9.0 End of Line Monitoring

An End of Line monitoring Diode or an End of Line monitoring Resistor can be connected across the 24V+ and 0 terminals. Resistor values for the End of Line will be determined by the customer with a minimum value of 1.2kΩ

10.0 Maintenance

Little or no maintenance is required during the normal working life of the product. The Ex-Tech Signalling Exd enclosures are resistant to most acids, alkalis and chemicals and have been designed to withstand severe weather conditions. However it is suggested that to avoid the possibility of a potential electrostatic charge build up, the exterior of the product is periodically wiped down with a clean damp cloth. At this point a visual inspection is recommended to ensure that the product is in good working order and no damage has been sustained during its normal operation.

11.0 Conditions for Safe Usage

i) This apparatus is suitable to be used only in ambient temperature as stated below:

Type	Ambient Temp
CP135	-40^{0}C to +70^{0}C

ii) Do not paint or change the surface finish of the unit. The coating applied by the manufacturer is Anti-Static & UV Stable.

Specific Condition for Use

Repairs of the flameproof joints must be made in compliance with the structural specifications provided by the manufacturer.Repairs must not be made on the basis of values specified in tables 1 and 2 of EN/IEC 60079-1.

Please contact Ex-Tech Signalling for further details.

Ex-tech Signalling

INSTALLATION & TECHNICAL INFORMATION

PLEASE READ TO INSTALLATION

CP135 Series - (Explosion Proof Call Point)

Glass Reinforced Polyester

APPROVALS AND CONFORMITIES

1.0 Introduction

The CP135 range is certified for use and installation in Zone 1 and Zone 2 with gas groups IIA, IIB+H_2 also Zones 21 and 22 for Dust. The unit carries a temperature classification of T4~T6. It especially applies to Oil & Gas, Offshore Platform, Chemical, Petrochemical, Refinery and Marine Industries etc. Enclosure material is UV and corrosion resistance GRP (Glass Reinforced Polyester). The manual call point has been designed for ease of installation and operation.

These call points are compatible for use with PLC, DCS & ESD systems via a 4-20mA output. They are intended for use in Fire Alarm Systems as a fixed addressable unit in potentially explosive atmospheres.

There are three types of Manual Call Points available with LED indication.

- **Red LED Indicator Only:** During normal operation the LED will not be on. The LED will only come on when the call point is activated by breaking the glass.
- **Green LED Indicator Only:** During normal operation the LED will be on. The LED will go off when the call point is activated by breaking the glass.
- **Red & Green Indicators:** During normal operation the Green LED will be on. The Red LED will come on when the call point is activated by breaking the glass. At this point the Green LED will go off.

7.0 Operation

In this model series, the units either come with a hinged flap (to prevent accidental activation of the unit) or no hinged flap.

In either case the glass must be broken with the hammer supplied with the unit to activate it (see diagram 3).

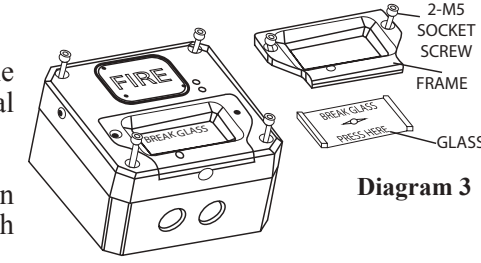


Diagram 3

Replacement of Glass
To replace the glass after operation of the unit, remove the small cover held in place by the two slotted screws. Take out the glass and remove any broken fragments from the unit. Place a new glass into the unit and replace the cover. (see diagram 3).

Testing the Unit
Insert the test key facility to the key hole located in the lower left corner of the cover. Then turn the key clockwise. The glass sheet will drop. This will simulate the breaking of the glass. Turn the key anti clockwise to reset the unit.

8.0 Cable Gland

Only cable glands approved for Exd applications can be used with Ex-Tech Signalling Explosion Proof Products, these must be suitable for the type of cable being used and also meet the requirements of the Exd flameproof installation standard EN 60079-14.

SAFETY WARNING
If units are used at high ambient temperatures, i.e. over $+40^0$C then the cable entry temperature may exceed $+70^0$C and therefore suitable heat resisting cable glands must be used, with a rated service temperature of at least 85^0C.

If a high IP (Ingress Protection) rating is required, a suitable sealing washer must be fitted under the cable gland. Any unused cable entry holes must be closed with an Exd flameproof blanking plug, which must be suitably approved for the installation requirements.

6.0 Wiring

General Requirement

Ex-Tech Signalling recommends that all cables and cores should be fully identified (suggest using cable from 2.0 to 2.5 mm²). Ensure that all nuts, bolts and screws are secured. Ensure that only the right and certified cable glands are used and earthed correctly. Ensure that only the right and certified stopping plugs are used to blank off unused gland entry points.

Cable Connection

The cable connection is made to the 10-hole terminal block marked T1-T10 inside the enclosure (see diagram 2). Cable connection should be carried out in accordance with relevant technical requirements.

Remove Front Cover

CAUTION: Before removing the cover, ensure the power to call point is isolated. Unscrew the four (4) M5 retained Hex Head socket screws to open the cover.

Note: it recommended to open one blind plug to avoid internal vacuum in the unit

This will release the cover from the base and allow the cover to hang on the retaining wire strap. Before replacing the cover, check that the flameproof joints are clean andnot damaged, the gasket is still retained in its groove (see diagram 2).
As lubrication / grease for the flameproof joint, a thin film of Acid free Vaseline (soap-thickened mineral oils) or mineral oil can be used, excessive lubrication/ grease shall be removed before assembling.
Reinstall the cover in similar way, but operate in reverse manner as above.

Recommended Bolt Torque for M5 lid screws are 4.5Nm

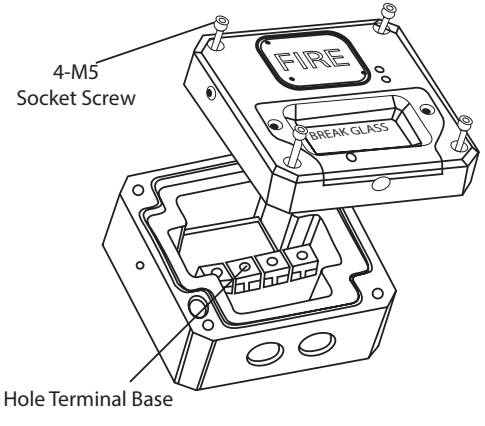


Diagram 2

2.0 Explosion-Proof Labelling

All products have a rating label with the following important information:

Product order no: eg CP135SNNYNNABRD (Refer to the datasheet for product order selection)

Input voltage:	<30V DC / 6A or <250V AC / 11A Ex d IIB
Code:	+H2 T6 Gb, Ex tb IIIC T85^{0}C
Nemko ATEX Certificate No:	Nemko 13ATEX 1568X
ATEX Mark:	
IECEx Certificate:	IECEx-NEM 13.0038X
Gas Group and Category:	II 2GD
CE Mark:	Mark No: 0470
Warning:	**DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE IS PRESENT**

Finished product serial no: ie.CP135-110140001
CP135- GRP Manual Call Point: **110**- France, **14**- Year, **0001**- Product serial number

3.0 Type Approval Standard

The Ex-Tech Signalling product range all have an EC Type Examination Certificate issued by Nemko and have been approved to the following standards:

EN 60079-0:2012 (IEC 60079-0:2011), EN-60079-1:2007 (IEC 60079-1:2007) EN 60079-31:2009 (IEC 60079-31:2008)

4.0 Zones, Gas Group, Category and Temperature Classification

The CP135 series products have been certified Ex d IIB+H_2 T6.

This means that the units can be installed in locations with the following conditions:

Area Classification:

Zone 1: Explosive gas air mixture likely to occur in normal operation.

Zone 2: Explosive gas air mixture not likely to occur, and if it does, it will only exist for a short time.

Gas Groupings: IIB+H2.

Zone 21: Explosive dust air mixture likely to occur in normal operation.

Zone 22: Explosive dust air mixture not likely to occur, and if it does, it will only exist for a short time.

Equipment Category: 2GD

Temperature Range: $-40^0C < Ta < +70^0C$

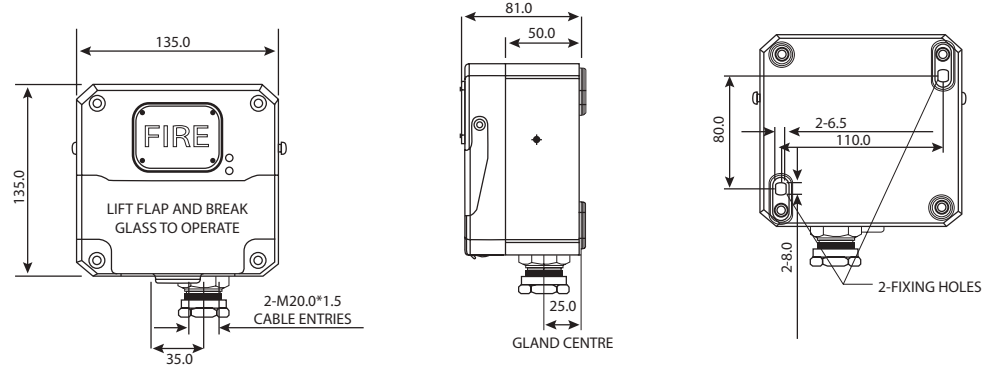
5.0 Installation

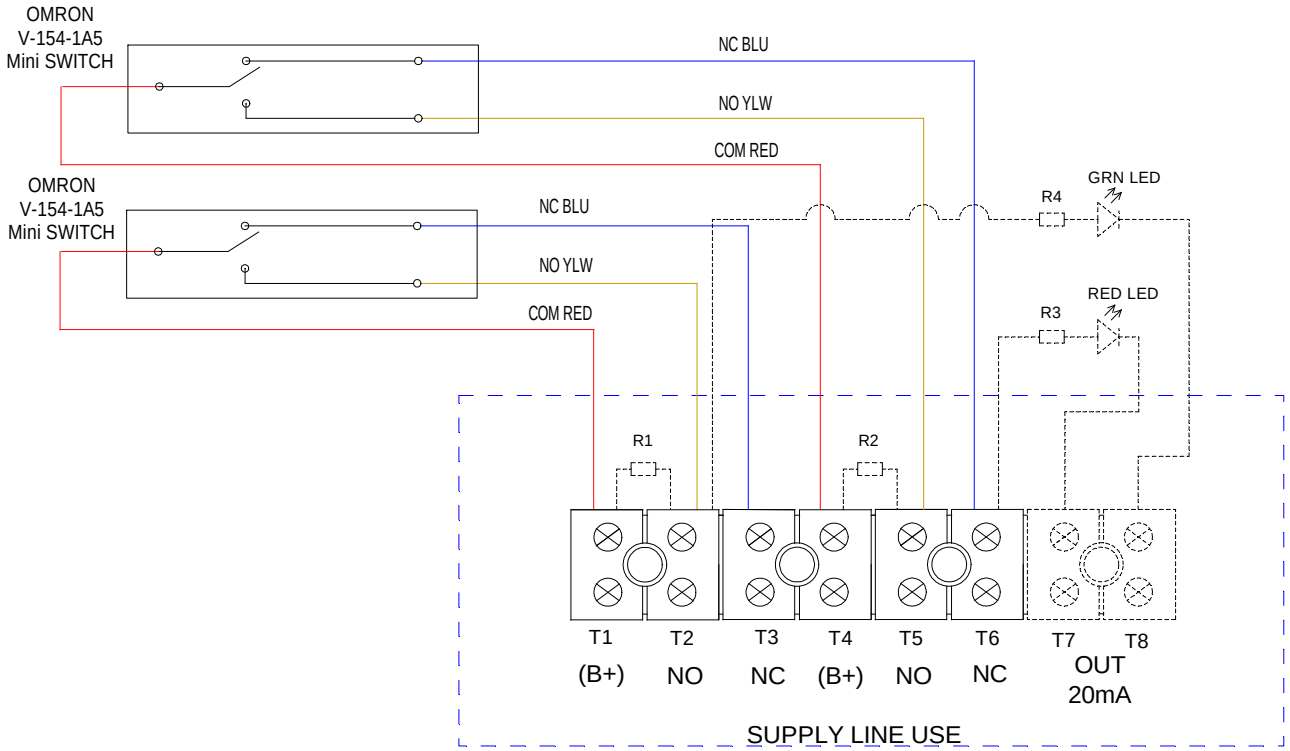
General Requirement
The product must be installed in accordance with the latest EN60079-0 and EN60079-1 specification or the equivalent IEC specification. Product installation must be carried out in accordance with any local codes that may apply and should only be carried out by a competent electrical engineer.

Location
The location of the unit should be chosen with due regard to access. The unit should only be fixed to services that can support the weight of the unit.

Mounting
The product should be mounted on a vertical surface using four fixing holes in the base. The fixing holes are designed to fit M5 Allen Screw only. Use of stainless steel fasteners is recommended by Ex-Tech Signalling. The unit can be operated in any attitude. If you need a mounting plate, please contact Ex-Tech Signalling to ask for the mounting plate installation drawing (see diagram 1).

Diagram 1





Attention Please:

R3 = 1.2K Ohm / R4 : 2.4K Okm

Customize Project :

- ☐ Resistor R1 & R2
- ☐ RED LED
- ☐ GRN LED

Revision - date	Reason
01-08/03/2016	Mise à jour
00-17/09/2015	Creation

Material

Treatment

Specifications

Ex-tech Signalling

Size : A3

Drawing part

WIRING DIAGRAM
CP 135 DOUBLE SWITCH
WITH LED OR RESISTOR

Scale : 1 : 1

Drawn by : P. TRAUMAT

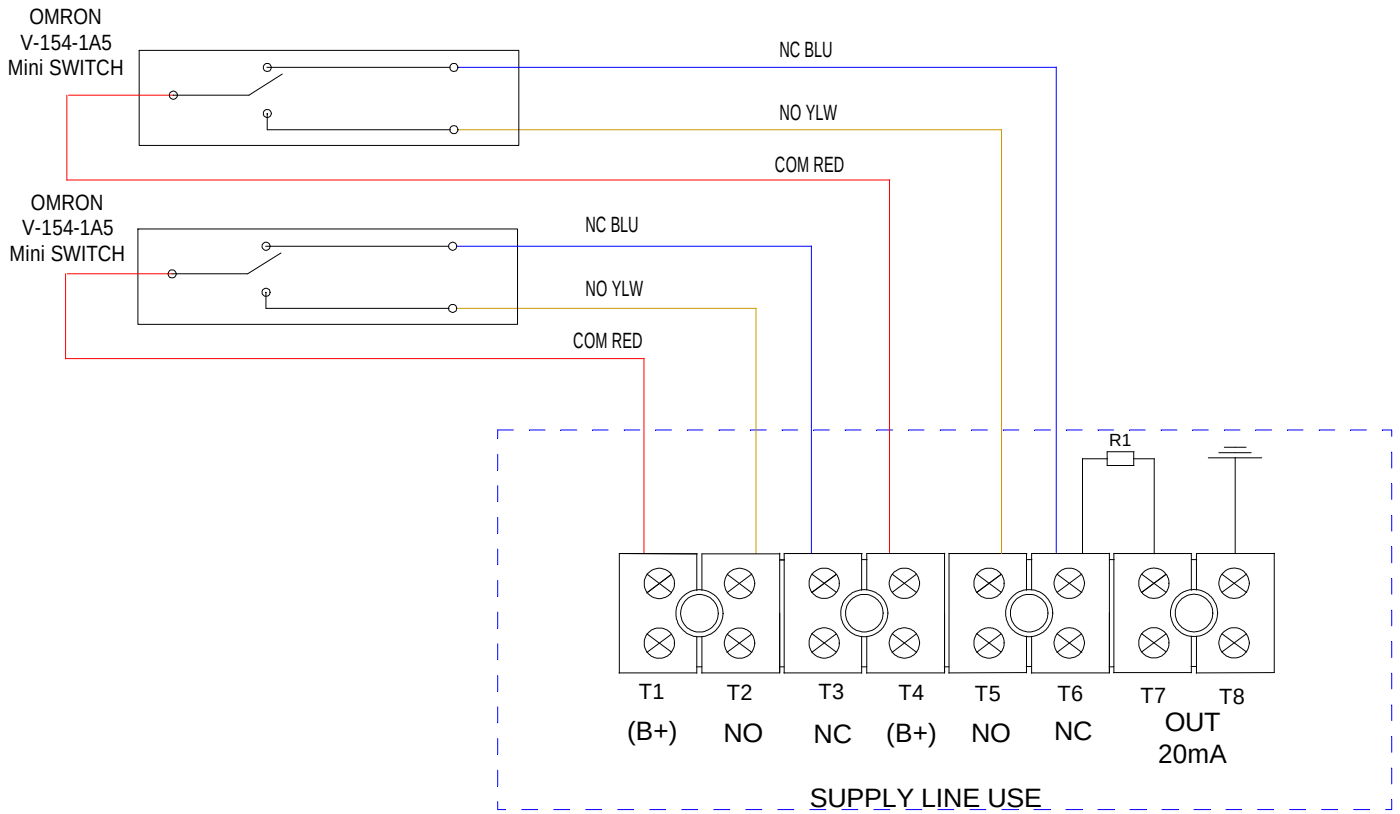
Date : 17/09/2015

Project / N° PO	Dossier
-	-

N° Drawing	Index	Folio
CP 135 DOUBLE SWITCH WITH LED OR RESISTOR	01	1/1

Attention Please:

R1 = 1.2K Ohm



Revision - date	Reason
01-08/03/2016	Mise à jour
00-17/09/2015	Creation

Material

Treatment

Specifications

Ex-tech Signalling

Size : A3

Drawing part

WIRING DIAGRAM
CP 135 DOUBLE SWITCH
WITH RESISTOR

Scale : 1 : 1

Drawn by : P. TRAUMAT

Date : 17/09/2015

Project / N° PO : -

Dossier : -

N° Drawing : CP 135 DOUBLE SWITCH WITH RESISTOR

Index : 01

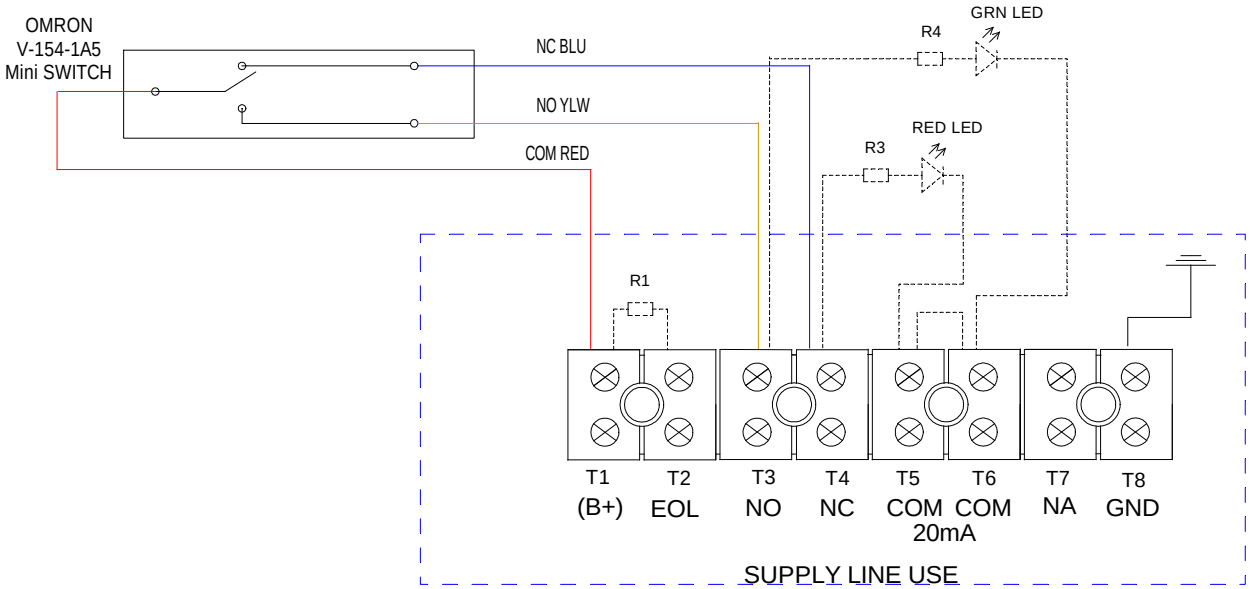
Folio : 1/1

Attention Please:

R3 = 1.2K Ohm / R4 : 2.4K Okm

Customize Project :

- ☐ Resistor R1
- ☐ RED LED
- ☐ GRN LED



Revision - date	Reason
02-08/09/2016	Mise à jour
01-08/03/2016	Mise à jour
00-17/09/2015	Creation

Material

Treatment

Specifications

Ex-tech Signalling

Size : A3

Drawing part

WIRING DIAGRAM
CP 135 SINGLE SWITCH
WITH LED OR RESISTOR

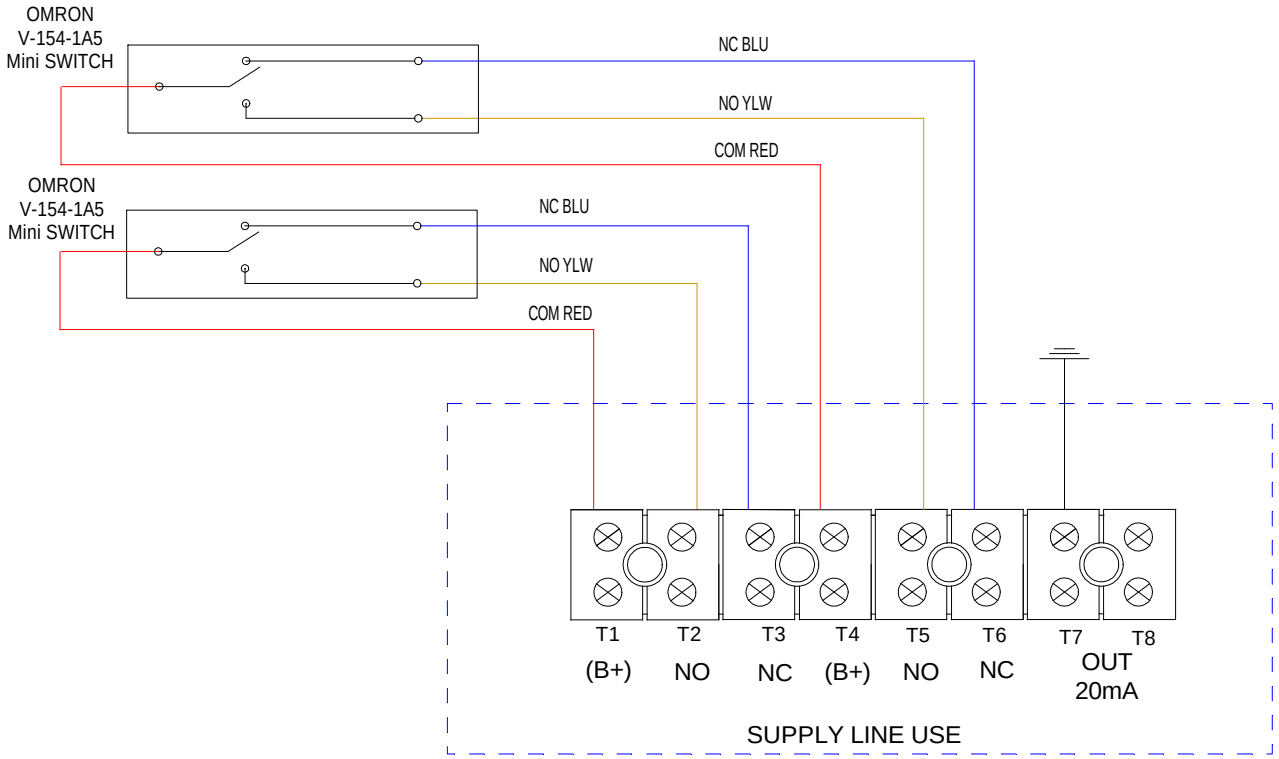
Scale : 1 : 1

Drawn by : P. TRAUMAT

Date : 17/09/2015

Project / N° PO	Dossier
-	-

N° Drawing	Index	Folio
CP 135 SINGLE SWITCH WITH LED OR RESISTOR	02	1/1



Revision - date	Reason
01-08/03/2016	Mise à jour
00-28/09/2015	Creation

Material

Treatment

Specifications

Ex-tech Signalling

Size : A3

Drawing part

WIRING DIAGRAM
CP_PB 125-135-150 DOUBLE SWITCH
WITHOUT LED AND RESISTOR

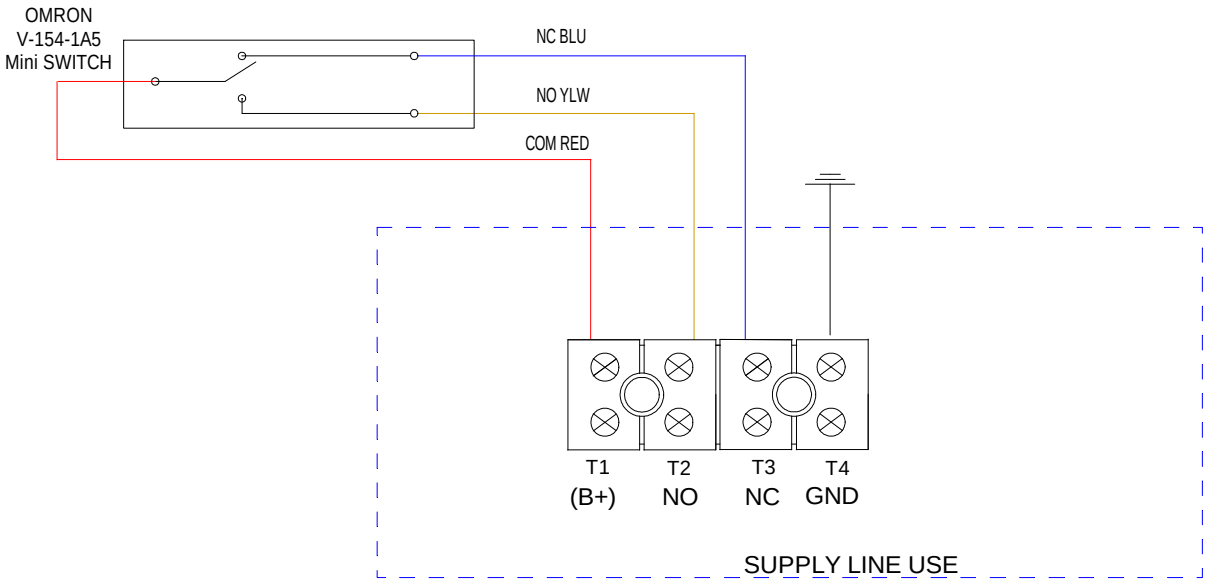
Scale : 1 : 1

Drawn by : P. TRAUMAT

Date : 28/09/2015

Project / N° PO	Dossier
-	-

N° Drawing	Index	Folio
CP_PB 125-135-150 DOUBLE SWITCH WIHTOUT LED AND RESISTOR	01	1/1



Revision - date	Reason
01-08/03/2016	Mise à jour
00-28/09/2015	Creation

Material

Treatment

Specifications

Ex-tech Signalling

Size : A3

Drawing part

WIRING DIAGRAM
CP_PB 125-135-150 SINGLE SWITCH
WITHOUT LED AND RESISTOR

Scale : 1 : 1

Drawn by : P. TRAUMAT

Date : 28/09/2015

Project / N° PO	Dossier
-	-

N° Drawing	Index	Folio
CP_PB 125-135-150 SINGLE SWITCH WIHTOUT LED AND RESISTOR	01	1/1