or other low level inputs and outputs. Only use copper conductors for connections (except the thermocouple inputs) and the wiring of installations comply with all local wiring regulations. For example in the UK use the latest version of the IEE wiring regulations (BS7671). In the USA use NEC Class I wiring methods.

Power Isolation

The installation must include a power isolating switch or circuit breaker. This device should be in close proximity (1 meter) to the unit, within easy reach of the operator and marked as the disconnecting device for the instrument.

Earth Leakage Current

Due to RFI Filtering there may be an earth leakage current of up to 3.5mA. This may affect the design of an installation of multiple units protected by Residual Current Device (RCD) or Ground Fault Detector, (GFD) type circuit breakers.

Overcurrent Protection

It is recommended that the DC power supply to the system is fused appropriately to protect the cabling to the unit.

Voltage Rating

The maximum continuous voltage applied must not exceed 264Vac:

■ any connection to ground

The unit must not be wired to a three-phase supply with an unearthed star connection. Under fault conditions such a supply could rise above 264Vac with respect to ground and the unit would not be safe.

Conductive Pollution

Electrically conductive pollution must be excluded from the enclosure in which the unit is mounted. To secure a suitable atmosphere in conditions of conductive pollution, fit an air filter to the air intake of the enclosure. Where condensation is likely, include a thermostatically controlled heater in the enclosure.

INSTALLATION REQUIREMENTS FOR EMC

To ensure compliance with the European EMC directive certain installation precautions are necessary: For general guidance refer to *EMC Installation Guide*, Part no. HA025464.

Routing of Wiring

To minimise the pick-up of electrical noise, ALIN and ELIN communication cables should be routed away from high-current power cables. Where it is impractical to do this, use shielded cables with the shield grounded at both ends. In general keep cable lengths to a minimum.

Restriction of Hazardous Substances

部件名称 Part Name	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
	X	0	0	0	0	0
有毒有害物质 • 或元素 / Toxic and hazardous substances and elements						
O: 表示该有毒有害物质在该部件所有均质材料中的含量均在5%/T 11363-2006 规定的限量要求以下。 For this part is below the limit requirement in 5%/T 11363-2006 X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出5%/T 11363-2006 规定的限量要求。 (企业可在此处根据实际情况下表中打“X”的技术原因进行进一步说明) X: indicates that this is toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in 5%/T 11363-2006 (Enterprises may further provide in this box technical explanation for marking "X" based on their actual conditions.)						



This unit complies with the 40 Year Environment Friendly Usage Period.

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T225X ELIN/ALIN BRIDGE UNIT

INSTALLATION AND WIRING INSTRUCTIONS

What is the T225X?

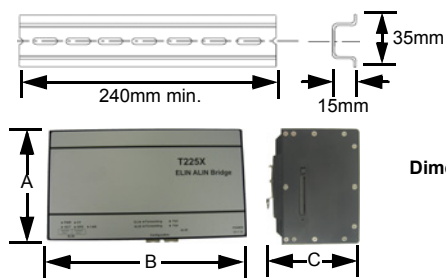
The T225X ELIN/ALIN Bridge unit provides network connectivity between LIN nodes an ALIN logical network and an ELIN logical network.



The unit operates transparently by passing database and filing data to and from the LIN nodes in the networks on either side of this unit. Redundant operation can be configured by installing and wiring two units in parallel. This unit can also be wired in series with a T221 Bridge unit to support OLIN communications.

The Unit

The unit designed to be directly mounted on to a 35mm DIN rail. The rear of the unit is equipped with snap-on mechanism for ease of installation.



The DIN rail should be fixed horizontally to a vertical plane with a minimum thickness of 2mm for stability.

Dimension	mm
A	130
B	231
C	100

The unit is intended for mounting within an enclosure and for indoor use only.

To mount the Unit

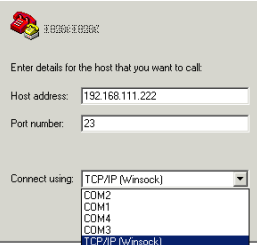
- Mount the DIN rail horizontally, using suitable bolts, and ensure that the DIN rail makes good electrical contact with the metal base of the enclosure.
- On the back of the unit fit the top edges of the DIN rail clip onto the top edge of the DIN rail, and push until the unit is securely clicked into place.

Simply ease the lower half of the unit away from the DIN rail until it is released indicated by a 'click', and lift away from DIN rail.

To Configure the Address

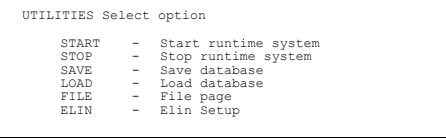
All configuration details are explained in the instrument handbook, see [Documentation](#) below.

- Connect the computer to this unit via the Configuration port.
- Launch a serial 'Telnet' session using the Windows™ Hyperterminal application. Enter the IP address for this unit at 'Host Address', and set 'Connect using' to TCP/IP (Winsock). The 'Port' should already be set to 23.

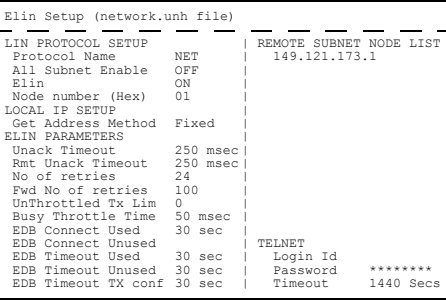


The 'Main menu' screen appears.

- Use the keyboard cursor arrows to select Utilities, then the ELIN option. This will display the ELIN Setup page used to configure the ELIN logical network details.



- Edit the LIN Protocol Name to define the ELIN logical network that this unit is connected to. If necessary, edit the Node number, see [LIN Node Numbering](#), the IP address and Subnet parameters.



For further details refer to the [instrument handbook](#).

- Save the database.

No further configuration is required, but LINtools can be used to monitor the unit.

Documentation

An electronic version of the instrument handbook (HA029931) and this sheet (HA029926) are stored on the Compact Flash card. Use Network Explorer or a standard Compact Flash card reader to access these documents.

LIN Node Numbering

A LIN message uses the concept of segment numbers for routing messages. If the LIN Node number is, for example 43 hex, the 4 denotes the segment number and is used for routing across this unit, i.e. 40, 41, ..., 4E, 4F all live on segment 4, see [instrument handbook](#) for more details.

To configure the LIN node number follow these simple rules,

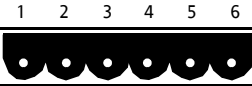
- this unit is considered an ALIN node, i.e. it behaves as an ELIN node on the logical ALIN network to which it is connected
- segment numbers on one logical network must not be duplicated on any other logical network. For example, ELIN nodes can use numbers 7x, ALIN1 nodes can use numbers 4x and 5x, ALIN2 nodes can use numbers 6x, and OLIN nodes can use numbers 1x.

Relays

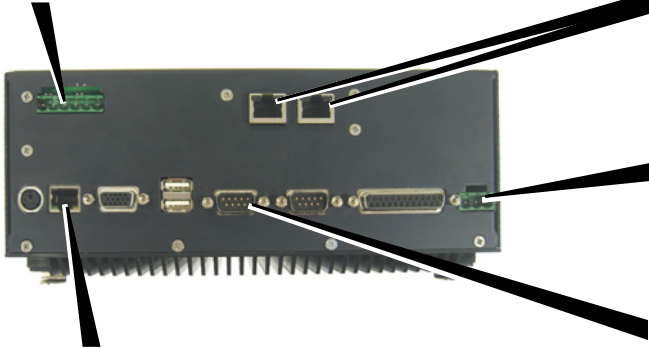
The relays are 30 V max., 2A max Resistive load, 1A max Inductive load..

Pin no.	Signal	Function
6	N/C	Forwarding messages
5	N/O	
4	Common	Running - Relay closed when unit Watchdogs.
3	N/C	
2	N/O	
1	Common	

Screw terminals can accept wire sizes 0.2 - 2.5mm (24 - 12 awg)



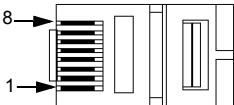
Compact Flash card



ELIN

The unit contains one ELIN RJ45 connector. It is used to connect this unit to an ELIN logical network. It also provides FTP (File Transfer Protocol) and Telnet support. The connector LEDs are used to indicate speed, i.e. Yellow LED On - 100mbps, and Off - 10 mbs, and activity, Green LED On - linked, Blink - activity.

Pin no.	Signal
8	N/A
7	N/A
6	RX-
5	N/A
4	N/A
3	RX+
2	TX-
1	TX+



ALIN

The unit contains two parallel ALIN RJ45 connectors. One connector is used to connect this unit from a node on the ALIN physical network. The other connector is used to connect to another node on the ALIN physical network or for a line terminator.

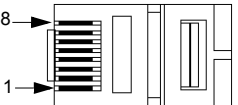
Nodes communicating via the ALIN physical network are connected using a single non-branching network.

RJ45 Line Terminator

ALIN physical networks must be correctly terminated at the end of the communication line.

Contact your supplier for correct terminators.

Pin	Signal
8	Not used
7	Not used
6	Not used
5	ALIN B
4	ALIN A
3	Not used
2	Not used
1	Not used
Plug shroud to Cable screen	

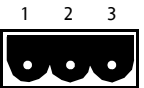


Power Supply

Power supply voltage: 8 - 30 Vdc

Power consumption: 12W maximum

Pin no.	Signal
3	Voltage supply -
2	Chassis Gnd
1	Voltage supply +



Screw terminals can accept wire sizes 0.2 - 2.5mm (24 - 12 awg)

Configuration Port

This 9-way 'D'-type connector provides a serial connection to a computer. This is be used to connect a computer via a serial 'Telnet' session to this unit, for editing the IP address and Node number of the connected unit, see [To Configure The Address](#).

Pin no.	Signal
9	N/A
8	N/A
7	N/A
6	N/A
5	Signal cond.
4	N/A
3	TX
2	RX
1	N/A

