

**Products Covered**

262-DD 262-DG  
(\* = varies)

## Digital Indicators - LED Digital Panel Meters, 262 Series


**Caution: Risk of Danger**

These instructions contain important safety information: Read before starting installation or servicing of the equipment


**Caution: Risk of Electric Shock**
**Introduction**

262 series digital indicators give a 3 ½ or 4 digit indication of input value. A wide range of inputs can be catered for and several special display options are available.

**Ratings**

Side labels show product function, and electrical ratings for measurement inputs and auxiliary supplies.

Product side labels show full connection information and terminal numbers. Connection information is also shown overleaf.

Measurement input circuits are separated from auxiliary supply circuits by at least basic insulation. The insulation for auxiliary circuits must be rated for the highest voltage connected to the instrument and suitable for single fault condition.

Measurement input circuits are not isolated from ancillary connections which influence display function (display brightness, decimal point position, display hold etc). The insulation for display ancillary circuits must be rated for the highest voltage connected to the instrument and suitable for double fault condition.

Auxiliary supply circuits and display ancillary circuits should not be accessible in normal use. The choice of connected equipment or combination of equipment should not diminish the level of user protection specified.

These units are designed for operation between 0 and 60 deg C at less than 80% relative humidity for temperatures up to 31 deg C, decreasing linearly to 50% relative humidity at 40 deg C, for indoor use at an altitude of less than 2000m.

**Installation**

These indicators should be installed in compliance with electrical codes for the territory of final use. For example for USA, in line with National Electrical Code and for Canada in line with Canadian Electrical Code. They should be installed in a dry position, not in direct sunlight and where the ambient temperature is reasonably stable and will not be outside the range noted above. Terminals should not be user accessible after installation. 262 digital indicators are intended for panel mounting in a standard DIN 45mm by 92mm panel cut out. These units may be mounted adjacent to other panel mount products, however at least 35mm (1.5 inches) of free air space should be allowed above and below the transducer.

262 digital indicators are fixed to the panel up to a maximum thickness of 5 mm by 2 opposed corner clamps and thumb screws. It may be convenient to use a 7mm screwdriver style nut driver to engage the thumb screws, particularly when starting the thread, but great care must be taken not to over tighten. It is very easy to cause damage with excessive torque when using a nut driver, so final tightening should be performed with finger pressure only. Consideration should be given to the space required above and below the instrument to allow for associated cables.. These units do not require a protective earth, but where fitted, current transformer (CT) secondaries must be connected to protective earth in accordance with local regulations.

**Connections and Fusing**

Connection diagrams should be carefully followed to ensure correct polarity where applicable. External voltage transformers (PTs) and CTs may be used to extend the range, provided that indicator ratings are not exceeded at the point of connection to indicator.

Where connections are provided for decimal point selection, connect "decimal point common" and the appropriate decimal point selection terminal with a shorting wire link. Where Blanking or Hold connections are provided, the display may be blanked or held by an external

switched connection between the "blanking/hold common" and the appropriate terminal.

Some products have multiple range inputs – only one input may be used at a time and care must be taken at installation to ensure that inputs are not subject to voltages which exceed the rating for the connected input. As with most products, significantly exceeding input ratings may result in severe damage to the instrument or give rise to hazards.

These products do not have internal fuses therefore external fuses **must** be used for safety protection under fault conditions.

Voltage input lines must be fused with a quick blow fuse 1A maximum. Auxiliary supply lines must be fused with a slow blow fuse rated 1A maximum. Do not fuse CT connections. DC current inputs should be fused according to the rated current of the indicator. Choose fuses of a type and with a breaking capacity appropriate to the supply and in accordance with regulations.

Connection wires should be sized to comply with applicable regulations and codes of practice, and be rated for minimum 75 deg C. Terminals are suitable for use with one or two copper wire conductors per terminal, AWG12 (3 mm<sup>2</sup>) or less. Wiring is to comply with class 1 requirements in North America.

Tighten terminal screws to 1.35Nm (1 ft/Lb) only. Ensure all connection wires are rated and approved to the highest voltage connected to the transducer.

Note that minimum wire current ratings for CT circuits ensure that the wire is capable of carrying the current safely, however it may be desirable to use heavier gauge wiring, particularly for long cable runs to ensure that the CT class accuracy VA rating is not exceeded and it's accuracy impaired.

The equipment into which these indicators are installed must have a readily accessible, clearly marked, adjacent switch or circuit breaker which will isolate the supply voltage and permit safe access for subsequent maintenance.

These products offer electrical isolation between measurement inputs and auxiliary supply inputs in accordance with IEC1010-1 (BSEN 61010-1) Permanently connected use, Normal Condition Measurement category III, pollution degree 2 (e.g. non ventilated panels or ventilated panels with filters, without condensation occurring), Basic Insulation, for rated voltage.

**Adjustment**

Standard 262-DD products are fitted with a zero adjustment point under a bung on the side of the housing. This adjustment point should be considered as hazardous and may be at the same potential as the measurement input. If necessary to adjust it when the input is live, take appropriate precautions including the use of an insulated adjuster suitable for the applied voltage. Where front zero and span adjustments are fitted as an option, an insulated adjuster is not mandatory, but is recommended.

**Maintenance**

No routine maintenance is required, beyond removing any accumulations of dust or other foreign matter and ensuring that connection screws remain tight. If necessary wipe the front window with a dry soft cloth. If necessary the cloth may be dampened with isopropyl alcohol, provided that care is taken to ensure that no liquid enters the indicator.

**Warning**

- During normal operation, voltages hazardous to life may be present at some of the terminals of this unit. Installation and maintenance should be performed only by qualified, properly trained personnel' abiding by local regulations. Ensure all supplies are isolated before attempting connection or maintenance.
- It is recommended adjustments be made with the supplies isolated, but if this is not possible, then extreme caution should be exercised.
- This unit is not intended to function as part of a system providing the sole means of fault protection - good engineering practice dictates that any critical function be protected by at least two independent and diverse means.
- Never open circuit the secondary winding of an energised current transformer.
- If this equipment is used in a manner not specified by the manufacturer, protection may be impaired.

**Commissioning**

The units are calibrated at the factory for full accuracy. No further adjustments are required. Zero and span adjustment where provided are under the bungs on the side or front panel. Adjusting these will degrade the accuracy of this indicator, but may be used to

compensate for system errors etc. Typically adjustment of 10% of span and 2% of zero is available, but this varies by model.

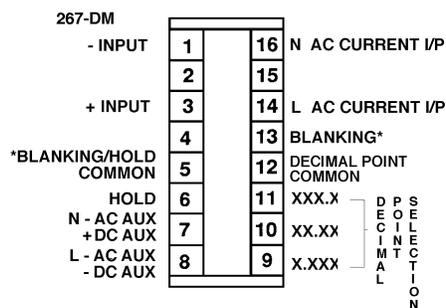
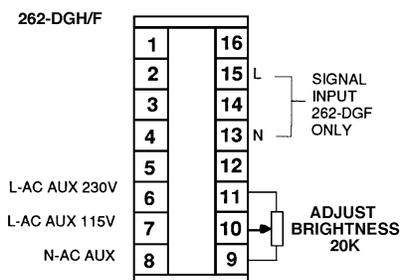
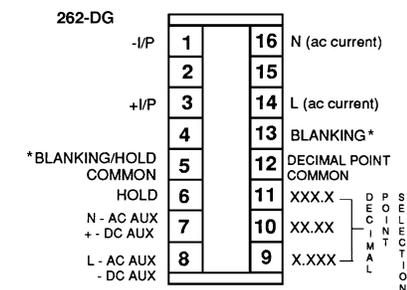
### Electromagnetic Compatibility

This unit has been designed to provide protection against EM (electromagnetic) interference in line with requirements of EU, FCC and other regulations. Precautions necessary to provide proper operation of this and adjacent equipment will be installation dependent and so the following can only be general guidance:-

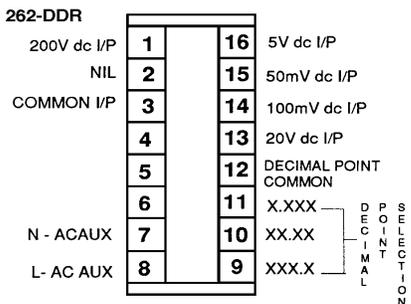
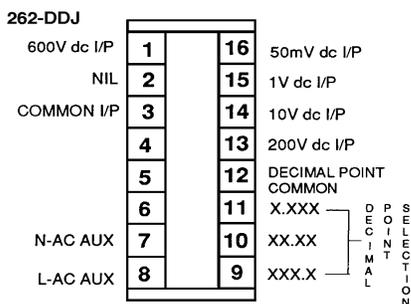
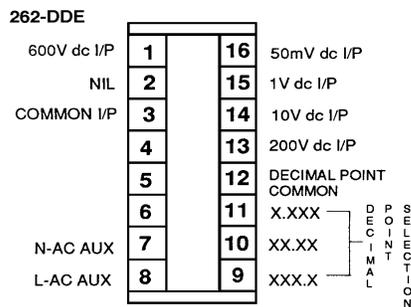
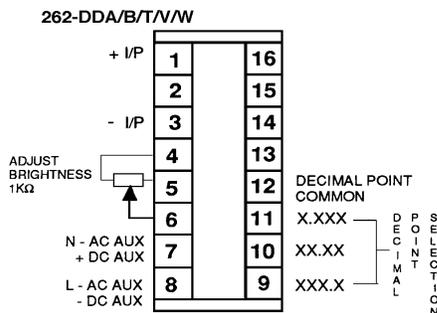
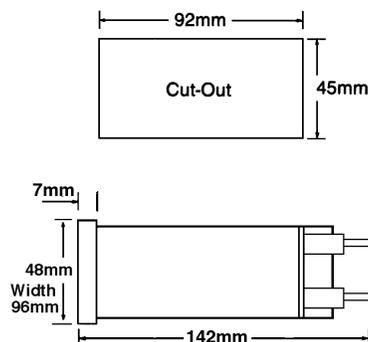
- Avoid routing wiring to this unit alongside cables and products that are, or could be, a source of interference.
- The auxiliary supply to the unit should not be subject to excessive interference. In some cases, a supply line filter may be required.
- To protect the product against incorrect operation or permanent damage, surges and transients must be controlled. It is good EMC practice to suppress transients and surges at the source.
- Screened small signal leads are recommended and may be required. Connecting leads may require the fitting of RF suppression components, such as ferrite absorbers or line filters
- It is good practice to install sensitive electronic instruments that are performing critical functions in EMC enclosures that protect against electrical interference causing a disturbance in function.

For assistance on protection requirements please contact your local sales office.

### Connection Diagrams



### Panel cut out and dimensions



All of the above information, including drawings, illustrations and graphic designs, reflects our present understanding and is to the best of our knowledge and belief correct and reliable. Users, however, should independently evaluate the suitability of each product for the desired application. Under no circumstances does this constitute an assurance of any particular quality or performance. Such an assurance is only provided in the context of our product specifications or explicit contractual arrangements. Our liability for these products is set forth in our standard terms and conditions of sale. TE logo and Tyco Electronics are trademarks. CROMPTON is a trademark of Crompton Parkinson Ltd. and is used by Tyco Electronics under licence.