

# MTL GECMA WS display modules

## Modular high-resolution display panels for MTL GECMA work stations



## **1 FOREWORD**

Please read the entire operating instructions before starting the assembly, connection, installation and commissioning.

The MTL GECMA WS display modules and any associated safe area equipment must be installed or uninstalled by qualified personnel only. This individual must be qualified to perform the installation of electrical equipment for use in potentially explosive atmospheres, and in accordance to the relevant rules and regulations pursuant to the classification of zones under IEC 60079-14.

The information in the IECEx or EC-type examination certificate should be fully adhered to.

If you have any questions or require technical support, please contact:

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### **Technical developments**

The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.

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## 2 GENERAL REFERENCE

### 2.1 General safety information

The following methods are used in this manual to alert the user to important information:-

#### **NOTE:**

These are used to give general information to ensure correct operation.

#### **IMPORTANT:**

These are used to indicate information that is important to the user.

#### **Safety instructions for installation and operating personnel**

The operating instructions provided here contain essential safety instructions for installation personnel and those engaged in the operation, maintenance and servicing of the equipment.



#### **WARNING!**

Failure to comply with these instructions can endanger the lives or health of personnel and risk damage to the plant and the environment.



#### **WARNING!**

Failure to comply with these instructions can endanger the lives or health of personnel, risking injury from electric shock.



#### **WARNING!**

Failure to comply with these instructions can endanger the lives or health of personnel and risk damage to the plant and the environment.

#### **Disclaimer:**

The operating instructions in relation to warning and caution set out in these operating instructions are in lieu of all other representations, conditions, occurrences, warranties, express or implied, statutory or otherwise regarding events that might require caution or warning or otherwise, all of which are hereby excluded to the extent permitted by applicable law.

## 2.2 Provisions for general operational safety

## 2.3 Application

The MTL GECMA 19, 22 and 24 WS display modules are individually certified and designed for industrial use in the potentially explosive atmospheres of Zone 1 and Zone 2.

The corresponding certificates are:

19" Sira 14 ATEX5063X	IECEX SIR 14.0032X
22" Sira 14 ATEX5063X	IECEX SIR 14.0032X
24" Sira 14 ATEX5063X	IECEX SIR 14.0032X

The products are marked:

19" Ex mb ib IIC T4 Gb Ta = -30°C to +60°C
22" Ex mb ib IIC T4 Gb Ta = -30°C to +60°C
24" Ex mb ib IIC T4 Gb Ta = -30°C to +60°C

## 2.4 Safety guidelines

These safety guidelines contain information and precautions that must be taken into account for safe operation in the conditions described.

The Safety Provisions chapter must be studied carefully and adhered to.

The Operating Instructions must be read before installing or using the terminal.

We do not accept liability for printing errors and mistakes in these operating instructions. Should you have any queries or questions please do not hesitate to contact us.

## 2.5 ATEX safety Instructions

The following information is in accordance with the Essential Health and Safety Requirements (Annex II) of the EU Directive 94/9/EC [the ATEX Directive - safety of apparatus] and is provided for those locations where the ATEX Directive is applicable.

### General

- a. This equipment must only be installed, operated and maintained by competent personnel. Such personnel shall have undergone training, which included instruction on the various types of protection and installation practices, the relevant rules and regulations, and on the general principles of area classification. Appropriate refresher training shall be given on a regular basis. [See clause 4.2 of EN 60079-17].
- b. This equipment has been designed to provide protection against all the relevant additional hazards referred to in Annex II of the directive, such as those in clause 1.2.7.
- c. This equipment has been designed to meet the requirements of EN 60079-0, EN 60079-11 and EN 60079-18.

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## **Installation**

- a. The installation must comply with the appropriate European, national and local regulations, which may include reference to the IEC code of practice IEC 60079-14. In addition, particular industries or end users may have specific requirements relating to the safety of their installations and these requirements should also be met. For the majority of installations the Directive 1999/92/EC [the ATEX Directive - safety of installations] is also applicable.
- b. Unless already protected by design, this equipment must be protected by a suitable enclosure against:
  - i. mechanical and thermal stresses in excess of those noted in the certification documentation and the product specification
  - ii. aggressive substances, excessive dust, moisture and other contaminants.
- c. The connections between the MTL GECMA WS display module, MTL GECMA WS power supply module (PSU) and the MTL GECMA COM module must be made according to the system diagram.

Read also the Special Conditions for Safe Use (below) for any additional or more specific information.

## **Special conditions of safe use for Zone 1 and 2 applications**

- a. The MTL GECMA WS Display Module shall only be powered from an MTL GECMA WS PSU Module, IECEx SIR 14.0030X.
- b. The Display Module shall be installed in such a way that damage to the cables is prevented, e.g. having a grill meeting the requirements of IP20 minimum.
- c. Its enclosure is manufactured from aluminium alloy. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation.
- d. The intrinsically safe circuit is not isolated from the enclosure; this shall be considered during installation.

## **Inspection and maintenance**

- a. Inspection and maintenance should be carried out in accordance with European, national and local regulations which may refer to the IEC standard IEC 60079-17. In addition specific industries or end users may have specific requirements which should also be met.
- b. Access to the internal circuitry must not be made during operation.

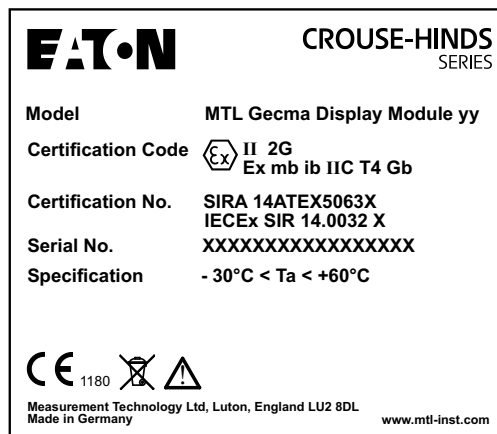
## **Repair**

- a) This product cannot be repaired by the user and must be replaced with an equivalent certified product.



## Marking

Each device is marked in compliance with the Directive and CE marked with the Notified Body Identification Number.

This information applies to the MTL GECMA WS display module manufactured during or after the year 2015.



## 2.6 Safety provisions

	<b>WARNING!</b> Use of an MTL GECMA WS display module assumes that the user has observed the standard safety provisions in order to prevent incorrect operation of the module.
	<b>WARNING!</b> The responsibility for planning, installation, commissioning, operation and maintenance, particularly with respect to applications in explosion hazard areas, lies with the plant operator.


- Use the module for its intended purpose only. Incorrect or impermissible use, or non-compliance with these operating instructions may invalidate any warranty.
- The MTL GECMA 19, 22 and 24 WS display modules may be used in Safe Area, Zone 1 and/or Zone 2 applications corresponding to the Ex marking.
- Modifications and changes to an MTL GECMA WS display module or its components are not permitted and may affect the safe operation of the module and invalidate the modules Ex protection.
- The device may only be operated in an undamaged condition.
- Damage can nullify the safe operation of the Ex protection.
- Avoid using aggressive acids or bases when cleaning.
- The MTL GECMA 19, 22 and 24 WS display modules must be set up and operated in accordance with the applicable assembly and installation regulations.
- The equipment must be operated in accordance with the electrical parameters and other information prescribed in the operating instructions and IECEx or EC type examination certificate.
- All earth connections must be made prior to connection to any power source.

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- The installation and commissioning may only be performed by professional personnel who are trained according to the regulations, standards and guidelines applicable here.
- Only devices which correspond to the electrical characteristics of the IECEx or EC type examination certificate or the operating instructions may be connected.
- The national safety and accident prevention regulations apply.
- Ensure that the MTL GECMA WS display module and any associated components have been installed correctly and that any wiring is undamaged before the display is operated.
- The recommended ambient operating temperature range is  $-10^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$ , however the ambient certified temperature range is  $-30^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ .
- The maximum permissible altitude for the operation of the system is 2000 metres.
- All other instructions, notes and regulations contained in these operating instructions must be complied with and observed.

**During operation:**

- Make these instructions available at all times to the operating personnel.
- Servicing, maintenance work or repairs not described in this manual must not be performed without prior agreement with the manufacturer.
- Avoid using aggressive acids or bases when cleaning.
- In the event of damage to the front glass screen, the display must be switched off immediately.

	<p style="text-align: center;"><b>WARNING!</b></p> <p>Operational safety cannot be guaranteed in the event of non-compliance or contravention of these safety provisions and will invalidate any warranty claim.</p> <p>Deviations require the written approval of GECMA Components electronic GmbH</p>
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## 2.7 Errors and overloading

	<p style="text-align: center;"><b>WARNING!</b></p> <p>As soon as the safety of a MTL GECMA WS display module has been compromised, it must be taken out of service immediately to avoid any unintended system restarts. We recommend that in this situation the display module should be removed and returned to the manufacturer for inspection.</p>
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The device safety could be compromised if, for example:

- damage to the frame and metalwork is visible,
- the device has been subjected to excessive loads,
- the device has been improperly stored,
- the device has been damaged in transit,
- the device certification is illegible,
- malfunctions occur,
- the permissible threshold values have been exceeded.



### 3 OVERVIEW



The MTL GECMA 19, 22 and 24 WS display modules are high-resolution graphical panels specifically designed for use in hazardous areas. They are designed to be accompanied by other MTL GECMA modules that will normally consist of, at least, a power supply and a communications (COMs) module – both of which must be designed for use in the hazardous area.



Other peripherals such as a keyboard and one, or more, pointing devices (e.g. mouse, trackball, touch pad, joystick) normally accompany a display in the hazardous area, but these may be omitted if a “touch-screen” option has been chosen.

Video data must be supplied locally from the COMs unit which in turn receives the digital video interface (DVI) signal from a PC in the safe area or local COMs unit dependent on which COMs version is being used.

A MTL GECMA WS display module MUST be powered from a MTL GECMA WS power supply (PSU) to maintain its certification status. Two PSU models are available, which enable the supply to come from either a 100-230V AC or an 18-36V DC source.

### 4 MTL GECMA WS DISPLAY MODULE OPTIONS

The display units are available in the following dimensions: 19, 22 and 24 inches.

	<p><b>WARNING!</b></p> <p>The connections between the MTL GECMA WS display module, MTL GECMA WS power supply module (PSU) and the associated MTL GECMA COM module must be made according to the system diagram, which can be found in relevant system manual i.e. INM MTL GECMA RT, INM MTL GECMA TC etc</p>
	<p><b>WARNING!</b></p> <p>Only systems with compatible intrinsically safe parameters, such as the MTL GECMA COM module, can be connected to the LVDS display with an optional USB touch screen.</p>

#### 4.1 Technical Data:

Designation	MTL GECMA 19	MTL GECMA 22	MTL GECMA 24
Screen Size	19"	21.5"	24"
Display Type	TFT with 16 million colours		
Resolution	1280 x 1024 (5 : 4) - lower resolutions are interpolated	1920 x 1080 (16 : 9) - lower resolutions are interpolated	1920 x 1200 (16 : 10) - lower resolutions are interpolated
Protection	IP20 IP66 from the front		
Front Panel	Anodised aluminium		
Dimensions mm (WxHxD)	610 x 628 x 130	710 x 600 x 130	760 x 648 x 130
Weight	12 kg	16 kg	20 kg
Power Supply	230VAC / 24 VDC via MTL GECMA WS PSU module		
Power Input	25W (nominal)	25W (nominal)	35W (nominal)
Weight	12 kg	16 kg	20 kg
Certified Ambient Temperature	-30°C ≤ Ta ≤ +60°C		
Operating Ambient Temperature	-10°C ≤ Ta ≤ +50°C		

## 5 INSTALLATION

### 5.1 General information

#### IMPORTANT:

Do not install the terminal where the display screen will be subjected to direct sunlight. Regular exposure to ultra-violet (UV) rays will reduce the lifetime of the TFT display panel. Speak to your MTL GECMA representative if you need further guidance on this matter.



#### WARNING!

The 'Safety guidelines and provisions' and 'Installation and Connection Instructions' must be studied and strictly adhered to in order to ensure safe and reliable operation.



#### WARNING!

The installation may only be carried out by trained specialists who have the appropriate training certification. These personnel must be able to demonstrate familiarity with the specific nature of potentially explosive atmospheres.



#### WARNING!

All earthing connections must be connected or wired prior to commissioning. The connection points are labelled with the symbol shown here on the right.



### 5.2 Mechanical installation

#### 5.2.1 Preparation

The MTL GECMA WS display modules are normally mounted in a specifically designed freestanding, stainless steel enclosure, together with, for example, a keyboard and one of a range of MTL GECMA pointing devices. Alternatively, a customer may choose to have them mounted in customised panels in the hazardous area to create a particular workstation configuration.

The MTL GECMA work station is provided with an appropriate housing according to the selected size of display module.

If the custom panel option is chosen then the panel must be cut and drilled appropriately to accept the panel and its associated mountings. See the diagrams in Appendix A showing the panel cut-out and mounting hole positions and dimensions.

### 5.2.2 Mounting

**NOTE:**

It is suggested that two persons are used to mount the display module. One at the front of the panel to hold it in position safely and one at the rear to fit any necessary mounting brackets and securing nuts.

**NOTE:**

Leave any protective film in place on the screen until all installation work is completed. This helps to avoid the chance of scratches or other damage to the display screen during the installation.

Fit the display module into the panel cut-out and align the mounting studs with the holes in the panel. **Ensure that no wires are trapped**, then press the module fully into position. Fit any backing brackets supplied then begin fitting the securing screws.

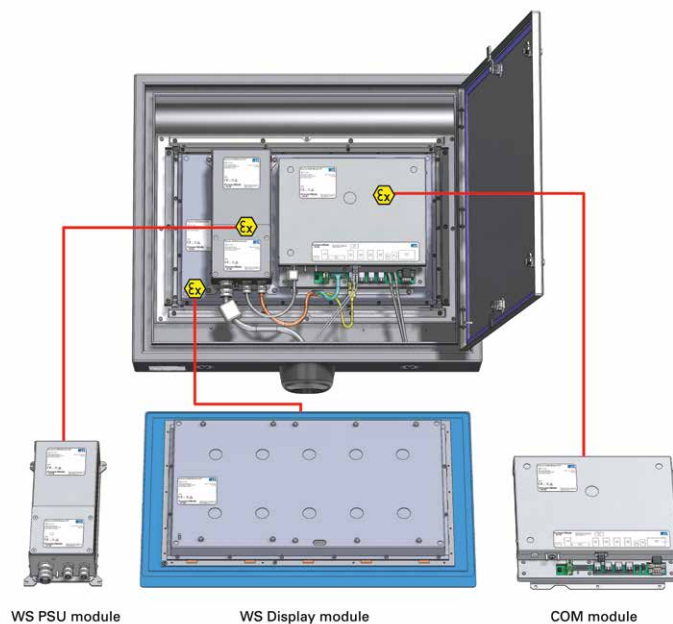
**NOTE:**

The mounting method is different for the MTL GECMA 22" WS display panel, as this unit uses additional brackets behind the mounting panel, which is then secured with nuts on the display module's studs.

**Use finger pressure to tighten the M5 hexagon socket screws on all four of the corners** before using any tools to tighten the screws. This ensures that the display module is properly seated on the panel and avoids the danger of distorting the bezel by initial over-tightening when incorrectly seated.

Finally, tighten all of the M5 hexagon socket screws to a torque of 1.0 Nm to ensure a proper seal around the display panel.

### 5.3 Electrical installation



Rear view of an enclosure showing a display module and the associated components mounted on it.

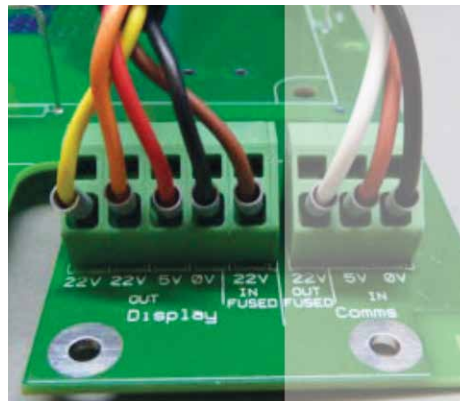
### 5.3.1 Electrical DC power

Electrical DC power must be supplied from the MTL GECMA WS AC or DC PSU module, both of which are Ex certified for use in Zone 1 hazardous areas.

The MTL GECMA WS PSU modules are designed to mount on the rear of the display module. Four mounting studs are provided on the rear of the display for this purpose. For details of how to install either of these modules see the MTL GECMA WS PSU module installation manual.

Connect the display's power cable to the MTL GECMA WS PSU as follows.

1. Feed the display power cable through the middle (M16) cable gland of the PSU.
2. Connect the five wires to the spring-clamp connectors of the power supply ensuring that the cable colours are in the same order as the ones shown in the diagram.



Colour code	Pin assignment	Function
Yellow	22V DC	Output
Orange	22V DC	Output
Red	5V	Output
Black	0V	Output
Brown	22V DC	Input Fused

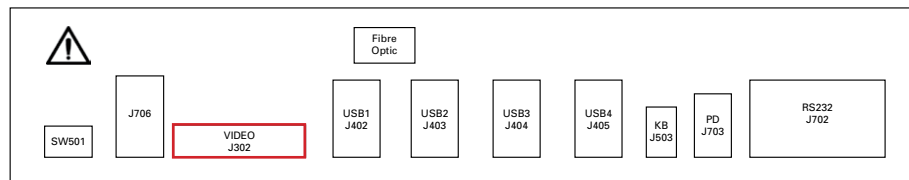
3. Tighten the cable gland nut to the recommended torque to ensure an adequate seal around the cable.

When all connections have been made on the PSU, replace the cover securely using the four screws provided and tighten them to a maximum torque setting of 2 Nm.

### 5.3.2 Video signal

The video signal is provided by the MTL GECMA COM module. This module is designed to mount on the rear of a MTL GECMA WS display and provides the local video signal processing and Ex interface for the signal cable going to the safe area. For details of how to install this module see the MTL GECMA COM module instruction manual.

The thicker multi-way cable and connector that is situated at the bottom edge of the potted display module carries the video signal. Connect this cable to the multi-way J302 video connector on the COM module as indicated in the diagram on the next page.



### 5.3.3 Touch-screen interface connection

If the touch-screen feature is being used, a connection must be made to the COM module. A cable with a USB 'A' connector on the end can be seen coming from the bottom part of the display. Insert this connector into one of the four USB sockets (USB1 – USB4) provided on the COM module.

A software driver must be installed to make use of the touch-screen feature. See Section 8 for details of how to install the driver and prepare the display for use with the touch interface.

### 5.3.4 Data connection

To commission the display a data connection from the PC in the safe area is required. For details of how to make the data connection see the MTL GECMA COM module instruction manual.

## 6 POWER UP

Before switching on the system, check again to make sure everything is mounted, connected and installed as prescribed so as to ensure safe operation of the terminal.

We recommend that all types of power management in the PC are deactivated.

The power is controlled by the local power switch (there is no power switch on the terminal)

### 6.1 Brightness regulation

As the video signal is digital almost all settings can be changed at the host PC. To adjust the display brightness follow the steps below:

1. Press CTRL+ALT+A+S+D simultaneously on the hazardous area keyboard
2. The three keyboard LEDs will begin to flash
3. Press up or down to adjust display brightness as required
4. Press CTRL+ALT+A+S+D to exit the brightness adjustment mode

If there is no keyboard installed the brightness has to be adjusted through the PC graphics adapter.

## 7 REPLACING AN MTL GECMA WS DISPLAY MODULE

In the event that a MTL GECMA WS display module has to be replaced, this section explains the steps necessary to remove an existing display and fit a replacement. For further details refer to the overall system instruction manual.

### 7.1 General information

#### IMPORTANT

Read and understand the WARNINGS given at the start of this manual.  
Maintenance procedures require the same skills and levels of care and attention.

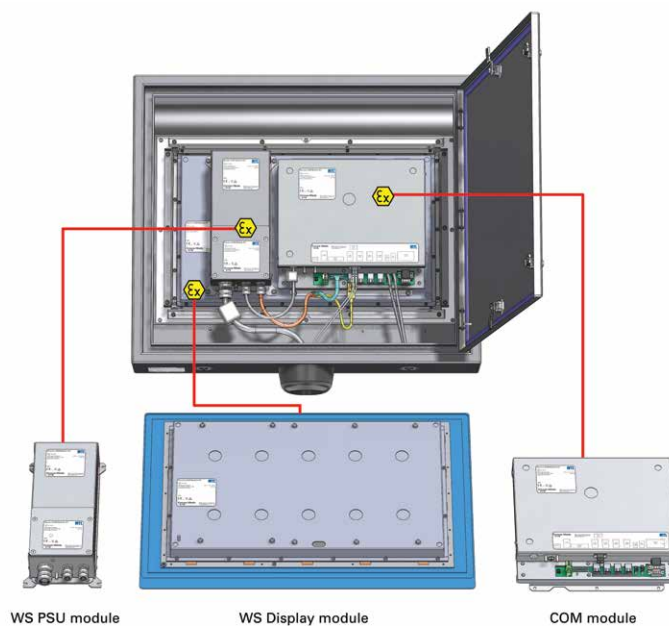
#### IMPORTANT

Removal of the display module from a fully equipped terminal requires the initial removal of the MTL GECMA WS PSU module and the MTL GECMA COM module both of which are mounted on the rear of the display module. The following sections explain the removal and refitting procedure for each module step by step.

### 7.2 Removing the MTL GECMA WS PSU module

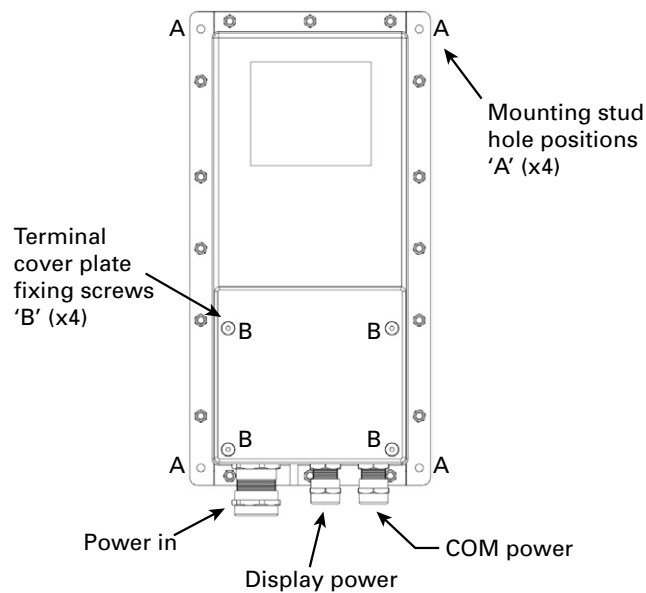
#### IMPORTANT

Ensure that the power to the terminal is switched off and secured against intentional or unintentional reconnection.

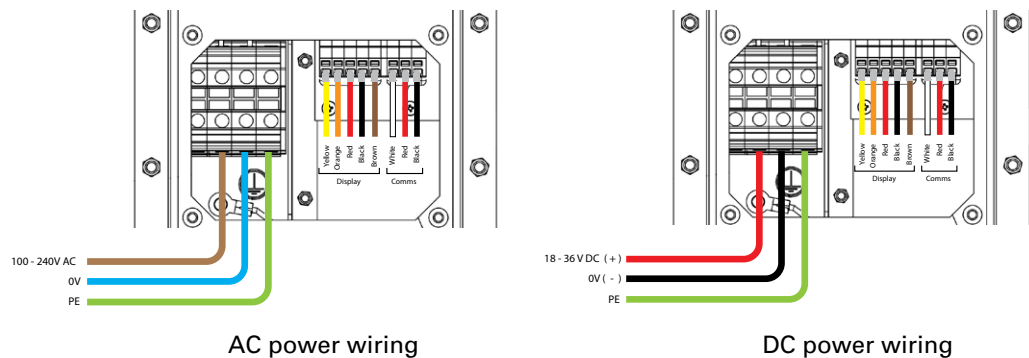


Rear view of an enclosure showing an MTL GECMA WS display and the associated components mounted on it.

1. The position of the PSU module is shown in the image above. Referring to the diagram below, loosen and remove the four screws ('B') shown that secure the terminal cover plate and remove it.



- Referring to the diagram below, use a 3mm flat-bladed screwdriver to loosen the screw terminals for the incoming power wiring terminals on the left of the terminal aperture and withdraw the wires from the terminals. Then loosen the nut on the protective earthing(P.E.)/grounding stud and remove the ring terminal.



- Next, identify the terminals on the right that accept the wiring for the display module and the COM module. Using the 3mm flat-bladed screwdriver insert the blade into the slot above the wire entry points for each terminal, in turn, to allow the wire to be withdrawn. Repeat this procedure until all eight wires have been disconnected.
- When all internal wiring has been disconnected, loosen the cable gland securing nut for each of the three cables entering the PSU – i.e. Power, Display and Comms - and withdraw each of the cables from the PSU housing.
- Finally, loosen and remove the four mounting nuts (positions 'A') securing the body of the PSU module to the display module and lift away the PSU module from the display.
- Temporarily replace the terminal cover plate on the PSU and attach it with the four screws ('B') removed previously and set the module aside, with its four fixing nuts and washers, in a safe place for re-installation later.

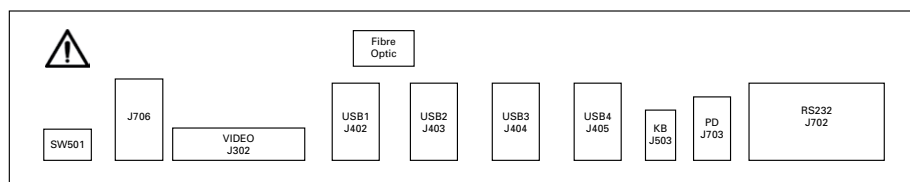


### 7.3 Removing the MTL GECMA COM module

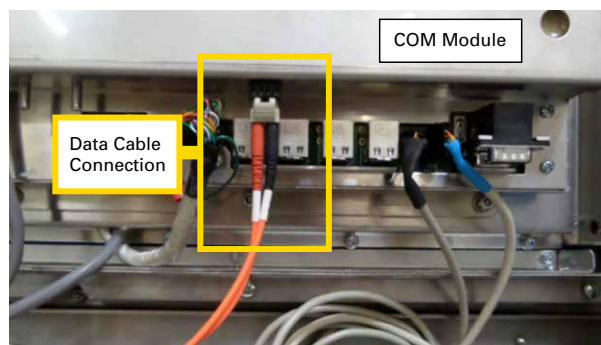
The picture below provides a view of the electrical and fibre-optic connectors for the RT COM module to be removed. Other COM modules may look slightly different. Refer to the appropriate COM module manual for more information.



The diagram below reproduces the label attached to the back of the module adjacent to the connectors can be used to identify and locate the individual connections provided.



<b>SW501</b>	reserved
<b>J706</b>	reserved
<b>J302</b>	video signal to the display
<b>USB1 to 4</b>	USB ports for other devices on the terminal
<b>Fibre Optic</b>	data cable connection (fibre optic cable) with latch
<b>KB</b>	keyboard connection
<b>PD</b>	connection for pointing device such as mouse/trackball
<b>RS232</b>	connection for devices with serial interface



1. Refer to the diagram showing the connectors and disconnect the LVDS (Video) signal cable that goes to the display and disconnect the associated earth cable from the earth stud alongside.
2. All connectors are on the right-hand side of the connector panel and each has a securing tab that must be pressed to allow the connector to be removed. Press each tab and remove the connectors in turn.
3. Remove the main COM Module earth cable from the COM Module earth stud. There should now be no further electrical connection into the COM module.
4. Finally, loosen and remove the six mounting nuts around the body of the COM module connecting it to the display module and lift away the COM module from the display.

## 7.4 Removing the MTL GECMA WS Display module

The display module is now clear of all other fittings and can be prepared for removal.

### IMPORTANT

If the display is still upright in the enclosure then an additional person should be positioned at the front of the enclosure to support the display during its removal.

1. Loosen and remove all of the securing nuts located around the outer edges of the display module, and lift away any reinforcing metal strips that may be located on the studs.
2. Gently ease the display (with any sealing gasket fitted) away from the face of the enclosure until the studs are clear of the enclosure, and place the display in a safe position.

## 7.5 Re-Installing an MTL GECMA WS Display module

Remove all packaging material from the replacement display and check the display for any damage, e.g. any warping or distortion of the edges of the display or any indications of rough handling.



### WARNING!

Do not attempt to install a display module that shows any signs of damage or mishandling as it could compromise the Ex certification of the unit.

### IMPORTANT

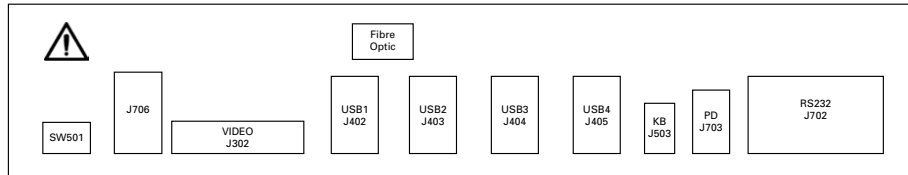
It is recommended that an additional person assists with the fitting of the display module to the enclosure as it is difficult to support the display and have full access to the fixings required at the rear.

1. Ensure that the face of the enclosure and the mating surface around the edge of the display module is free of any contamination or loose particles that could prevent the seating of the module to the enclosure face.
2. Refit any new or existing gaskets (new gaskets supplied with new display) over the studs before bringing the display module to the enclosure and inserting the studs around the edge of the display through the holes in the enclosure.
3. Fit any reinforcing metal strips, previously removed, over the fixing studs and refit the securing nuts. Initially tighten the nuts only to "finger" tightness until all of them have been fitted. View the display from the front to ensure that there is no distortion at the display edges and then tighten all the nuts along each edge in turn with a wrench to a recommended torque of 2Nm. On completion, check the front face once again to check for good seating of display and enclosure.

## 7.6 Re-installing the GECMA COM module

The replacement of the COM module is effectively a reversal of the removal process.

1. Ensure the rear of the display module is cleared of any small items or contaminants and the underside of the COM module is similarly clean before mounting the COM module onto the six mounting studs attached to the rear of the display module.
2. Hold the COM module in position while fitting the six retaining nuts onto the studs and tighten them to a recommended torque value of 2 Nm.

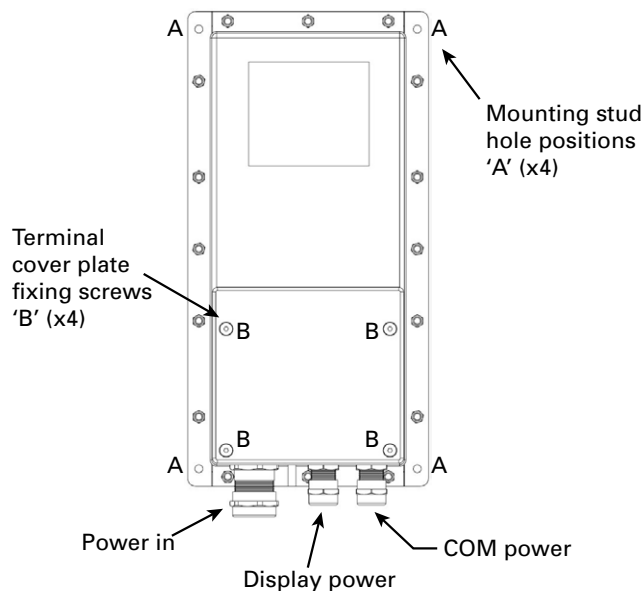


3. Re-attach the main COM Module earth cable to the COM Module earth stud and tighten the retaining nut to a recommended torque value of 2 Nm.
4. Re-connect the Keyboard into the 'KB' connector and similarly any Pointing Device to the 'PD' connector along with associated USB and RS232 connections.. Note that both of these have retaining clips which will click into place when the connector is fully seated.
5. Re-connect the LVDS (Video) Signal cable into the 'J302' socket and re-attach its earth cable to the LVDS Signal earth stud to ensure a good earth connection.

## 7.7 Re-installing the MTL GECMA WS PSU module

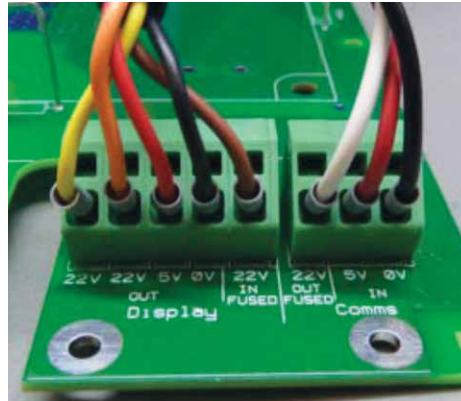
The replacement of the PSU module is effectively a reversal of the removal process.

1. Ensure the rear of the display module is cleared of any small items or contaminants and the underside of the PSU module is similarly clean before mounting the PSU module onto the four mounting studs attached to the rear of the display module.
2. Hold the PSU module in position while fitting the four retaining nuts onto the studs and tighten them to a recommended torque value of 2 Nm.



3. Loosen and remove the four screws ('B') shown that secure the terminal cover plate of the PSU module and remove it.

4. Feed the COM module's power cable through the right-hand (M16) cable gland of the PSU allowing sufficient length to make the connection to the spring terminals marked "Comms" inside the module.
5. Push the three wires (white, red, black) into the 'Comms' spring-clamp connectors of the power supply as shown on the right of the image below. Ensure that the cable colours are in the same order as shown, or refer to the circuit board silk-screen markings and the table below.

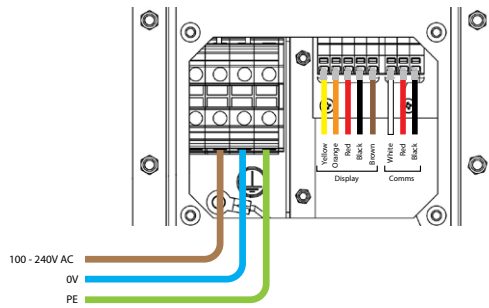


Connector	Colour code	Pin assignment	Function
Comms	White	22V DC	Output Fused
	Red	5V DC	Input
	Black	0V	Input

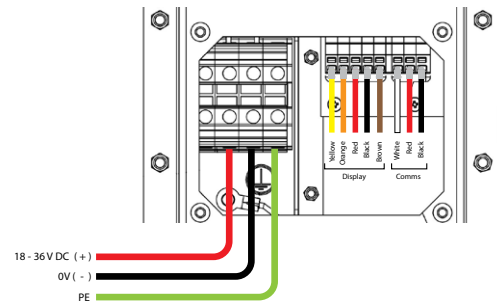
6. Feed the display module's power cable through the middle (M16) cable gland of the PSU allowing sufficient length to make the connection to the spring terminals marked "Display" inside the module.

Connector	Colour code	Pin assignment	Function
Display	Yellow	22V DC	Output
	Orange	22V DC	Output
	Red	5V	Output
	Black	0V	Output
	Brown	22V DC	Input fused

7. Push the five wires (yellow, orange, red, black and brown) into the 'Display' spring-clamp connectors of the power supply as shown on the left of the image above. Ensure that the cable colours are in the same order as shown, or refer to the circuit board silk-screen markings and the table above.
8. Feed the main power cable through the larger (M25) cable gland on the left-hand side of the PSU allowing sufficient length to make the connection to the screw terminals inside the module.
9. Connect the incoming power cable in the manner shown below as appropriate to the type of power supply.



AC power wiring



DC power wiring

10. When all connections have been made on the PSU, replace the cover securely using the four screws previously removed and tighten them to a maximum torque setting of 2 Nm.
11. Finally, tighten all three cable gland nuts to ensure a firm grip on the incoming cables

Confirm that all tools have been removed and no other loose items are left inside the enclosure before closing and locking the rear door. Power may now be restored to the enclosure.

## 8 INM MTL GECMA WS

If a touch-screen option has been chosen, then in order to use the touch-screen facility on the display it is necessary to install a USB driver on the PC.

The driver release version approved by GECMA Engineering is

**eGalaxTouch\_5.12.0.12204-Release131204.**

(Newer versions of the driver are available from the manufacturer's homepage but they are not yet approved by GECMA Engineering.)

This Driver is suitable for both 32-bit and 64-bit Windows Operating Systems and the operating system we recommend is Windows 7.

The driver is obtainable from two web sites

Recommended download Homepage: [www.gecma.com](http://www.gecma.com)

Official manufacturers Homepage: [http://www.eeti.com/drivers\\_Win.html](http://www.eeti.com/drivers_Win.html)

View of [www.gecma.com](http://www.gecma.com) download area

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- Challenger
- Explorer
- GECMA RT**
- Components
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### GECMA RT

All new modular **GECMA RT** remote operating station...a new generation, built on experience.

Designed with you in mind...

1. **Optimising your productivity**
2. **Increasing your plant safety**
3. **Reducing your plant costs**

The new GECMA RT is suitable for the strictest of hygienic conditions, aggressive production environments and hazardous areas, typically found in the Pharmaceutical, Chemical, Petrochemical, Oil & Gas and Off-shore manufacturing industries. This future proof solution has been designed with state of the art technology and unique features to bring you the best value.

- Unique and innovative platform concept, modular design saves you time and cost during installation, commissioning and operation
- Individually certified modules for quick and easy on-site maintenance
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- Lightweight, Slimline design helps you to optimise space and offers flexibility of application
- Fibre Optic or Copper data transmission for cost effective, reliable and increased volume of data transfer
- Unique Intrinsically Safe connection and Alarm visualisation to ensure safe, continuous operation in the hazardous area
- Single line data transmission for simple, cost effective installation and reliable transmission
- DVI & USB interfaces/transparent USB for quick and flexible connectivity

[Click here to view our overview brochure](#)

**Watch the video**

This video introduces the new and unique modular MTL GECMA RT remote operating terminal for Ex zone 1/2/22. Understand how this exciting new product can help you to optimise productivity, reduce your costs and increase safety.

[Contact your local sales office for more information.](#)

[Click here for certification information](#)

#### DOWNLOADS

Title	Download
<b>Brochures</b>	
GECMA RT overview brochure - DE	<a href="#">Download</a>
GECMA RT overview brochure - EN	<a href="#">Download</a>
<b>Datasheets</b>	
GECMA RT Datasheet	<a href="#">Download</a>
GECMA RT Safe Area Transmission Unit Desktop Datasheet	<a href="#">Download</a>
GECMA RT Safe Area Transmission Unit Rack Datasheet	<a href="#">Download</a>
<b>Manuals</b>	
GECMA RT Manual	<a href="#">Download</a>
<b>Software</b>	
Gecma 22 RT - Touch Driver	<a href="#">Download</a>

View of [www.eeti.com](http://www.eeti.com) download area



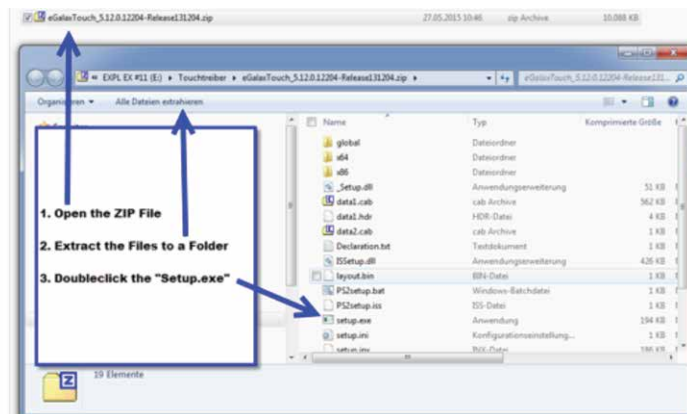
#### NOTE

The "Touch Controller" USB connection from the display can be plugged into the COMs unit before the Driver is installed.

#### NOTE

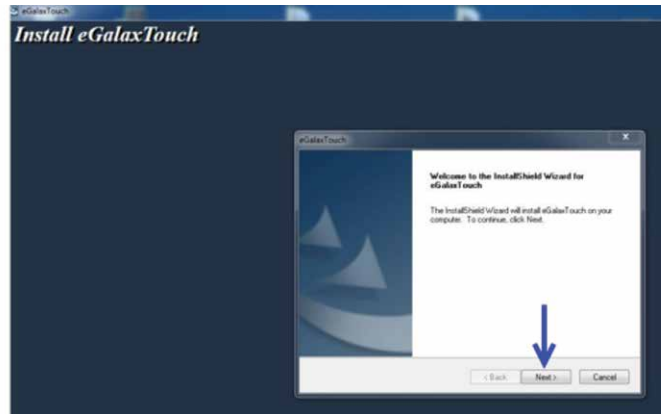
The person installing the driver will require "Administrator" rights. Check with your local IT Support before attempting to install.

Download the driver and extract the files from the ZIP archive.

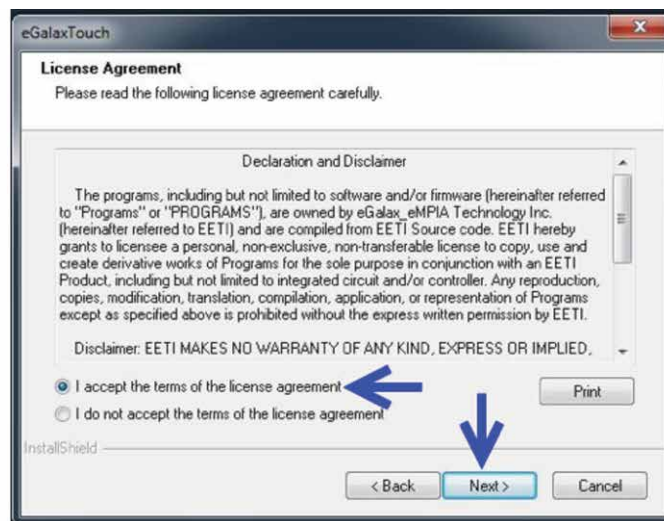


Start the Setup Process with the **"Setup.exe"** application.

In the Installation Window proceed with the **"NEXT"** Button



Accept terms and conditions and click **"Next"** again.

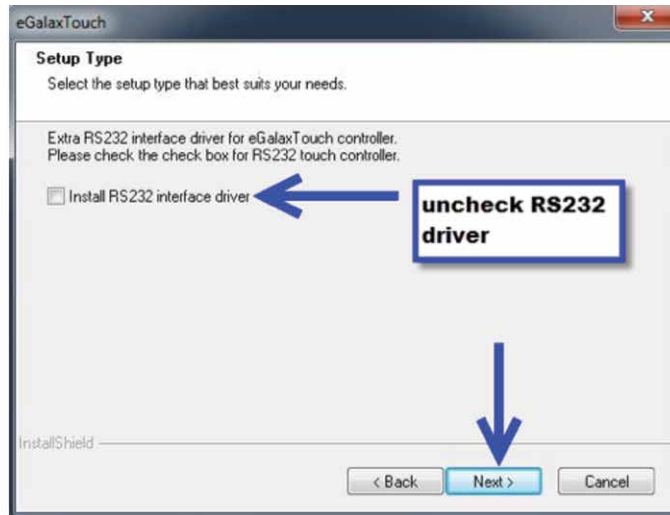


Uncheck the **"Install PS/2 interface driver"** option and proceed with **"Next"**.





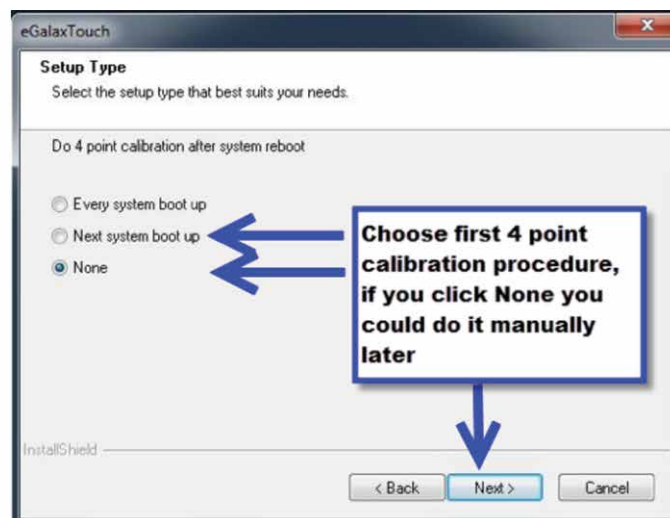
Uncheck the “Install RS232 driver” option and proceed with “**Next**”.



For the Setup Type, choose the “**None**” option for the 4 point calibration.

#### NOTE

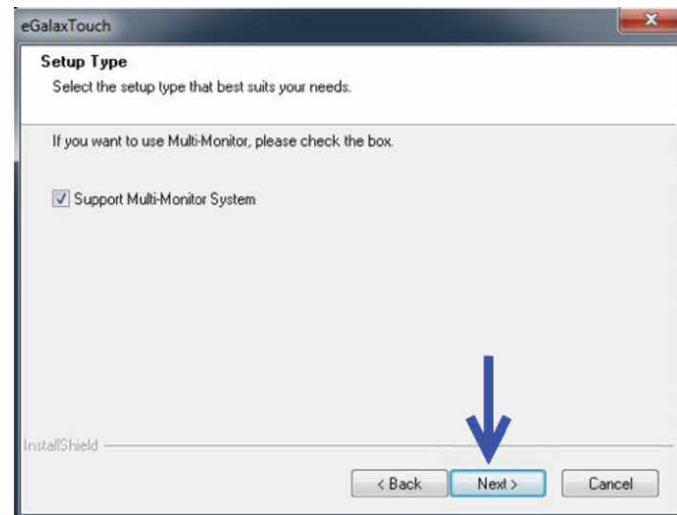
The Controller is factory calibrated and the data is stored on it. When the driver is installed, the controller is able to use the calibration settings. A new calibration is therefore not normally required.



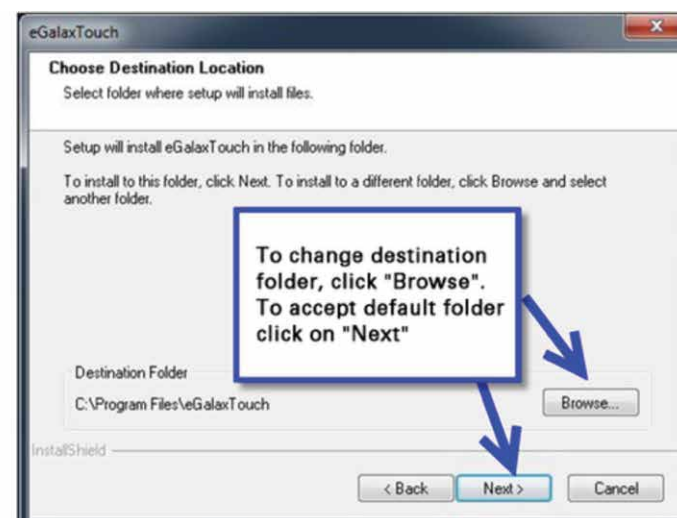
The **"Touch controller"** USB connection from the display must now be plugged into the COMs unit (if not already plugged in) then click **"OK"**.



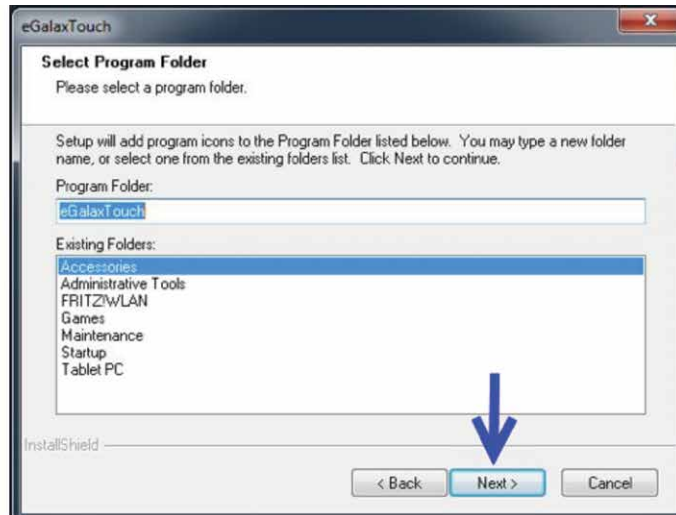
If you require a **"Multi-Monitor"** system then do not change the default setting, just click the **"Next"** Button, otherwise uncheck the checkbox.



Next you can specify the installation folder, or accept the default location.



Specify the Program Folder name and click **"Next"**



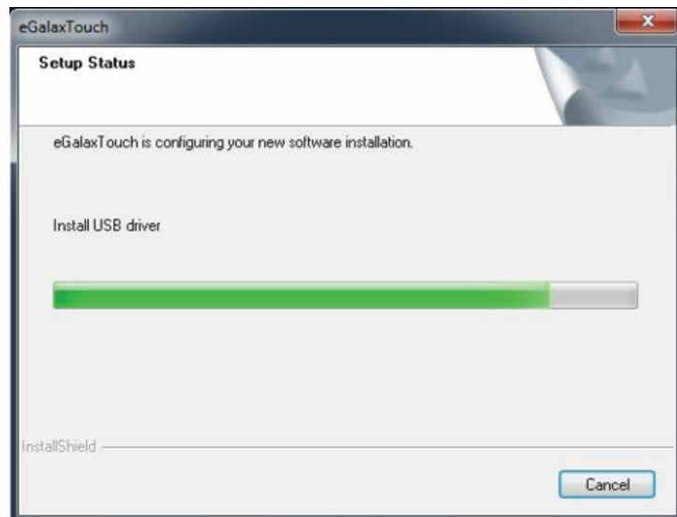
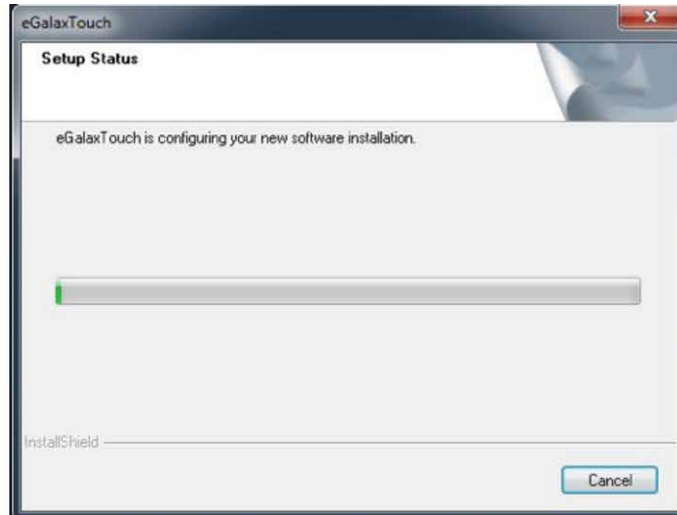
Uncheck the Shortcut checkbox if you don't want to have a Desktop Shortcut.



If you want a Start Menu shortcut to the Galaxy Driver accept the default and click on **"Next"**.



The installation starts now, please wait till it is finished.



Windows should now display that the new device has been recognized.



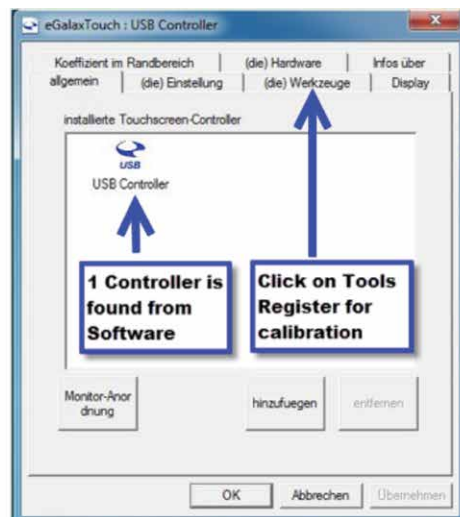
*Normally the Touchscreen should now work as expected and you can finish here.  
But if you think a new calibration is needed or you want to test some functions  
go on with the next steps!*

## Calibration

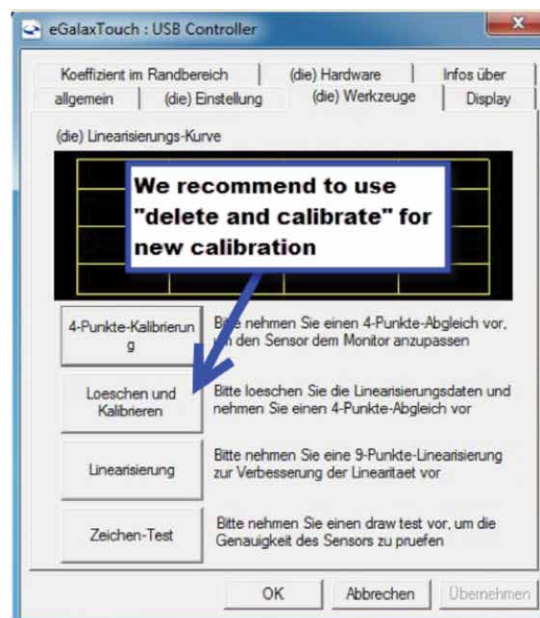
Open the eGalaxTouch program. If you chose the option, the shortcut icon shown below will be on your desktop.



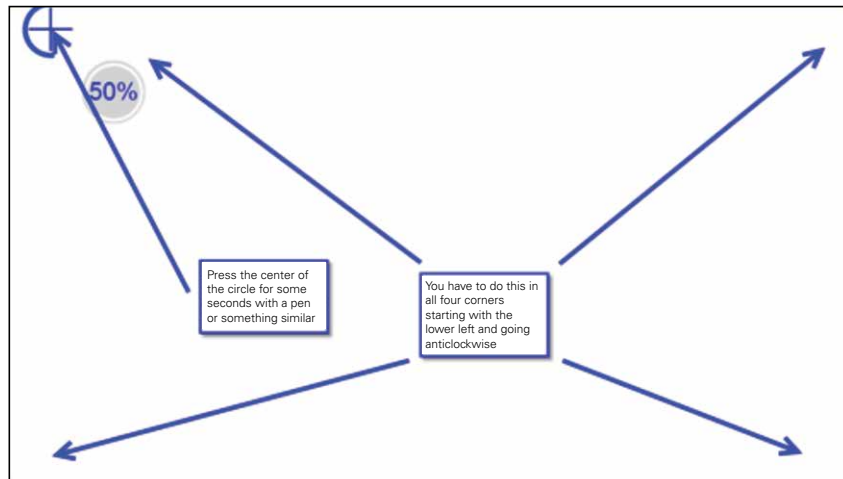
When the program opens it shows the connected controllers. In the Tools Register you can start a new calibration.



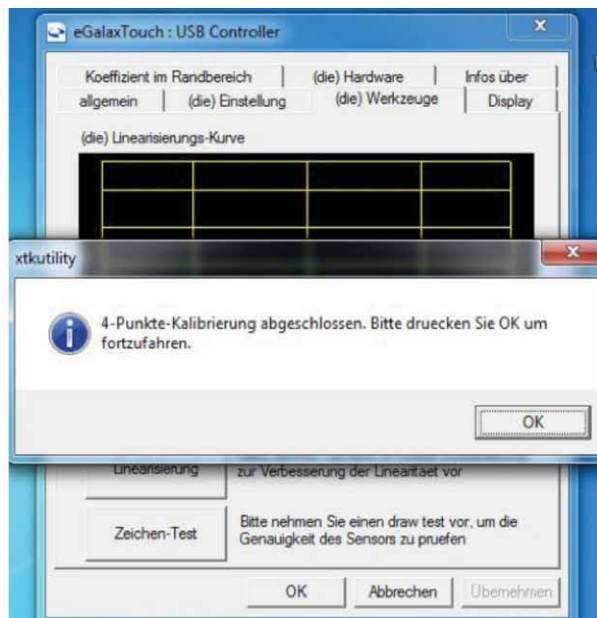
In the Tools Register tab please click on **"Delete and calibrate"**



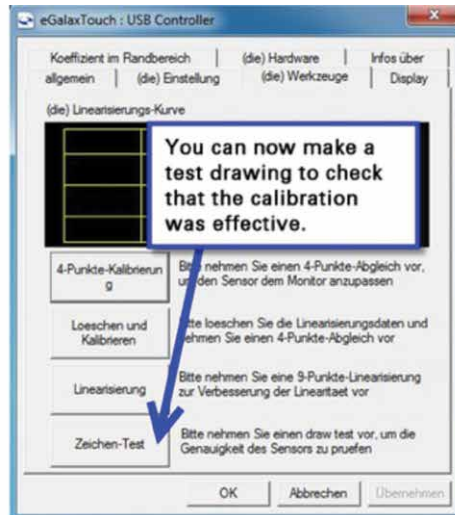
A new Window appears where you have to press the centre of the circles for some seconds with a pen or something similar.



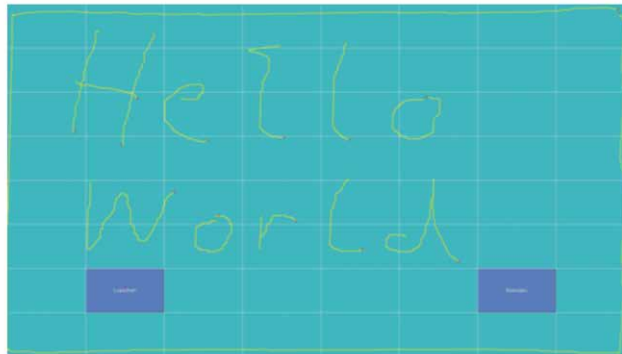
Afterwards, you should see a window for the positive calibration result.



You can make a test drawing to check how precise the calibration was.



If calibration was effective you should see what you have written on the screen. It is important to check that all the corners of the screen have been reached during the calibration process.

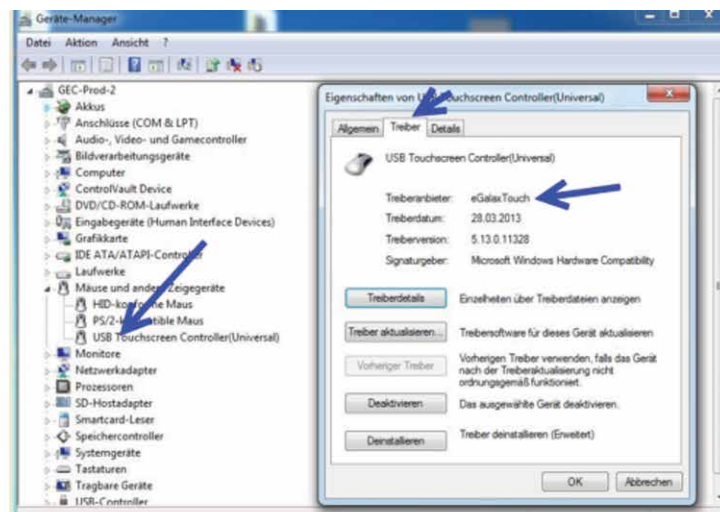


Check also that the controller is using the correct driver (it should use the eGalaxTouch driver and not Windows Universal driver).

Go to the **"Device manager"** screen in your **"System"** settings.

Right-click the item under the **"Mouse and other pointing devices"** heading and choose **"Properties"**.

The Driver tab should show the provider as **"eGalaxTouch"**.



The following drawings show the necessary dimensions of cutting and drilling operations appropriate to the mounting of the individual display models.

Third Angle Projection

Do Not Scale

Dimensions in mm

487  
(5x93=)465

93

5.5

5.65

10.5

75

407.3  
(5x75=)375

396

476

5.5

0.5 (5x2.5)

TOLERANCE TABLE	
GENERAL TOL	±0.3
HOLE CENTRES	±0.1
HOLE DIA	±0.1
ANGLES	±0.5°
ENCL OVERALL DIMS	±2
UNLESS OTHERWISE SPECIFIED	

REV.	DESCRIPTION	DATE	DRAWN BY	1	2	3	4	5	6	7	8
2	Drawing border changed	02.02.2016	MW								

Material  
Title

Weight kg

Scale 1:5 Sheet 1 of 1

Dwg. No.  
10104560

SAP-No.  
2

Cut-out drawing RT19 Display

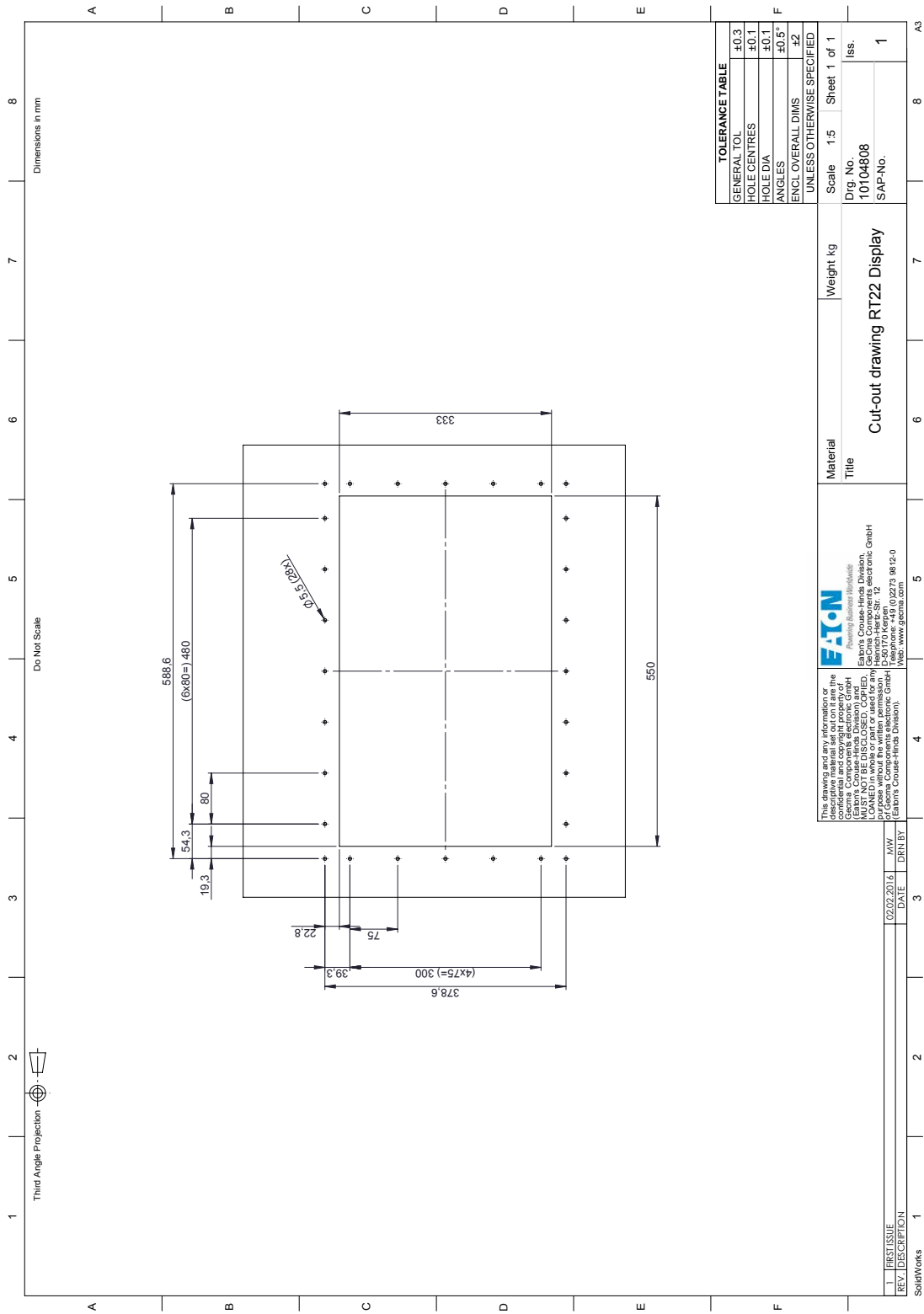
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Elektrotechnik Division,  
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Web: www.eaton.com

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MTL GECMA WS 22" display cutout



## 34





CROUSE-HINDS  
SERIES

## EC Declaration of Conformity

### Gecma RT

Document No. MTL14DOCGECMART

Issue No. 5

We declare under our sole responsibility that the product(s) listed below, to which this declaration relates, conform with the requirements of the Directives below by compliance with the standards listed.

**EMC Directive - Council Directive 2004/108/EC to 19 April 2016 and 2014/30/EU from 20 April 2016** relating to Electromagnetic Compatibility.

- a. EN 61326-1:2013                      Class A equipment. Table 2 – Industrial locations

**Low Voltage Directive - Council Directive 2006/95/EC to 19 April 2016 and 2014/35/EU from 20 April 2016** relating to Product Safety.

- b. EN 61010-1:2010  
c. IEC61010-2-201 Ed. 1

Compliance with the Low Voltage Directive (LVD) is not required for products covered by the ATEX Directive, however it is included in this declaration as the LVD may apply to these products if they are used in situations not covered by the ATEX Directive.

**ATEX Directive - Council Directive 94/9/EC to 19 April 2016 and 2014/34/EU from 20 April 2016** relating to equipment and protective systems intended for use in potentially explosive atmospheres.

- d. EN 60079-0:2012                      h. EN 60079-28:2007  
e. EN 60079-7:2007  
f. EN 60079-11:2012  
g. EN 60079-18:2009






Stewart Parfitt  
Engineering Director  
5<sup>th</sup> January 2016

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Website [www.mtl-inst.com](http://www.mtl-inst.com)

**Products covered by this declaration:**

Product	EMC <sup>1</sup> Standards	LVD <sup>1</sup> Standards	Year LVD Applied	ATEX <sup>1</sup> Standards	ATEX <sup>2</sup> Marking	R&TTE <sup>1</sup> Standards	Cat1/Cat2 ATEX Cert. No.	Cat3 ATEX Cert. No.
Gecma Remote Terminal Industrial	a	b, c	2014	N/A	N/A	N/A	None	None
Gecma Remote Terminal	a	b, c	2015	c, d, e, f, g	3	N/A	Sira14ATEX5064	None
Gecma RT Safe Area Unit (see note 8)	a	b, c	2015	c, g	4	N/A	Sira14ATEX9328	None
Gecma RT COM Module	a	b, c	2015	c, e, f, g	5	N/A	Sira14ATEX5062X	None
Gecma RT Display Module 22	a	b, c	2015	c, e, f	6	N/A	Sira14ATEX5063X	None
Gecma PSU Module AC	a	b, c	2015	c, d, e, f	7	N/A	Sira14ATEX5061X	None
Gecma PSU Module DC	a	b, c	2015	c, d, e, f	7	N/A	Sira14ATEX5061X	None

**Notes:**

- 1 Entries in this column may be either letter notation (a,b,c etc..) indicating which standards from page 1 apply, or N/A if the directive does not apply
- 2 Entries in this column refer to notes below indicating ATEX markings present on products, or N/A if the directive does not apply
- 3 ATEX marking  II 2(2)G Ex e mb[ib] ib op is IIC T4 Gb Ta = -15°C to +60°C
- 4 ATEX marking  II (2)GD [Ex op is T4 Gb Db] IIC Ta = -30°C to +60°C
- 5 ATEX marking  II 2(2)G Ex mb[ib] op is IIC T4 Gb Ta = -30°C to +60°C
- 6 ATEX marking  II 2G Ex mb ib IIC T4 Gb Ta = -30°C to +60°C
- 7 ATEX marking  II 2G Ex e mb IIC T4 Gb Ta = -30°C to +60°C
- 8 The Gecma RT Safe Area unit has various versions which are covered by this declaration – multi-mode or single mode, rack mount or desktop, and 1 to 4 KVMs (rack mount only)

**Notified Bodies responsible for issuing Cat 1 or 2 ATEX Certificates:**

0518 SIRA Certification Service, Chester, CH4 9JN. United Kingdom

**Notified Body responsible for ATEX QA regimes:**

1180 SGS Baseefa, Buxton, SK17 9RZ. United Kingdom

## Appendix C - Returns (RMA order)


Dear Customer

Should you find your goods are defective or require a warranty repair, please complete the on-line form on our website at [www.gecma.com/resources/rma](http://www.gecma.com/resources/rma) to obtain a RMA reference for the return of your goods. Please note that the processing of your return will take longer if goods are sent back to us without a valid RMA number. An RMA number must be included so that your return can be processed quickly and efficiently.

Please have the following information ready:

1. Product name and serial number – you may enter multiple answers where there is more than one product
2. An error description with as much detail as possible
3. Contact information (responsible person(s) and shipping address)
4. If you have submitted the form, you shall receive two emails:
  - A confirmation email (IMPORTANT: Please check your junk mailbox)
  - An email with the RMA number to be used (this will be sent to you as soon as possible)

Please make the RMA number clearly visible on the package and also include this on the delivery note.

	<p style="text-align: center;"><b>WARNING!</b></p> <p>Please ensure prior to returning defective devices that the goods being sent back were not used in areas harmful to health and were cleaned according to the applicable provisions of the Occupational Health and Safety Act.</p>
---	---

Suitable packaging material can be provided for the return for a surcharge.

Please send the goods, with the RMA number clearly visible on the package, to the following address:

**Eaton's Crouse-Hinds division**  
**GECMA Components electronic GmbH**  
**Heinrich-Hertz-Strasse 12**  
**50170 Kerpen, Germany**

If you require further assistance, please use our product support form, which can be found within the resource section at [www.gecma.com](http://www.gecma.com), alternatively you can call us on:

**+49 (0) 2273 – 9812 – 0**

**+49 (0) 2237 – 9812 – 364**

Thank you

Your Customer Service Department Team

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Publication No. INM MTL GECMA WS display Rev 1 070316  
March 2016

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sales.mtlsing@eaton.com

The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.