

INSTRUCTION MANUAL

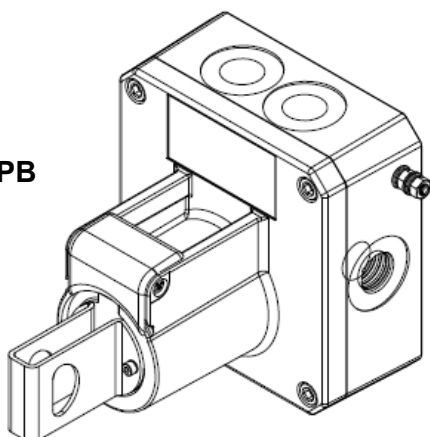
**STExCP8-PB-S, STExCP8-PB-D, STExCP8-PM-S, STExCP8-PM-D,
STExCP8-PT-S, STExCP8-PT-D Call Points**

Class I & II Div 2 ; UL60947

NEC / CEC / IECEx / UKEx Zone 1, 2, 21, 22 / DNV

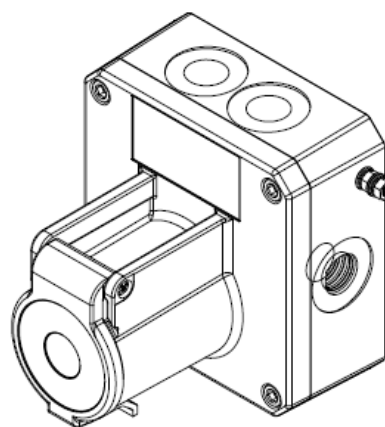


STExCP8-PB



STExCP8-PM

STExCP8-PT



1) Product Table

Model No.	Input Voltage	Input Current
STExCP8-PB-S (Single Switch) STExCP8-PT-S (Single Switch) STExCP8-PM-S (Single Switch) STExCP8-PB-D (Dual Switch) STExCP8-PT-D (Dual Switch) STExCP8-PM-D (Dual Switch)	250Vac Max	5.0A Max ATEX/IECEX/UKEx 3.33A Max Class Div/Zone
STExCP8-PB-S (Single Switch) STExCP8-PT-S (Single Switch) STExCP8-PM-S (Single Switch) STExCP8-PB-S-L (Single Switch with LED) STExCP8-PT-S-L (Single Switch with LED) STExCP8-PM-S-L (Single Switch with LED) STExCP8-PB-D (Dual Switch) STExCP8-PT-D (Dual Switch) STExCP8-PM-D (Dual Switch) STExCP8-PB-D-L (Dual Switch with LED) STExCP8-PT-D-L (Dual Switch with LED) STExCP8-PM-D-L (Dual Switch with LED)	48Vdc Max	1.0A Max
	24Vdc Max	3.0 Max
STExCP8-PB-S-C (Single Switch with LED) STExCP8-PT-D-C (Dual Switch with LED) STExCP8-PM-S-C (Single Switch with LED) STExCP8-PB-D-C (Dual Switch with LED) STExCP8-PT-S-C (Single Switch with LED) STExCP8-PM-D-C (Dual Switch with LED)	48Vdc Max	20mA Max

Table 1: Electrical Ratings

2) Warnings



WARNINGS:

USE COVER BOLTS CLASS A4-70

DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT

POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS

ALL ENTRIES M20 X 1.5

TO REDUCE THE RISK OF IGNITION OF HAZARDOUS ATMOSPHERES, CONDUIT RUNS

MUST HAVE A SEALING FITTING CONNECTED WITHIN 2 INCHES OF ENCLOSURE

AVERTISSEMENT:

UTILISER COUVRIR BOULONS CLASSE A4-70

NE PAS OUVRIR UN PRESENCE D'ATMOSPHERE EXPLOSIVE

DANGER POTENTIEL CHARGE ÉLECTROSTATIQUE - VOIR LES INSTRUCTIONS

TOUTES LES ENTRÉES M20 x 1.5

POUR RÉDUIRE LE RISQUE D'INFLAMMATION DES ATMOSPHÈRES DANGEREUSES, LES CONDUITES DE CONDUIT DOIVENT AVOIR UN RACCORD D'ÉTANCHÉITÉ RACCORDÉ À MOINS DE 2 POUCHES DE ENCLOS

3) Marking & Rating Information

The STExCP8-PB, -PT, -PM Call Points comply with the following standards for hazardous locations:

3.1 Class/Division Ratings for US & Canada



All models are approved for use as Alarm System use:

UL 60947-4-1 LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR - PART 4-1: CONTACTORS AND MOTORSTARTERS - ELECTROMECHANICAL CONTACTORS AND MOTOR-STARTERS- Edition 3 - Revision Date 2017/10/17

CSA C22.2 NO. 60947-4-1-14 LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR — PART 4-1: CONTACTORS AND MOTOR-STARTERS — ELECTROMECHANICAL CONTACTORS AND MOTOR-STARTERS- Edition 2 - Issue Date 2014/01/04

For Indoor and Outdoor Use
Pour usage Interieur INTÉRIEUR

Ambient Temperature Range:
-55°C to +60°C

Standards	
UL 60079-0:2017 (Ed 6): Explosive Atmospheres - Part 0: Equipment - General requirements UL 60079-1:2015 (Ed7): Explosive Atmospheres - Part 1: Equipment protection by flameproof enclosures "d"	
CSA C22.2 NO. 60079-0:2015 (Ed 3) Explosive Atmospheres – Part 0: Equipment – General requirements CSA C22.2 NO. 60079-1:2016 (Ed 3): Explosive Atmospheres – Part 1: Equipment protection by flameproof enclosures "d"	
Class Division Ratings for US (NEC) & Canada (CEC)	
Model No:	Rating
STExCP8-PB-S STExCP8-PT-S STExCP8-PM-S STExCP8-PB-S-L STExCP8-PB-S-C STExCP8-PT-S-L STExCP8-PT-S-C STExCP8-PM-S-L STExCP8-PM-S-C STExCP8-PB-D STExCP8-PT-D STExCP8-PM-D	Class I Div 2 Group ABCD T6 Ta -55°C to +60°C

STExCP8-PB-D-L STExCP8-PB-D-C STExCP8-PT-D-L STExCP8-PT-D-C STExCP8-PM-D-L STExCP8-PM-D-C	Class I Div 2 Group ABCD T5 Ta -55°C to +60°C Class I Div 2 Group ABCD T6 Ta -55°C to +50°C
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Class Zone Ratings for US (NEC)

Model No:	Rating
STExCP8-PB-S STExCP8-PT-S STExCP8-PM-S STExCP8-PB-S-L STExCP8-PB-S-C STExCP8-PT-S-L STExCP8-PT-S-C STExCP8-PM-S-L STExCP8-PM-S-C STExCP8-PB-D STExCP8-PT-D STExCP8-PM-D	Class I Zone 1 AEx db IIC T6 Gb Ta -55°C to +60°C
STExCP8-PB-D-L STExCP8-PB-D-C STExCP8-PT-D-L STExCP8-PT-D-C STExCP8-PM-D-L STExCP8-PM-D-C	Class I Zone 1 AEx db IIC T5 Gb Ta -55°C to +60°C Class I Zone 1 AEx db IIC T6 Gb Ta -55°C to +50°C

Class Zone Ratings for Canada (CEC)

Model No:	Rating
STExCP8-PB-S STExCP8-PT-S STExCP8-PM-S STExCP8-PB-S-L STExCP8-PB-S-C STExCP8-PT-S-L STExCP8-PT-S-C STExCP8-PM-S-L STExCP8-PM-S-C STExCP8-PB-D STExCP8-PT-D STExCP8-PM-D	Ex db IIC T6 Gb Ta -55°C to +60°C
STExCP8-PB-D-L STExCP8-PB-D-C STExCP8-PT-D-L STExCP8-PT-D-C STExCP8-PM-D-L STExCP8-PM-D-C	Ex db IIC T5 Gb X Ta -55°C to +60°C Ex db IIC T6 Gb X Ta -55°C to +50°C

Installation must be carried out in compliance with the National Electric Code / Canadian Electric Code

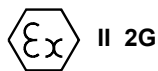
3.2 ATEX / IECEx & UKEx Ratings

Standards
EN60079-0:2018/IEC60079-0:2017 (ed.7): Explosive Atmospheres - Equipment General Requirements. EN60079-1:2014/IEC60079-1:2014 (ed.7): Explosive Atmospheres - Equipment Protection by Flameproof Enclosures "d".

Model No:	Rating
STExCP8-PB-S STExCP8-PT-S STExCP8-PM-S	Ex db IIC T6 Gb Ta -55°C to +70°C
STExCP8-PB-S-L STExCP8-PB-S-C STExCP8-PT-S-L STExCP8-PT-S-C STExCP8-PM-S-L STExCP8-PM-S-C	Ex db IIC T5 Gb Ta -55°C to +70°C Ex db IIC T6 Gb Ta -55°C to +65°C
STExCP8-PB-D STExCP8-PT-D STExCP8-PM-D	Ex db IIC T5 Gb Ta -55°C to +70°C Ex db IIC T6 Gb Ta -55°C to +60°C
STExCP8-PB-D-L STExCP8-PB-D-C STExCP8-PT-D-L STExCP8-PT-D-C STExCP8-PM-D-L STExCP8-PM-D-C STExCP8-PB-D STExCP8-PT-D STExCP8-PM-D	Ex db IIC T4 Gb Ta -55°C to +70°C Ex db IIC T5 Gb Ta -55°C to +65°C Ex db IIC T6 Gb Ta -55°C to +50°C
See Product table for electrical ratings of each unit model	

Certificate No. DEMKO 15 ATEX 1589X
IECEX ULD 15.0018X
UL21UKEX2133X

ATEX Marking
Equipment Group and
Category:



CE Marking
Notified Body No.



UKCA Marking
Notified Body No.



3.3 DNV Type Approval

The units have been tested and approved for the installation on ships in the following locations:

Temperature:	Class A,B,C & D (all locations including open decks and masts)
Humidity:	Class A & B (all locations)
Vibration:	Class A (all locations except installation on machinery such as combustion engines, compressors, pumps, including piping on such machinery)
EMC:	Class A & B (all locations including open decks and bridge)
Enclosure:	Class A, B & C – IP66 (all locations except submerged applications and bilges)

4) Zones, Gas Group, Category and Temperature Classification

The units can be installed in locations with the following conditions:

Area Classification Gas	
Zone 1	Explosive gas air mixture likely to occur in normal operation.
Zone 2	Explosive gas air mixture not likely to occur in normal operation, and if it does, it will only exist for a short time.
Gas Groupings	
Group IIA	Propane
Group IIB	Ethylene
Group IIC	Hydrogen and Acetylene
Temperature Classification for Gas Applications	
T1	450° C
T2	300° C
T3	200° C
T4	135° C
T5	100°C (STExCP8-P*-D-L or C only up to Tamb 65°C)
T6	85°C (STExCP8-P*-D only up to Tamb 60°C) (STExCP8- P*-S-L or C only up to Tamb 65°C) (STExCP8- P*-D-L or C only up to Tamb 50°C)
Equipment Category	
2G	
Equipment Protection Level	
Gb, Gc	
Ambient Temperature Range	
-55°C to +70°C (-67°F to +158°F) ATEX/IECEX/UKEx -55°C to +60°C (-67°F to +140°F) Class Zone	
IP Rating	
IP66 to EN60529 4 / 4X / 3R / 13 to UL50E / NEMA250	

5) Specific Conditions for Safe Use

On completion of the installation the flameproof joint surfaces should be inspected to ensure that they are clean and that they have not been damaged during installation. Flameproof joints are not permitted to be repaired.

Equipment is permitted to be wall mounted only in vertical position. The enclosure base is permitted in two mounting positions, with the double entry lowermost or uppermost.

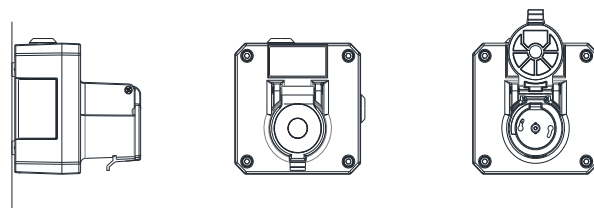


Fig 1 Wall Mounting

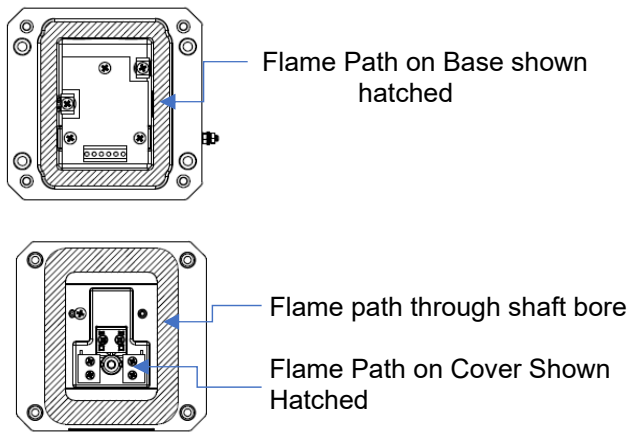
When fitting the flameproof cover ensure the cover is sitting flat and correctly positioned on the base. Insert the M6 x 25

cover bolts and fully tighten down (tightening torque 8.8Nm), ensuring no gap is visible between the cover and base of the enclosure.

The metallic enclosure has a non-conductive coating. These may generate an ignition-capable level of electrostatic charges under certain extreme conditions. The user should ensure that the equipment is not installed in a location where it may be subjected to external conditions that might cause a build-up of electrostatic charges on non-conducting surfaces.

Additionally, cleaning of the equipment should be done only with a damp cloth.

6) Flame Path Positions



No repair to the Flamepaths is permitted

7) Location and Mounting

The location of the call point should enable ease of access for operation and testing. The unit should be mounted using the 4 off fixing holes which will accept up to M5 sized fixings. They should only be fixed to services that can carry the weight of the unit.

To gain access to the mounting holes in the base the front cover must be removed. See Section 7.

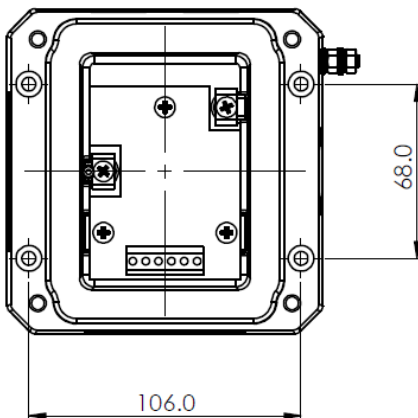


Fig. 1 View of base unit showing fixing centres (in mm).

8) Access to the Flameproof Enclosure



Warning – High voltage may be present, risk of electric shock. DO NOT open when energised, disconnect power before opening.



Warning – Hot surfaces. External surfaces and internal components may be hot after operation, take care when handling the equipment.

To access the Ex d chamber, remove the four off M6 x 25 hexagon socket head screws and withdraw the flameproof cover taking extreme care not to damage the flameproof joints in the process. M6 cover screws are Class A4-70 stainless steel and only screws of this category can be used for the enclosure.

Once the screws are removed the cover will hang down out of the way to gain access to the terminals, the internal earth terminal and mounting hole recesses.

On completion of the installation, the flameproof joints should be inspected to ensure that they are clean and that they have not been damaged during installation. Flamepaths are not intended to be repaired.

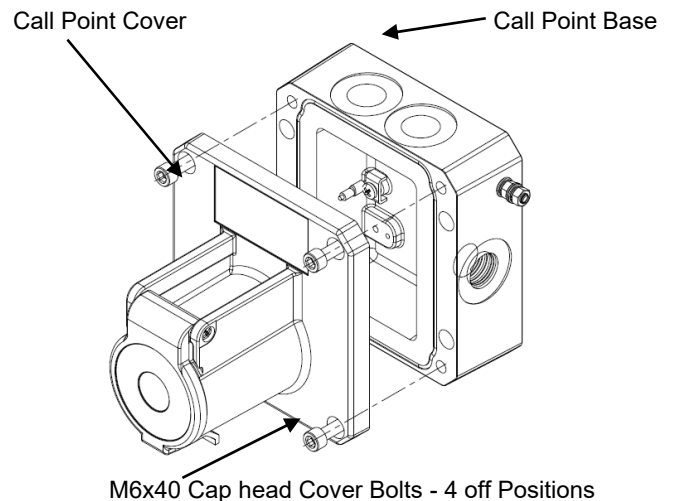


Fig. 2 Accessing the Explosion proof Enclosure. Check that the earth bonding wire between the two castings is secure and the 'O' ring seal is in place. When replacing the flameproof cover casting ensure that it is square with the flameproof chamber casting before inserting.

Carefully place the cover on the base. Only after the cover is fully in place should the four M6 Stainless Steel A4-70 cover bolts and their spring washer be tightened down (tightening torque 3.5Nm), ensuring no gap is visible between the cover and base of the enclosure. Never use the cover bolts to force the cover into position.

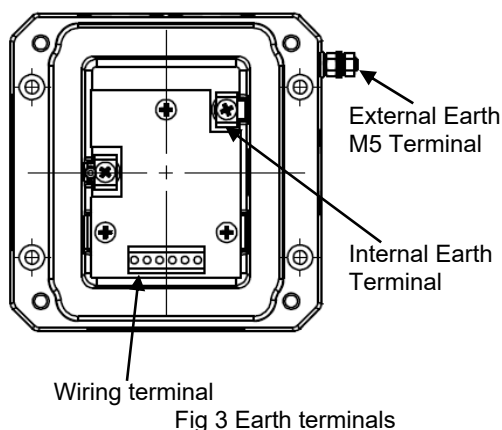
9) Earthing

The units are provided with internal and external earth terminals which are mounted in the base of the unit.

Internal earthing connections should be made to the Internal Earth terminal in the base of the housing using a ring crimp terminal to secure the earth conductor under the earth clamp. The earth conductor should be at least equal in size and rating to the incoming power conductors.

When using the internal earth terminal ensure that the stainless steel M4 flat washer is between the incoming earth wire and the enclosure.

External earthing connections should be made to the M5 earth stud, using a ring crimp terminal to secure the earth conductor to the earth stud. The external earth conductor should be at least 4mm² in size.



10) Power Supply Selection

Electrical Ratings

See table 1

250Vac max. / 5.0A max (3.33A max NEC/CEC)

48Vdc max. / 1.0A max

24Vdc max / 3.0A max

48Vdc max / 20mA (LED -C option with no ballast resistor)

11) Selection of Cable, Cable Glands, Blanking Elements & Adapters

ATEX/IECEX & UKEx Installations:

The equipment must only be installed by suitably qualified personnel in accordance with the latest issues of the relevant standards:

EN60079-14 / IEC60079-14: Explosive atmospheres - Electrical installations design, selection and erection
EN60079-10-1 / IEC60079-10-1: Explosive atmospheres - Classification of areas. Explosive gas atmospheres

The installation of the units must also be in accordance with any local codes that may apply and should only be carried out by a competent electrical engineer who has the necessary training.

The equipment must not be installed with any obstruction to the flanged flameproof joint any closer than permitted as per EN/IEC60079-14, table 13.

For high ambient temperatures the cable entry temperature may exceed +70°C or the cable branching point temperature may exceed 80°C and therefore suitable heat resisting cables

and cable glands must be used, with a rated service temperature of at least the values stated below:

For Single Switch models STExCP8-PT-S / STExCP8-PM-S / STExCP8-PB-S:

Max. ambient temperature °C	55	60	65	70
req. Cable / Cable Gland rating: °C	80	85	90	95

For Dual Switch models STExCP8-PT-D / STExCP8-PM-D / STExCP8-PB-D:

Max. ambient temperature °C	45	50	55	60	65	70
req. Cable / Cable Gland rating: °C	80	85	90	95	100	105

The cable gland entries have an M20 x 1.5 entry thread. Only suitably rated and ATEX / IECEX or UKEX certified cable glands which must be suitable for the type of cable being used and also meet the requirements of the current Ex 'd' flameproof installation standards EN 60079-14 / IEC60079-14.

When only one cable entry is used the other entries must be closed with suitably rated and ATEX / IECEX / UKEX certified blanking plugs that meet the requirements of the current Ex 'db' flameproof installation standards EN 60079-14 / IEC60079-14 (tightening torque 10Nm).

NEC / CEC Installations:

The equipment must only be installed by suitably qualified personnel in accordance with the latest issues of the relevant standards:

The installation of the units must also be in accordance with any local codes that may apply and should only be carried out by a competent electrical engineer who has the necessary training.

The equipment must not be installed with any obstruction to the flanged flameproof joint any closer than permitted as per the NEC/CEC.

For high ambient temperatures the cable entry temperature may exceed +60°C or the cable branching point temperature may exceed 60°C and therefore suitable heat resisting cables and cable glands must be used, with a rated service temperature of at least the values stated below:

For Single Switch model STExCP8-PB-S:

Max. ambient temperature °C	40	45	50	55	60
req. Cable / Cable Gland rating: °C	65	70	75	80	85

For Dual Switch model STExCP8-PB-D:

Max. ambient temperature °C	30	35	40	45	50	55	60
req. Cable / Cable Gland rating: °C	65	70	75	80	85	90	95

For use in Class I Division II locations, in order to maintain the db type protection, flameproof conduit seals and/or cable glands must be used.

The cable gland entries have an M20 x 1.5 entry thread. Only suitably rated and certified cable glands which must be suitable for the type of cable being used and also meet the requirements of the current Ex 'db' flameproof and NEC/CEC installation standards (tightening torque 10Nm).

When only one cable entry is used the other entries must be closed with suitably rated and certified blanking plugs that meet the requirements of the current Ex 'db' and Ex 'tb' flameproof and NEC/CEC installation standards (tightening torque 10Nm).

All Installations:

To access the Ex d chamber, remove the four off M6 x 60 stainless steel A4-70 Cap Head cover bolts.

If the installation is made using conduit, openings must have a sealing fitting connected as close as practical to the wall of the enclosure, but in no case more than the size of the conduit or 2" of enclosure, whichever is the lesser.

If a high IP (Ingress Protection) rating is required then a suitable sealing washer must be fitted under the cable glands or blanking plugs.

The STExCP8 Call Point range can be supplied with the following types of adapters:

M20 to ½" NPT
M20 to ¾" NPT
M20 to M25

It is important to note that stopping plugs cannot be fitted onto adapters, only directly onto the M20 entries.

Any other adapters used must be suitably rated and ATEX / IECEx / UKEx or NEC/CEC certified adapters.

12) Cable & Wiring Connections

The units come with two options.

A DIN rail version which has 8-way connection and allows for limited wiring of EOL devices by customer, or, full pre-wired configurations if outlined with order to E2S.

For full wiring details see wiring diagrams D202-06-211

The PCB Terminal Version has a 6-way connector but is designed to allow for full customer configuration with Series and EOL devices in a number of wiring configurations. E2S can also configure unit at time of order to E2S

For full wiring details see wiring diagrams D202-06-212

For EOL and Series device limitations and configurations see Section 13. Fitting can be requested by E2S at the order stage or added to the correct terminal blocks afterward. All devices must comply with the requirements stipulated in section 15.

Electrical Connections are to be made into the terminal blocks using solid or stranded wire.

Wires having a cross sectional area between 0.5 mm² to 2.5mm² (AWG 20 – 14) can be connected to each terminal way.

In most configuration an input and output wire can be fitted to individual terminals, where these are more complex and if fitting 2-off wires to one terminal way, the sum of the 2-off wires must be a maximum cross sectional area of 2.5mm².

Strip wires to 8mm. Wires may also be fitted using ferrules.

DIN Rail Terminals: 0.51 Nm / 4.5 Lb-in;
Connector Block Terminals: 0.87 Nm / 7.7 Lb-in;

PCBA Main Terminals: 0.45 Nm / 4.0 Lb-in;
PCBA EOL and Series (1 & 2) Terminals: 0.38 Nm / 3.4 Lb-in

When connecting wires to the terminals great care should be taken to dress the wires so that when the cover is inserted into the chamber the wires do not exert excess pressure on the terminal blocks. This is particularly important when using cables with large cross-sectional areas such as 2.5mm².

13) Testing unit operation

The push button types -PB -PT and -PM are all operated by pressing in the main plunger down activating the switch.

The -PB plunger needs to be firstly twisted by 90 degrees clockwise to position shown and then pressed in.

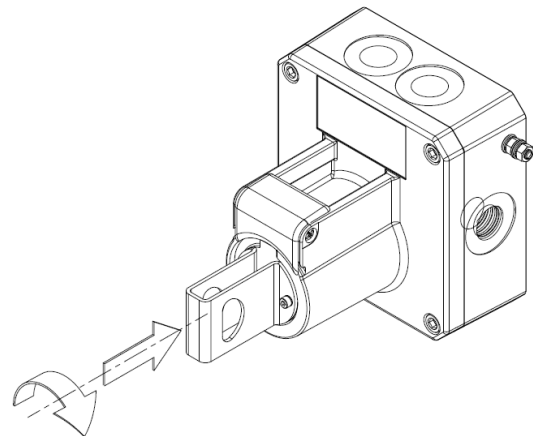


Fig 6 -PB Version Twist and Push Action

The -PM and -PT need to have the protective flip lid opened first and then the main plunger pressed in.

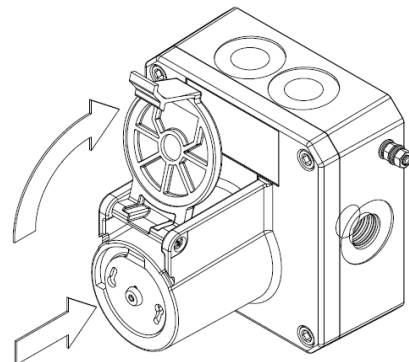
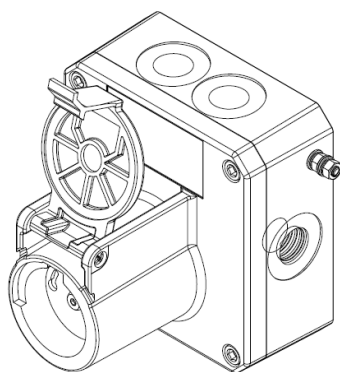


Fig 7 -PT & -PM Versions Push Action

On -PM versions the operation is momentary and as such the plunger will reset automatically once the pressure on the plunger is released.



On -PB the plunger will remain in the down position until the unit is reset. This is done by pulling the plunger back up to the start position shown in fig 6. Then the plunger is twisted back 90 degrees anti-clockwise to the stop.

On -PT the plunger will remain in the down position until the unit is reset. This is done by lifting the plunger back up using the tool reset key provided.

14) End-of-Line and Series Devices

All models can be fitted with series resistors, end-of-line monitoring resistors, monitoring diodes and zener diodes if supplied with direct current up to 48Vdc.

Min. resistor values and current limitations must be observed depending on supply voltage and type of components fitted. If a combination of resistors / diodes / zener diodes is used, values for all components must be observed and lowest current limit for either component becomes overall limit. Current limitation for units fitted with end-of-line resistors, diodes or zener diodes must be ensured by using a current limited power supply or fitting a current limiting resistor at the control panel (not provided).

The following table 2 shows limitations for all possible variations:

Table 2 : EOL and Series Devices limits

Type of component fitted	Supply voltage 24Vdc		Supply voltage 48Vdc	
	value	Max. current (mA)	value	Max. current
End-of-Line Resistor *See note	min. 470R/ 2W or min. 2k2 / 0.5W	3000	min. 2k2 / 2W or min. 8k2 / 0.5W	1000
End-of-Line Diode Type 1N5401	2W	59.13	2W	25.26
Series Resistor *See note	min. 470R/ 2W or min. 2k2 / 0.5W	3000	min. 2k2 / 2W or min. 8k2 / 0.5W	1000
Series Diode Type 1N5401	2W	59.13	2W	25.26
Series Zener Diode Type 1N5333B	3.3V	230	3.3V	230
	4.7V	162	4.7V	162
	5.1V	149	5.1V	149
	5.6V	136	5.6V	136
	6.2V	122	6.2V	122
	6.8V	112	6.8V	112
	10V	76	10V	76
	12V	63	12V	63

The following table 1 shows limitations for all possible variations:

* note :- EOL and series resistor values are listed as the minimum resistor value allowable at the specified minimum wattage.

EOL (End of line) device;

- resistor – ExxxR
- diode – ED1
- zener – ExxxZ

Series (In line) device;

- resistor – SxxxR
- diode – SD1
- zener – SxxxZ
- LED

Microswitch 1 = M/S 1

Microswitch 2 = M/S 2

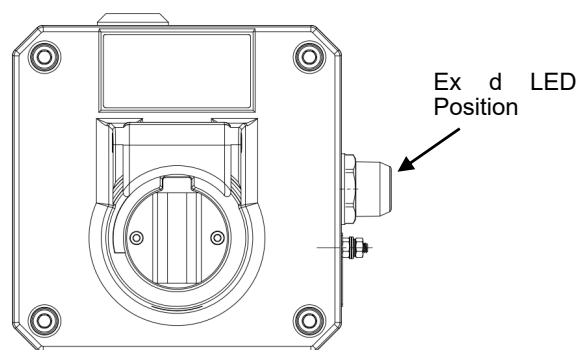
The unit can be wired with a maximum of 4 module devices – see wiring diagrams.

Note:- The maximum voltage stated must not be exceeded, as the internal resistor modules are rated as compliant with Ex d according to the units voltage

An optional Ex d LED monitoring module is designated after the model no. as either, STExCP8-P*-S-L or STExCP8- P*-D-L to include an LED and power limiting resistor or, STExCP8-P*-S-C or STExCP8-P*-D-C with includes the LED but where the units current must be limited to 20mA. As the LED has no power limiting resistor.

The optional Ex d LED monitoring module is fitted in the M20 side entry as shown, when the main M20 entries are at the bottom of unit.

The wiring is shown as per wiring diagrams D202-06-211 or D202-06-212 see the various LED configuration options.



15) Maintenance, Overhaul & Repair

Maintenance, repair and overhaul of the equipment should only be carried out by suitably qualified personnel in accordance with the current relevant standards:

For ATEX / IECEx / UKEx

EN 60079-19 Explosive atmospheres – Equipment
IEC 60079-19 repair, overhaul and reclamation

EN 60079-17 Explosive atmospheres – Electrical
IEC 60079-17 installations inspections and maintenance

Units must not be opened while an explosive atmosphere is present.

Electrostatic charging hazard – clean only with a damp cloth.

For US & CEC Class / Div / Zone

UL 60079-19 Explosive atmospheres - Equipment repair, overhaul and reclamation

UL 60079-17 Explosive atmospheres - Electrical
installations inspection and maintenance

16) SIL 2 Reliability Data

Reliability and Functional safety IEC/EN61508 which has been assessed and is considered suitable for use in low demand safety function:

- Random Hardware Failures and Systematic Failures (route 2H)
- As an unvoted item (i.e. hardware fault tolerance of 0) at SIL 2

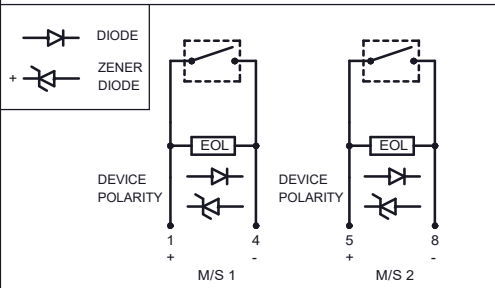
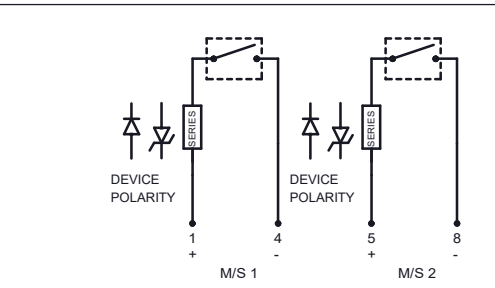
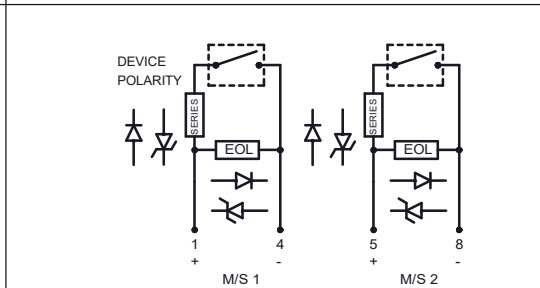
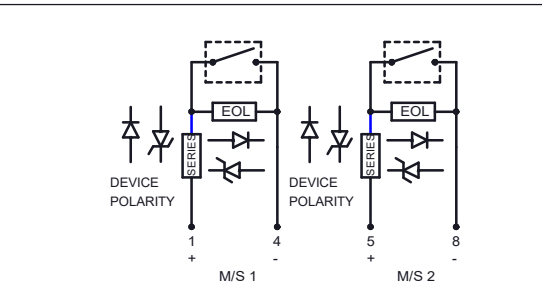
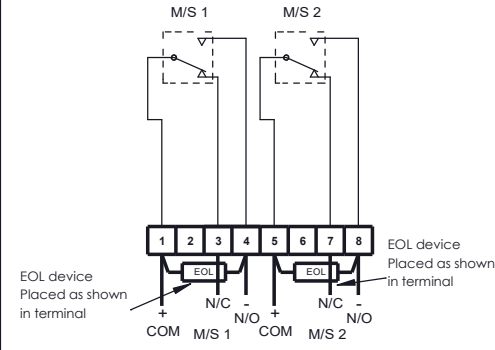
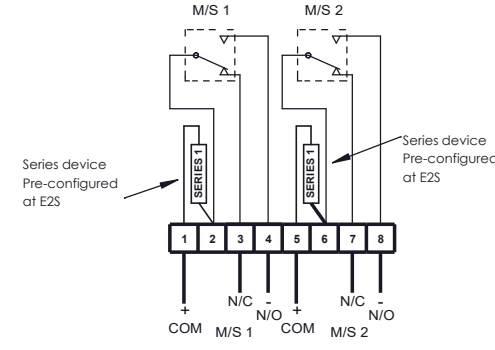
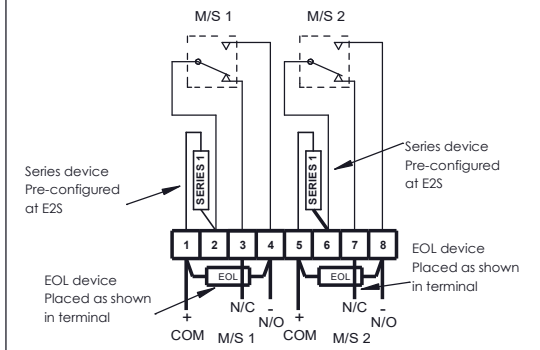
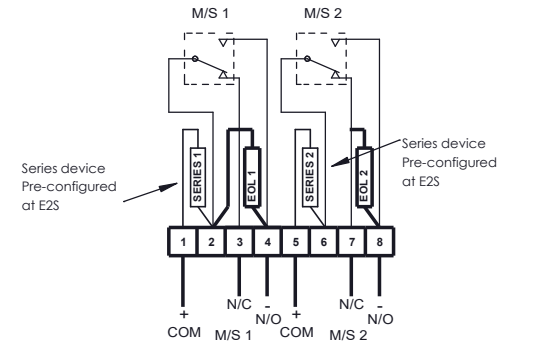
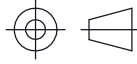
The product was assessed against failure modes:

- Failure to close a contact when the call point is struck with specified force
- Failure to open a contact when the call point is struck with specified force
- Spurious output despite no input

Integrity in respect of failure to close	SIL 2
System Type	A
Hardware Fault Tolerance	0
Safe Failure Fraction (credible claim)	75%
PFD (hazardous failure)	2.3×10^{-3}
Proof Test Interval	Up to 1 year

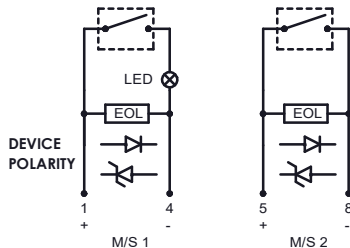
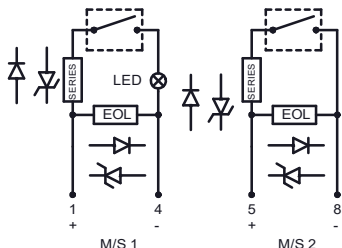
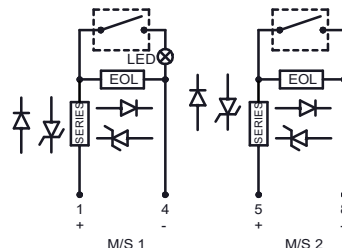
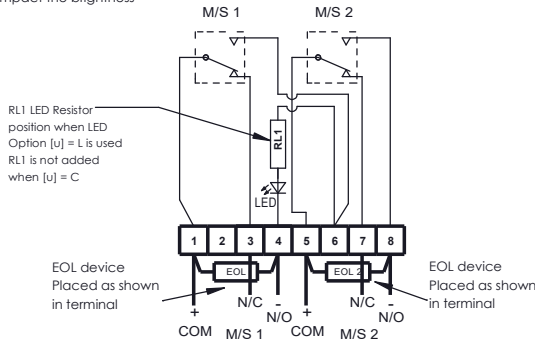
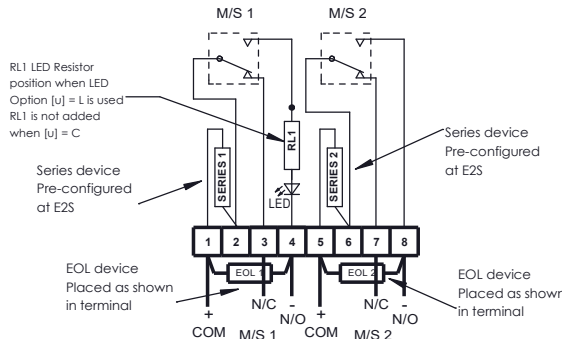
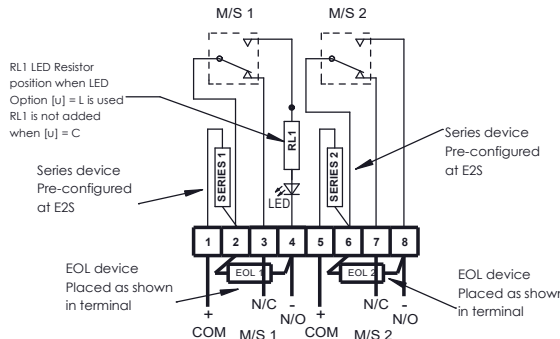
	1	2	3	4	5	6	7	8	9	10			
	SINGLE MICROSWITCH DEVICES			SHEET 1									
A	Diagram Dual Switch Wiring Configurations LED Indicator Wiring Configurations Parallel Dual Switch Wiring Configurations		Sheet 2,3,5,6,7,8 4,5,6,8 7, 8	GNEXP7-BG[s][t][l][i][e][m][d][v][o][x][u]-[e][s]		LED Indicator [u]		Module Device Codes					
				Switch Type [s]		Product Version [v]		Resistor		ISSUE			
				Terminals [t]		Product Option [o]		Diode		MOD No.			
						EOL Module [e]		Zener Diode		REASON - INITIAL - DATE			
								LED		7	ACN0178	Correction to LED wiring in option W RNP 15-04-2025	
										8	ACN0187	LED put on N/C side of circuit, note on LED LD1 detailed RNP 28-05-2025	
	SINGLE SWITCH		CONFIG. D1-1	SINGLE SWITCH WITH SERIES DEVICE		CONFIG. D1-2	SINGLE SWITCH WITH EOL & SERIES DEVICES		CONFIG. D1-3	SINGLE SWITCH WITH EOL & ALT. SERIES DEVICES		CONFIG. D1-4	
B	SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u]		[S] [D] [1] [N]	Single DIN Rail Default NO LED		Single DIN Rail Default NO LED Series Device	SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULES [e][s]		[S] [D] [1] [N] [Exxxx][Sxxxx]	Single DIN Rail Default NO LED EOL + Series		Single DIN Rail Alt. EOL Pos'n. NO LED EOL + Series	
C	Note :- Use when EOL and/or series devices are fitted during installation, or if no series devices are required.		M/S 1	+ DIODE + ZENER DIODE		M/S 1	DEVICE POLARITY M/S 1		M/S 1	DEVICE POLARITY M/S 1		M/S 1	
D	Default Link Wire in Terminal		Circuit shown in Unoperated condition	Default Link wire replaced by Series device in terminal		Circuit shown in Unoperated condition	Default Link wire replaced by Optional Series device in terminal Optional EOL device Placed as shown in terminal		M/S 1	Default Link wire replaced by Series device in terminal Optional EOL device Placed as shown in terminal		M/S 1	
E	Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed			Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed			Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed			Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed			
F	Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open			Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open			Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open			Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open			
G	DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS		DRAWN R.S.RAIT DATE 05-03-2020	SURFACE FINISH	WEIGHT (Kg)	THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT.		 EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM		ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE			A3
	STANDARDS GNEXP7 ; STEXP8 ; WP7 units with DIN Rail		CHECKED B.ISARD DATE 05-03-2020	MATERIAL						TITLE GNEXP7 ; STEXP8 ; WP7 CALL POINT WIRING / CIRCUIT OPERATION DIAGRAM			
			APPROVED R.N.POTTS DATE 05-03-2020	ALTERNATIVE MATERIAL		(C) EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE				SCALE NTS		SHEET 1 OF 8	DRAWING NUMBER D202-06-211

1		2		3		4		5		6		7		8		9		10					
DUAL MICROSWITCH DEVICES						SHEET 2						Module Device Codes		ISSUE		MOD No.		REASON - INITIAL - DATE					
Notes: 1. Other configurations of dual switch units are possible. Contact E2S sales to discuss options.						GNEXCP7-BG[s][t][l][e][m][d][v][o][x][u]-[e][s]		LED Indicator [u]		Series		Resistor		EOL		EOL		Series					
												Diode		ED1		SD1							
												Zener Diode		ExxxZ		SxxxZ							
												LED		N/A		L or C							
DUAL SWITCH WITH EOL DEVICE		CONFIG. D2-1		DUAL SWITCH WITH SERIES DEVICES		CONFIG. D2-2		DUAL SWITCH WITH EOL & SERIES DEVICES		CONFIG. D2-3		DUAL SWITCH WITH EOL & SERIES DEVICES		CONFIG. D2-4									
SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u]		[D] [D] [1] [N]		Dual DIN Rail Default NO LED		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] SERIES MODULE [s]		[D] [D] [1] [N] [Sxxxx]		Dual DIN Rail Only Default NO LED Series Device		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULES [e][s]		[D] [D] [1] [N] [Exxxx][Sxxxx]		Dual DIN Rail Only Default NO LED EOL + Series		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULES [e][s]		[D] [D] [W] [N] [Exxxx][Sxxxx]		Dual DIN Rail Only Alt. EOL Pos'n. NO LED EOL + Series	
Note :- Use when EOL and/or series devices are fitted during installation, or if no series devices are required.																							
Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition					
Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed					
Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed		Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed		Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed		Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed		Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed		Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed		Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed		Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed		Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed		Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed					
DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS		DRAWN D.HOWGILL DATE 05-03-2020		SURFACE FINISH WEIGHT (Kg)		MATERIAL		ALTERNATIVE MATERIAL		THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT. EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE		E2S warning signals EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM		ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE				A3					
STANDARDS GNEXCP7 ; STExCP8 ; WP7 units with DIN Rail		CHECKED R.N.POTTS DATE 05-03-2020												TITLE GNEXCP7 ; STExCP8 ; WP7 CALL POINT WIRING / CIRCUIT OPERATION DIAGRAM									
		APPROVED R.N.POTTS DATE 05-03-2020												SCALE NTS		SHEET 2 OF 8		DRAWING NUMBER D202-06-211					

1		2		3		4		5		6		7		8		9		10									
DUAL MICROSWITCH DEVICES DUPLICATED						SHEET 3		LED Indicator [u]		Module Device Codes		ISSUE		MOD No.		REASON - INITIAL - DATE											
Notes: 1. Other configurations of dual switch units are possible. Contact E2S sales to discuss options.						GNEXCP7-BG[s][t][i][e][m][d][v][o][x][u]-[e][s]		LED Indicator [u]		Resistor		EOL		Series		7		ACN0178		Correction to LED wiring in option W RNP 15-04-2025							
						Switch Type [s]		Product Version [v]		Product Option [o]		Diode		ED1		SD1		8		ACN0187		LED put on N/C side of circuit, note on LED LD1 detailed RNP 28-05-2025					
						Terminals [t]						Zener Diode		ExxxZ		SxxxZ											
												LED		N/A		L or C											
DUAL SWITCH WITH EOL DEVICES DUPLICATED				CONFIG. D3-1		DUAL SWITCH WITH SERIES DEVICES DUPLICATED				CONFIG. D3-2		DUAL SWITCH WITH EOL & SERIES DEVICES DUPLICATED				CONFIG. D3-3		DUAL SWITCH WITH EOL & SERIES DEVICES DUPLICATED				CONFIG. D3-4					
SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] EOL MODULE [e]				[D] [D] [2] [N] [Exxxx] Dual DIN Rail Duplicated NO LED EOL Device		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] SERIES MODULE [s]				[D] [D] [2] [N] [Sxxxx] Dual DIN Rail Only Duplicated NO LED Series Device		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULES [e][s]				[D] [D] [2] [N] [Exxxx][Sxxxx] Dual DIN Rail Only Duplicated NO LED EOL + Series		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULES [e][s]				[D] [D] [Y] [N] [Exxxx][Sxxxx] Dual DIN Rail Only Alt. EOL Pos'n. DUP. NO LED EOL + Series					
																											
																											
Circuit shown in Unoperated condition				Circuit shown in Unoperated condition		Circuit shown in Unoperated condition				Circuit shown in Unoperated condition		Circuit shown in Unoperated condition				Circuit shown in Unoperated condition		Circuit shown in Unoperated condition									
Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed				Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed				Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed				Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed									
Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed				Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed		Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed				Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed		Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed				Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed		Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed									
DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS				DRAWN D.HOWGILL 05-03-2020		SURFACE FINISH		WEIGHT (Kg)		THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT. EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE				 EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM		ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE				A3							
STANDARDS GNExCP7 ; STExCP8 ; WP7 units with DIN Rail				CHECKED R.N.POTTS 05-03-2020		MATERIAL		TITLE GNExCP7 ; STExCP8 ; WP7 CALL POINT WIRING / CIRCUIT OPERATION DIAGRAM								SCALE NTS		SHEET 3 OF 8		DRAWING NUMBER D202-06-211							
				APPROVED R.N.POTTS 05-03-2020		ALTERNATIVE MATERIAL																					

1		2		3		4		5		6		7		8		9		10											
SINGLE MICROSWITCH LED DEVICES						SHEET 4						Module Device Codes		ISSUE	MOD No.	REASON - INITIAL - DATE													
						GNEXCP7-BG[s][t][l][e][m][d][v][o][x][u]-[e][s]						EOL		Series	7	ACN0178	Correction to LED wiring in option W RNP 15-04-2025												
						Switch Type [s] Terminals [t]						Resistor		ExxxR	SxxxR	8	ACN0187	LED put on N/C side of circuit, note on LED LD1 detailed RNP 28-05-2025											
						Product Version [v]						Diode		ED1	SD1														
						Product Option [o]						Zener Diode		ExxxZ	SxxxZ														
						LED Indicator [u]						LED		N/A	L or C														
						EOL Module [e]																							
SINGLE SWITCH WITH LED ONLY				CONFIG. D4-1		SINGLE SWITCH WITH LED & EOL DEVICE				CONFIG. D4-2		SINGLE SWITCH WITH LED EOL & SERIES DEVICES				CONFIG. D4-3		SINGLE SWITCH WITH LED, EOL & ALT. SERIES DEVICE				CONFIG. D4-4							
SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u]				[S] [D] [1] [L] Single DIN Rail Default LED with RL1		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] SERIES MODULE [e]				[S] [D] [1] [L] [Exxxx] Single DIN Rail Default LED with RL1 EOL Device		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] EOL MODULE [e][s]				[S] [D] [1] [L] [Exxxx][Sxxx] Single DIN Rail Default LED with RL1 EOL + Series Device		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULES [e][s]				[S] [D] [W] [L] [Exxxx][Sxxx] Single DIN Rail Alt. EOL Pos'n. LED with RL1 EOL + Series Device							
Notes - For all LED Options: 1) The LED is configured as LED indicator option 'C' for this version the LED must be protected by a series resistor of a minimum value of 1.5K Ohm or by limiting the systems current to 20mA max 2) Units have the option to add the LED current-limiting resistor RL1 LED indicator option 'L' which is 1.5K Ohms. 3) Note that in both cases the total value of the series resistors and if fitted RL1 will impact the brightness of the LED.																													
Circuit shown in Unoperated condition Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open						Circuit shown in Unoperated condition Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open						Circuit shown in Unoperated condition Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open						Circuit shown in Unoperated condition Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open											
DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS				DRAWN DATE D.HOWGILL 05-03-2020		SURFACE FINISH WEIGHT (Kg)		MATERIAL				ALTERNATIVE MATERIAL				THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT. EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE				 EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM				ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE A3					
STANDARDS GNExCP7 ; STExCP8 ; WP7 units with DIN Rail				CHECKED DATE R.N.POTTS 05-03-2020		APPROVED DATE R.N.POTTS 05-03-2020		TITLE GNExCP7 ; STExCP8 ; WP7 CALL POINT WIRING / CIRCUIT OPERATION DIAGRAM				SCALE SHEET DRAWING NUMBER NTS 4 OF 8 D202-06-211																	

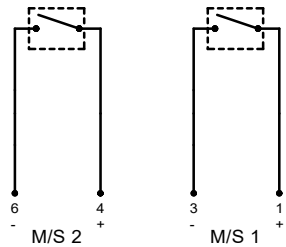
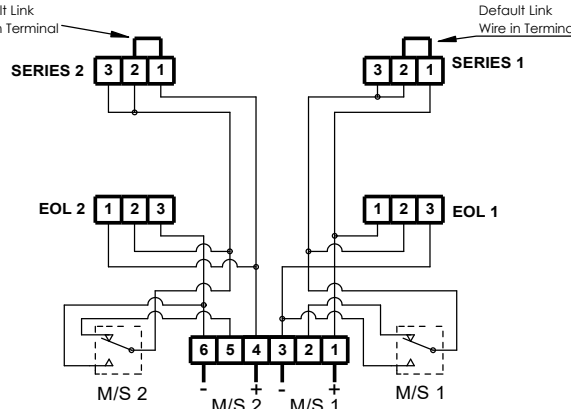
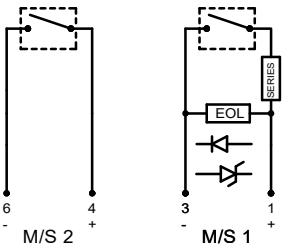
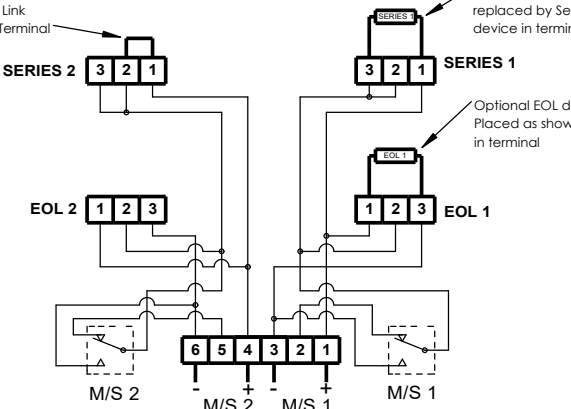
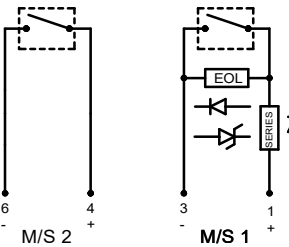
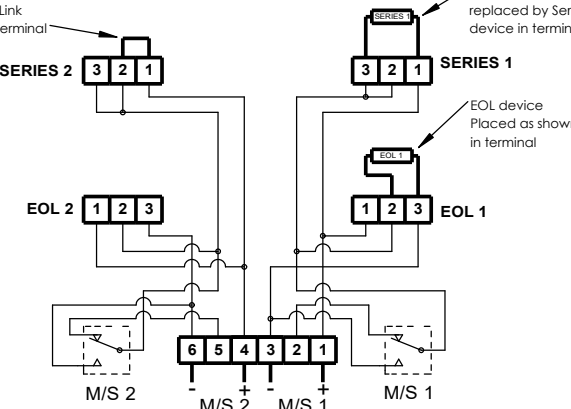
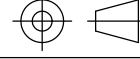
1		2		3		4		5		6		7		8		9		10								
DUAL MICROSWITCH LED DEVICES						SHEET 5						Module Device Codes			ISSUE		MOD No.		REASON - INITIAL - DATE							
GNEXCP7-BG[s][t][l][e][m][d][v][o][x][u]-[e][s]											LED Indicator [u]			7		ACN0178		Correction to LED wiring in option W RNP 15-04-2025								
Switch Type [s] Terminals [t]											Product Version [v]			Product Option [o]			Series Module [s]			8		ACN0187		LED put on N/C side of circuit, note on LED LD1 detailed RNP 28-05-2025		
														EOL			ExxxR			SxxxR						
														Diode			ED1			SD1						
														Zener Diode			ExxxZ			SxxxZ						
														LED			N/A			L or C						
DUAL SWITCH WITH LED		CONFIG. D5-1		DUAL SWITCH WITH LED & EOL DEVICES				CONFIG. D5-2		DUAL SWITCH WITH LED EOL & SERIES DEVICES				CONFIG. D5-3		DUAL SWITCH WITH LED, EOL & ALT. SERIES DEVICE				CONFIG. D5-4						
SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u]		[D] Dual [D] DIN Rail Only [1] Default [L] LED with RL1		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] EOL MODULE [e]				[D] Dual [D] DIN Rail Only [1] Default [L] LED with RL1 [ExxxR] EOL Device		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] SERIES MODULE [s]				[D] Dual [D] DIN Rail Only [1] Default [L] LED with RL1 [Sxxxx] Series Device		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULES [e][s]				[D] Dual [D] DIN Rail Only [W] Alt. EOL Pos'n. [L] LED with RL1 [Exxxx][Sxxxx] EOL + Series						
Circuit shown in Unoperated condition				Circuit shown in Unoperated condition						Circuit shown in Unoperated condition						Circuit shown in Unoperated condition										
Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed				Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed						Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed						Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed										
Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed				Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed						Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed						Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed										
DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS		DRAWN D.HOWGILL DATE 05-03-2020		SURFACE FINISH		WEIGHT (Kg)		THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT.				EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE		@2S warning signals EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM		ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE				A3						
STANDARDS		CHECKED R.N.POTTS DATE 05-03-2020		MATERIAL		ALTERNATIVE MATERIAL		TITLE GNExCP7 ; STExCP8 ; WP7 CALL POINT WIRING / CIRCUIT OPERATION DIAGRAM				SCALE NTS		SHEET 5 OF 8		DRAWING NUMBER D202-06-211										
		APPROVED R.N.POTTS DATE 05-03-2020																								

1		2		3		4		5		6		7		8		9		10													
DUAL MICROSWITCH LED & DEVICES DUPLICATED						SHEET 6						Module Device Codes		ISSUE	MOD No.	REASON - INITIAL - DATE															
						GNEXCP7-BG[s][t][l][e][m][d][v][o][x][u]-[e][s]						EOL		Series	7	ACN0178	Correction to LED wiring in option W RNP 15-04-2025														
						Switch Type [s] Terminals [t] Product Version [v] Product Option [o] LED Indicator [u] Series Module [s] EOL Module [e]						Resistor		ExxxR	SxxxR	8	ACN0187	LED put on N/C side of circuit, note on LED LD1 detailed RNP 28-05-2025													
												Diode		ED1	SD1																
												Zener Diode		ExxxZ	SxxxZ																
												LED		N/A	L or C																
DUAL SWITCH WITH LED & EOL DEVICE						CONFIG. D6-1		DUAL SWITCH WITH LED & SERIES DEVICE						CONFIG. D6-2		DUAL SWITCH WITH LED, EOL & SERIES DEVICE						CONFIG. D6-3									
SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] EOL MODULE [e]						[D] [D] [2] [L] [ExxxR]		Dual DIN Rail Only Duplicated EOL LED with RL1 EOL Device						SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] SERIES MODULE [s]		[D] [D] [2] [L] [Sxxxx]		Dual DIN Rail Only Duplicated EOL / SERIES LED with RL1 Series Device						SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULES [e][s]		[D] [D] [Y] [L] [Exxxx][Sxxxx]		Dual DIN Rail Only Alt. EOL Pos'n. DUPLICATED LED with RL1 EOL + Series			
Notes - For all LED Options: 1) The LED is configured as LED indicator option 'C' for this version the LED must be protected by a series resistor of a minimum value of 1.5K Ohm or by limiting the systems current to 20mA max 2) Units have the option to add the LED current-limiting resistor RL1 LED indicator option 'L' which is 1.5K Ohms. 3) Note that in both cases the total value of the series resistors and if fitted RL1 will impact the brightness of the LED.																															
																															
Circuit shown in Unoperated condition								Circuit shown in Unoperated condition								Circuit shown in Unoperated condition															
Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed								Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed								Unoperated condition (Glass Intact / Standby Condition) Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 open Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 closed															
Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed								Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed								Operated condition (Glass Broken / Button pushed in) Terminals +(1) & -(3) M/S 1 & +(5) & -(7) M/S 2 open Terminals +(1) & -(4) M/S 1 & +(5) & -(8) M/S 2 closed															
DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS		DRAWN DATE D.HOWGILL 05-03-2020		SURFACE FINISH		WEIGHT (Kg)		THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT.						E2S warning signals		ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE						A3									
STANDARDS		CHECKED DATE R.N.POTTS 05-03-2020		MATERIAL		EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE						EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM		TITLE GNExCp7 ; STExCp8 ; WP7 CALL POINT WIRING / CIRCUIT OPERATION DIAGRAM																	
		APPROVED DATE R.N.POTTS 05-03-2020		ALTERNATIVE MATERIAL										SCALE NTS				SHEET 6 OF 8		DRAWING NUMBER D202-06-211											

1		2		3		4		5		6		7		8		9		10			
DUAL MICROSWITCHES IN PARALLEL						SHEET 7				LED Indicator [u]		Module Device Codes		ISSUE		MOD No.		REASON - INITIAL - DATE			
Notes: 1. Other configurations of dual switch units are possible. Contact E2S sales to discuss options.						GNEXCP7-BG[s][t][l][e][m][d][v][o][x][u]-[e][s]				Resistor		EOL		7		ACN0178		Correction to LED wiring in option W RNP 15-04-2025			
										Diode		ED1		SD1		8		ACN0187		LED put on N/C side of circuit, note on LED LD1 detailed RNP 28-05-2025	
										Zener Diode		ExxxZ		SxxxZ							
										LED		N/A		L or C							
DUAL SWITCH WITH EOL DEVICE		CONFIG. D7-1		DUAL SWITCH WITH SERIES DEVICES		CONFIG. D7-2		DUAL SWITCH WITH EOL & SERIES DEVICE		CONFIG. D7-3		DUAL SWITCH WITH EOL & SERIES DEVICE		CONFIG. D7-4							
SWITCH TYPE [s]		[D]		Dual		SWITCH TYPE [s]		[D]		Dual		SWITCH TYPE [s]		[D]		Dual					
TERMINALS [t]		[D]		DIN Rail		TERMINALS [t]		[D]		DIN Rail		TERMINALS [t]		[D]		DIN Rail Only					
PRODUCT OPTION [o]		[P]		Parallel Wiring		PRODUCT OPTION [o]		[P]		Parallel Wiring		PRODUCT OPTION [o]		[V]		Alt. EOL Pos'n					
LED INDICATOR [u]		[N]		No LED		LED INDICATOR [u]		[N]		No LED		LED INDICATOR [u]		[N]		No LED					
				SERIES MODULE [s]		[Sxxxx]		Series Device		MODULE [e][s]		[Exxxx][Sxxxx]		EOL & Series Devices							
Default link Wire in terminal		COM		N/C		N/O		Default link wire replaced by Series device in terminal		COM		N/C		N/O		Default link wire replaced by Series device in terminal		COM			
M/S 1 & M/S 2		M/S 1 & M/S 2		M/S 1 & M/S 2		M/S 1 & M/S 2		M/S 1 & M/S 2		M/S 1 & M/S 2		M/S 1 & M/S 2		M/S 1 & M/S 2		M/S 1 & M/S 2		M/S 1 & M/S 2			
Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition		Circuit shown in Unoperated condition			
Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed		Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed			
Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open		Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open		Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open		Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open		Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open		Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open		Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open		Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open		Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open		Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open			
DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS		DRAWN D.HOWGILL 05-03-2020		SURFACE FINISH WEIGHT (Kg)		MATERIAL		THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT.		E2S warning signals		ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE		A3							
STANDARDS GNEXCP7 ; STExCP8 ; WP7 units with DIN Rail		CHECKED R.N.POTTS 05-03-2020		ALTERNATIVE MATERIAL		APPROVED R.N.POTTS 05-03-2020		EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE		EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM		TITLE GNEXCP7 ; STExCP8 ; WP7 CALL POINT WIRING / CIRCUIT OPERATION DIAGRAM		SCALE NTS		SHEET 7 OF 8		DRAWING NUMBER D202-06-211			

1		2		3		4		5		6		7		8		9		10											
DUAL MICROSWITCHES IN PARALLEL, LED & DEVICES						SHEET 8						Module Device Codes		ISSUE		MOD No.		REASON - INITIAL - DATE											
						GNEXCP7-BG[s][t][l][e][m][d][v][o][x][u]-[e][s]						LED Indicator [u]		7		ACN0178		Correction to LED wiring in option W RNP 15-04-2025											
						Switch Type [s]						Product Version [v]		Product Option [o]		Series Module [s]		8		ACN0187		LED put on N/C side of circuit, note on LED LD1 detailed RNP 28-05-2025							
						Terminals [t]						EOL Module [e]		Resistor		EOL		Series											
														Diode		ED1		SD1											
														Zener Diode		ExxxZ		SxxxZ											
														LED		N/A		L or C											
DUAL SWITCH WITH LED				CONFIG. D8-1		DUAL SWITCH WITH LED & EOL DEVICE				CONFIG. D8-2		DUAL SWITCH WITH EOL & SERIES DEVICE				CONFIG. D8-3		DUAL SWITCH WITH EOL & SERIES DEVICE				CONFIG. D8-4							
SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u]				[D] [D] [P] [L] Dual DIN Rail Parallel Wiring LED with RL1		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] EOL MODULE [e]				[D] [D] [P] [L] [Exxxx] Dual DIN Rail Parallel Wiring LED with RL1 EOL Device		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULE [e][s]				[D] [D] [P] [L] [Exxxx][Sxxxx] Dual DIN Rail Only Parallel Wiring LED with RL1 EOL + Series		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULE [e][s]				[D] [D] [V] [L] [Exxxx][Sxxxx] Dual DIN Rail Only Parallel Wiring Alt. EOL LED with RL1 EOL + Series							
Notes - For all LED Options: 1) The LED is configured as LED indicator option 'C' for this version the LED must be protected by a series resistor of a minimum value of 1.5K Ohm or by limiting the systems current to 20mA max 2) Units have the option to add the LED current-limiting resistor RL1 LED indicator option 'L' which is 1.5K Ohms. 3) Note that in both cases the total value of the series resistors and if fitted RL1 will impact the brightness of the LED.																													
Circuit shown in Unoperated condition Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open						Circuit shown in Unoperated condition Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open						Circuit shown in Unoperated condition Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open						Circuit shown in Unoperated condition Unoperated condition (Glass Intact / Standby Condition) Terminals +(4,5) & -(7,8) open Terminals +(4,5) & (6) closed Operated condition (Glass Broken / Button pushed in) Terminals +(4,5) & -(7,8) closed Terminals +(4,5) & (6) open											
DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS						DRAWN D.HOWGILL 05-03-2020		DATE		SURFACE FINISH		WEIGHT (Kg)		THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT.				e2S warning signals EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM		ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE				A3					
STANDARDS GNExCP7 ; STExCP8 ; WP7 units with DIN Rail						CHECKED R.N.POTTS 05-03-2020		DATE		MATERIAL				EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE				TITLE GNExCP7 ; STExCP8 ; WP7 CALL POINT WIRING / CIRCUIT OPERATION DIAGRAM											
						APPROVED R.N.POTTS 05-03-2020		DATE		ALTERNATIVE MATERIAL								SCALE NTS		SHEET 8 OF 8		DRAWING NUMBER D202-06-211							

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SINGLE MICROSWITCH DEVICES						SHEET 1							Module Device Codes			ISSUE		MOD No.		REASON - INITIAL - DATE																																																																																																																																																																																																																																																																																	
PRODUCTS: GNExCP7, STExCP8 & WP7		Diagram				Sheet		GNExCP7-BG[s][t][l][e][m][d][v][o][x]-[u][e][s]						LED Indicator [u]			Resistor		EOL		Series		1		ACN0127		Addition of LED version : Options clarified RNP 20-08-2023																																																																																																																																																																																																																																																																										
		Dual Switch Wiring Configurations				2,3,5,6,7,8		Switch Type [s]						Terminals [t]			Product Version [v]			Product Option [o]			EOL Module [e]			Diode		ED1		SD1		LED C and L version clarified : LED mounted in N/O position on switch RNP 04-04-2025																																																																																																																																																																																																																																																																					
		LED Indicator Wiring Configurations				4,5,6,8																	Zener Diode		ExxxZ		SxxxZ																																																																																																																																																																																																																																																																										
		Parallel Dual Switch Wiring Configurations				7,8																	LED		N/A		L or C																																																																																																																																																																																																																																																																										
SINGLE SWITCH				CONFIG. P1 -1		SINGLE SWITCH WITH SERIES DEVICE				CONFIG. P1-2		SINGLE SWITCH WITH EOL & SERIES DEVICES				CONFIG. P1-3		SINGLE SWITCH WITH EOL & ALT SERIES DEVICES				CONFIG. P1-4																																																																																																																																																																																																																																																																															
SWITCH TYPE [s]		[S]		Single		SWITCH TYPE [s]		[S]		Single		SWITCH TYPE [s]		[S]		Single		SWITCH TYPE [s]		[S]		Single																																																																																																																																																																																																																																																																															
TERMINALS [t]		[P]		PCB Version		TERMINALS [t]		[P]		PCB Version		TERMINALS [t]		[P]		PCB Version		TERMINALS [t]		[P]		PCB Version																																																																																																																																																																																																																																																																															
PRODUCT OPTION [o]		[1]		Default		PRODUCT OPTION [o]		[1]		Default		PRODUCT OPTION [o]		[1]		Default		PRODUCT OPTION [o]		[W]		Alt. EOL Pos'n.																																																																																																																																																																																																																																																																															
LED INDICATOR [u]		[N]		NO LED		LED INDICATOR [u]		[N]		NO LED		LED INDICATOR [u]		[N]		NO LED		LED INDICATOR [u]		[N]		NO LED																																																																																																																																																																																																																																																																															
						EOL MODULE [e]		[Exxxx]		EOL Device				[Exxxx][Sxxxx]		EOL + Series		MODULE [e][s]		[Exxxx][Sxxxx]		EOL + Series																																																																																																																																																																																																																																																																															
Note :- Use when EOL and/or series devices are fitted during installation, or if no series devices are required.																																																																																																																																																																																																																																																																																																					

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DUAL MICROSWITCH DEVICES						SHEET 2																					
Notes: 1. Other configurations of dual switch units are possible. Contact E2S sales to discuss options.						GNEXCP7-BG[s][t][l][i][e][m][d][v][o][x]-[u][e][s] Switch Type [s] Product Version [v] LED Indicator [u] Series Module [s] Terminals [t] Option [o] EOL Module [e]																					
Module Device Codes						ISSUE		MOD No.		REASON - INITIAL - DATE																	
Resistor						EOL		Series		1		ACN0127		INTRODUCTION RNP 20-08-2023													
Diode						ED1		SD1		2		ACN0178		LED C and L version clarified ; LED mounted in N/O position on switch RNP 04-04-2025													
Zener Diode						ExxxZ		SxxxZ																			
LED						N/A		L or C																			
DUAL SWITCH						CONFIG. P2-1		DUAL SWITCH WITH EOL & SERIES DEVICES						CONFIG. P2-2		DUAL SWITCH WITH EOL & ALT. SERIES DEVICES						CONFIG. P2-3					
SWITCH TYPE [s] [D] Dual PCB Version TERMINALS [t] [P] Default PRODUCT OPTION [o] [1] No LED LED INDICATOR [u] [N] NO LED						SWITCH TYPE [s] [D] Dual PCB Version TERMINALS [t] [P] Default PRODUCT OPTION [o] [1] No LED LED INDICATOR [u] [N] NO LED MODULES [e][s] [Exxxx][Sxxxx] EOL + Series						SWITCH TYPE [s] [D] Dual PCB Version TERMINALS [t] [P] Default PRODUCT OPTION [o] [W] Alt. EOL Pos'n. LED INDICATOR [u] [N] No LED MODULES [e][s] [Exxxx][Sxxxx] EOL + Series															
Note :- Use when EOL and/or series devices are fitted during installation, or if no series devices are required.  Default Link Wire in Terminal  Circuit as shown in Unoperated condition Unoperated Condition (Glass Intact / Standby Condition) Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 open Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 closed Operated Condition (Glass Broken / Button pushes in) Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 open Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 closed						 Default Link Wire in Terminal  Circuit as shown in Unoperated condition Unoperated Condition (Glass Intact / Standby Condition) Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 open Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 closed Operated Condition (Glass Broken / Button pushes in) Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 open Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 closed						 Default Link Wire in Terminal  Circuit as shown in Unoperated condition Unoperated Condition (Glass Intact / Standby Condition) Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 open Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 closed Operated Condition (Glass Broken / Button pushes in) Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 open Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 closed															
DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS						DRAWN R.N.POTTS 20-08-2023		DATE		SURFACE FINISH		WEIGHT (Kg)		THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT.						 warning signals EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM		ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE				A3	
STANDARDS GNEXCP7 ; STExCP8 ; WP7 units with PCB						CHECKED B.ISARD 20-08-2023		DATE		MATERIAL				EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE								TITLE GNEXCP7 ; STExCP8 ; WP7 CALL POINT WIRING / CIRCUIT OPERATION DIAGRAM					
						APPROVED R.N.POTTS 20-08-2023		DATE		ALTERNATIVE MATERIAL										SCALE NTS		SHEET 2 OF 8		DRAWING NUMBER D202-06-212			

1		2		3		4		5		6		7		8		9		10					
DUAL MICROSWITCH DEVICES DUPLICATED						SHEET 3				Module Device Codes				ISSUE		MOD No.		REASON - INITIAL - DATE					
Notes: 1. Other configurations of dual switch units are possible. Contact E2S sales to discuss options.						GNEXCP7-BG[s][t][l][e][m][d][v][o][x]-[u][e][s]				LED Indicator [u]				1		ACN0127		INTRODUCTION RNP 20-08-2023					
						Switch Type [s]		Terminals [t]		Product Version [v]		Product Option [o]		Module [s]		2		ACN0178		LED C and L version clarified ; LED mounted in N/O position on switch RNP 04-04-2025			
						LED Indicator [u]		Diode		Zener Diode		LED											
DUAL SWITCH WITH EOL & SERIES DEVICES DUPLICATED						CONFIG. P3-1		DUAL SWITCH WITH EOL & ALT. SERIES DEVICES DUPLICATED						CONFIG. P3-2									
SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULES [e][s]						Dual PCB Version Duplicate EOL/Series No LED EOL + Series		SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULES [e][s]						Dual PCB Version Alt. EOL Pos'n, duplicated No LED EOL + Series									
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SINGLE MICROSWITCH LED DEVICES								SHEET 4				GNEXCP7-BG[s][t][l][e][m][d][v][o][x][-][u][e][s] Switch Type [s] Terminals [t] Product Version [v] Product Option [o] LED Indicator [u] Series Module [s] EOL Module [e]		Module Device Codes		ISSUE		MOD No.		REASON - INITIAL - DATE	
Resistor		EOL		Series		1		ACN0127		Addition of LED version ; Options clarified RNP 20-08-2023											
Diode		ED1		SD1		2		ACN0178		LED C and L version clarified ; LED mounted in N/O position on switch RNP 04-04-2025											
Zener Diode		ExxxZ		SxxxZ		LED		N/A		L or C											
SINGLE SWITCH		CONFIG. P4 -1		SINGLE SWITCH WITH SERIES DEVICES		CONFIG. P4-2		SINGLE SWITCH WITH EOL & SERIES DEVICES		CONFIG. P4-3		SINGLE SWITCH WITH EOL & ALT SERIES DEVICES		CONFIG. P4-4							
SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u]		[S] [P] [1] [L] Single PCB Version Default LED with RL1		[S] [P] [1] [L] [Exxxx] Single PCB Version Default LED with RL1 EOL Device		[S] [P] [1] [L] [Exxxx][Sxxxx] Single PCB Version Default LED with RL1 EOL + Series		[S] [P] [1] [L] [Exxxx][Sxxxx] Single PCB Version Default LED with RL1 EOL + Series		[S] [P] [W] [L] [Exxxx][Sxxxx] Single PCB Version Alt. EOL Pos'n. LED with RL1 EOL + Series											
Notes - For all LED Options: 1) The LED is configured as LED indicator option 'C' for this version the LED must be protected by a series resistor of a minimum value of 1.5K Ohm or by limiting the systems current to 20mA max 2) Units have the option to add the LED current-limiting resistor RL1 LED indicator option 'L' which is 1.5K Ohms. 3) Note that in both cases the total value of the series resistors and if fitted RL1 will impact the brightness of the LED.																					

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DUAL MICROSWITCH LED DEVICES						SHEET 5						Module Device Codes		ISSUE	MOD No.	REASON - INITIAL - DATE																			
GNEXCP7-BG[s][t][l][e][m][d][v][o][x]-[u][e][s] Switch Type [s] Terminals [t] Product Version [v] Product Option [o] LED Indicator [u] Series Module [s] EOL Module [e]						Resistor		EOL		Series		1	ACN0127	INTRODUCTION RNP 20-08-2023																					
						Diode		ED1		SD1		2	ACN0178	LED C and L version clarified ; LED mounted in N/O position on switch RNP 04-04-2025																					
						Zener Diode		ExxxZ		SxxxZ																									
						LED		N/A		L or C																									
DUAL SWITCH WITH LED						CONFIG. P5-1						DUAL SWITCH WITH LED, EOL & SERIES DEVICES						CONFIG. P5-2						DUAL SWITCH WITH LED, EOL & ALT. SERIES DEVICES						CONFIG. P5-3					
SWITCH TYPE [s] [D] TERMINALS [t] [P] PRODUCT OPTION [o] [1] LED INDICATOR [u] [C] or [L] Dual PCB Version Default C = LED without RL1						SWITCH TYPE [s] [D] TERMINALS [t] [P] PRODUCT OPTION [o] [1] LED INDICATOR [u] [C] or [L] MODULES [e][s] [Exxxx][Sxxxx] Dual PCB Version Default C = LED without RL1 EOL + Series						SWITCH TYPE [s] [D] TERMINALS [t] [P] PRODUCT OPTION [o] [W] LED INDICATOR [u] [C] or [L] MODULES [e][s] [Exxxx][Sxxxx] Dual PCB Version Alt. EOL Pos'n. C = LED without RL1 EOL + Series																							
Notes - For all LED Options: 1) The LED is configured as LED indicator option 'C' for this version the LED must be protected by a series resistor of a minimum value of 1.5K Ohm or by limiting the systems current to 20mA max 2) Units have the option to add the LED current-limiting resistor RL1 LED indicator option 'L' which is 1.5K Ohms. 3) Note that in both cases the total value of the series resistors and if fitted RL1 will impact the brightness of the LED.																																			
Circuit as shown in Unoperated condition Unoperated Condition (Glass Intact / Standby Condition) Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 open Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 closed Operated Condition (Glass Broken / Button pushes in) Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 open Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 closed						Circuit as shown in Unoperated condition Unoperated Condition (Glass Intact / Standby Condition) Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 open Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 closed Operated Condition (Glass Broken / Button pushes in) Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 open Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 closed						Circuit as shown in Unoperated condition Unoperated Condition (Glass Intact / Standby Condition) Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 open Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 closed Operated Condition (Glass Broken / Button pushes in) Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 open Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 closed																							
DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS		DRAWN R.N.POTTS DATE 20-08-2023		SURFACE FINISH		WEIGHT (Kg)		THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT. EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE						warning signals EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM		ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE				A3															
STANDARDS GNExCP7 ; STExCP8 ; WP7 units with PCB		CHECKED B.ISARD DATE 20-08-2023		MATERIAL		TITLE GNExCP7 ; STExCP8 ; WP7 CALL POINT WIRING / CIRCUIT OPERATION DIAGRAM										SCALE NTS		SHEET 5 OF 8		DRAWING NUMBER D202-06-212															
		APPROVED R.N.POTTS DATE 20-08-2023		ALTERNATIVE MATERIAL																															

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DUAL MICROSWITCH LED & DEVICES DUPLICATED						SHEET 6						Module Device Codes		ISSUE		MOD No.		REASON - INITIAL - DATE							
GNEXCP7-BG[s][t][l][e][m][d][v][o][x][u][e][s] Switch Type [s] Terminals [t] Product Version [v] Product Option [o] EOL Module [e] Series Module [s] LED Indicator [u]						Resistor		ExxxR		SxxxR		1		ACN0127		INTRODUCTION RNP 20-08-2023									
						Diode		ED1		SD1		2		ACN0178		LED C and L version clarified ; LED mounted in N/O position on switch RNP 04-04-2025									
						Zener Diode		ExxxZ		SxxxZ															
						LED		N/A		L or C															
DUAL SWITCH WITH LED, EOL & SERIES DEVICES DUPLICATED						CONFIG. P6-1		DUAL SWITCH WITH LED, EOL & ALT. SERIES DEVICES DUPLICATED						CONFIG. P6-2											
SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULES [e][s]						[D] [P] [2] [C] or [L] [Exxxx][Sxxxx]		Dual PCB Version Duplicate EOL/Series C = LED without RL1 EOL + Series						SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULES [e][s]						[D] [P] [Y] [C] or [L] [Exxxx][Sxxxx]		Dual PCB Version Alt. EOL Pos'n duplicated C = LED without RL1 EOL + Series			
+ DIODE + ZENER DIODE Default Link wire replaced by Series device in terminal Optional EOL device Placed as shown in terminal Circuit as shown in Unoperated condition Unoperated Condition (Glass Intact / Standby Condition) Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 open Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 closed Operated Condition (Glass Broken / Button pushes in) Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 open Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 closed						Default Link wire replaced by Series device in terminal EOL device Placed as shown in terminal Circuit as shown in Unoperated condition Unoperated Condition (Glass Intact / Standby Condition) Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 open Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 closed Operated Condition (Glass Broken / Button pushes in) Terminals +(1) & (2) M/S 1 and +(4) & (5) M/S 2 open Terminals +(1) & -(3) M/S 1 and +(4) & -(6) M/S 2 closed						Notes - For all LED Options: 1) The LED is configured as LED indicator option 'C' for this version the LED must be protected by a series resistor of a minimum value of 1.5K Ohm or by limiting the systems current to 20mA max 2) Units have the option to add the LED current-limiting resistor RL1 LED indicator option 'L' which is 1.5K Ohms. 3) Note that in both cases the total value of the series resistors and if fitted RL1 will impact the brightness of the LED.													
DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS						DRAWN R.N.POTTS DATE 20-08-2023		SURFACE FINISH		WEIGHT (Kg)		THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT. EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE						warning signals EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM		ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE				A3	
STANDARDS GNExCp7 ; STExCP8 ; WP7 units with PCB						CHECKED B.ISARD DATE 20-08-2023		MATERIAL		TITLE GNExCp7 ; STExCP8 ; WP7 CALL POINT WIRING / CIRCUIT OPERATION DIAGRAM										SCALE NTS		SHEET 6 OF 8		DRAWING NUMBER D202-06-212	
APPROVED R.N.POTTS DATE 20-08-2023						ALTERNATIVE MATERIAL																			

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DUAL MICROSWITCH IN PARALLEL, & DEVICES				SHEET 7																							
GNEXCP7-BG[s][t][l][e][m][d][v][o][x]-[u][e][s]												LED Indicator [u]		Module Device Codes				ISSUE		MOD No.		REASON - INITIAL - DATE					
Switch Type [s] ↑ Terminals [t] ↑ Product Version [v] ↑ Product Option [o] ↑ LED Indicator [u] Series Module [s] EOL Module [e]														Resistor		EOL		Series		1		ACN0127		INTRODUCTION RNP 20-08-2023			
														Diode		ED1		SD1		2		ACN0178		LED C and L version clarified ; LED mounted in N/O position on switch RNP 04-04-2025			
														Zener Diode		ExxxZ		SxxxZ									
														LED		N/A		L or C									
DUAL SWITCH PARALLEL				CONFIG. P7-1				DUAL SWITCH, PARALLEL WITH EOL & SERIES DEVICES				CONFIG. P7-2				DUAL SWITCH, PARALLEL WITH EOL & ALT. SERIES DEVICES				CONFIG. P7-3							
SWITCH TYPE [s] [D] TERMINALS [t] [P] PRODUCT OPTION [o] [P] LED INDICATOR [u] [N]				Dual PCB Version Parallel Wiring No LED				SWITCH TYPE [s] [D] TERMINALS [t] [P] PRODUCT OPTION [o] [P] LED INDICATOR [u] [N] MODULES [e][s] [Exxxx][Sxxxx]				Dual PCB Version Parallel Wiring No LED EOL + Series				SWITCH TYPE [s] [D] TERMINALS [t] [P] PRODUCT OPTION [o] [V] LED INDICATOR [u] [N] MODULES [e][s] [Exxxx][Sxxxx]				Dual PCB Version Parallel Wiring Alt. EOL Pos'n. No LED EOL + Series							
Note :- Use when EOL and/or series devices are fitted during installation, or if no series devices are required.																											
Circuit as shown in Unoperated condition Unoperated Condition (Glass Intact / Standby Condition) Terminals +(1) & -(3) M/S 1 and M/S 2 open Terminals +(1) & (2) M/S 1 and M/S 2 closed Operated Condition (Glass Broken / Button pushes in) Terminals +(1) & (2) M/S 1 and M/S 2 open Terminals +(1) & -(3) M/S 1 and M/S 2 closed				Circuit as shown in Unoperated condition Unoperated Condition (Glass Intact / Standby Condition) Terminals +(1) & -(3) M/S 1 and M/S 2 open Terminals +(1) & (2) M/S 1 and M/S 2 closed Operated Condition (Glass Broken / Button pushes in) Terminals +(1) & (2) M/S 1 and M/S 2 open Terminals +(1) & -(3) M/S 1 and M/S 2 closed				Circuit as shown in Unoperated condition Unoperated Condition (Glass Intact / Standby Condition) Terminals +(1) & -(3) M/S 1 and M/S 2 open Terminals +(1) & (2) M/S 1 and M/S 2 closed Operated Condition (Glass Broken / Button pushes in) Terminals +(1) & (2) M/S 1 and M/S 2 open Terminals +(1) & -(3) M/S 1 and M/S 2 closed																			
DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 ANGULAR DIMENSIONAL TOLS				DRAWN R.N.POTTS DATE 20-08-2023				SURFACE FINISH WEIGHT (Kg)				THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT.				E2S warning signals EUROPEAN SAFETY SYSTEMS LTD IMPRESS HOUSE MANSELL ROAD ACTON LONDON W3 7QH WWW.E2S.COM				ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE				A3			
STANDARDS GNExCP7 ; STExCP8 ; WP7 units with PCB				CHECKED B.ISARD DATE 20-08-2023				MATERIAL				EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE				TITLE GNExCP7 ; STExCP8 ; WP7 CALL POINT WIRING / CIRCUIT OPERATION DIAGRAM				SCALE NTS SHEET 7 OF 8 DRAWING NUMBER D202-06-212							
				APPROVED R.N.POTTS DATE 20-08-2023				ALTERNATIVE MATERIAL																			

1		2		3		4		5		6		7		8		9		10																																									
DUAL MICROSWITCH IN PARALLEL, LED & DEVICES						SHEET 8						Module Device Codes		ISSUE		MOD No.		REASON - INITIAL - DATE																																									
GNEXCP7-BG[s][t][l][e][m][d][v][o][x][u][e][s] Switch Type [s] Terminals [t] Product Version [v] Product Option [o] LED Indicator [u] Series Module [s] EOL Module [e]						Resistor		E0xxR		S0xxR		1		ACN0127		INTRODUCTION RNP 20-08-2023																																											
						Diode		ED1		SD1		2		ACN0178		LED C and L version clarified ; LED mounted in N/O position on switch RNP 04-04-2025																																											
						Zener Diode		E0xxZ		S0xxZ																																																	
						LED		N/A		L or C																																																	
DUAL SWITCH PARALLEL WITH LED						CONFIG. P8-1						DUAL SWITCH PARALLEL WITH LED, EOL & SERIES DEVICES						CONFIG. P8-2						DUAL SWITCH PARALLEL WITH LED, EOL & ALT. SERIES DEVICES						CONFIG. P8-3																													
SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] [D] [P] [P] [C] or [L]						Dual PCB Version Parallel Wiring C = LED without RL1						SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULES [e][s] [D] [P] [P] [C] or [L] [Exxxx][Sxxxx]						Dual PCB Version Parallel Wiring C = LED without RL1 EOL and/or Series						SWITCH TYPE [s] TERMINALS [t] PRODUCT OPTION [o] LED INDICATOR [u] MODULES [e][s] [D] [P] [V] [C] or [L] [Exxxx][Sxxxx]						Dual PCB Version Parallel Wiring Alt. EOL Pos'n. C = LED without RL1 EOL and/or Series																													
Notes - For all LED Options: 1) The LED is configured as LED indicator option 'C' for this version the LED must be protected by a series resistor of a minimum value of 1.5K Ohm or by limiting the systems current to 20mA max 2) Units have the option to add the LED current-limiting resistor RL1 LED indicator option 'L' which is 1.5K Ohms. 3) Note that in both cases the total value of the series resistors and if fitted RL1 will impact the brightness of the LED.																																																											
DRAWING TO BS8888:2000 GEOMETRIC TOLERANCES TO ISO1101:1983 LINEAR DIMENSIONAL TOLS ANGULAR DIMENSIONAL TOLS						DRAWN R.N.POTTS DATE 20-08-2023						SURFACE FINISH						WEIGHT (Kg)						THIS DRAWING AND ANY INFORMATION OR DESCRIPTIVE MATTER THEREIN IS COMMUNICATED IN CONFIDENCE AND IS THE COPYRIGHT PROPERTY OF EUROPEAN SAFETY SYSTEMS LTD. NEITHER THE WHOLE OR ANY EXTRACT MAY BE DISCLOSED, LOANED, COPIED OR USED FOR MANUFACTURING OR TENDERING PURPOSES WITHOUT THEIR WRITTEN CONSENT. EUROPEAN SAFETY SYSTEMS LTD. AS PER LATEST DATE OF ISSUE SHOWN ABOVE												ALL DIMENSIONS IN MM IF IN DOUBT, ASK - DO NOT SCALE																							
STANDARDS GNExCP7 ; STExCP8 ; WP7 units with PCB						CHECKED B.ISARD DATE 20-08-2023						MATERIAL																																															
APPROVED R.N.POTTS DATE 20-08-2023						ALTERNATIVE MATERIAL																																																					
																																				TITLE GNExCP7 ; STExCP8 ; WP7 CALL POINT WIRING / CIRCUIT OPERATION DIAGRAM						SCALE NTS						SHEET 8 OF 8						DRAWING NUMBER D202-06-212					

EU Declaration of Conformity



Manufacturer: European Safety Systems Ltd.
Impress House, Mansell Road, Acton
London, W3 7QH
United Kingdom

Authorised Representative: E2S Warnsignaltechnik UG
Charlottenstrasse 45-51
72764 Reutlingen
Germany

Equipment Type: STExCP8-BG-S, STExCP8-BG-D, STExCP8-BG-S-L or C, STExCP8-BG-D-L or C
STExCP8-PB-S, STExCP8-PM-S, STExCP8-PT-S,
STExCP8-PB-S-L or C, STExCP8-PM-S-L or C, STExCP8-PT-S-L or C,
STExCP8-PB-D, STExCP8-PM-D, STExCP8-PT-D
STExCP8-PB-D-L or C, STExCP8-PM-D-L or C, STExCP8-PT-D-L or C

Directive 2014/34/EU: Equipment and Protective Systems for use in Potentially Explosive Atmospheres (ATEX)

Notified Body for EU type Examination (Module B):	UL International Demko A/S Notified Body No.: 0539 Borupvang 5A, 2750 Ballerup, Denmark
EU-type Examination Certificate (Module B):	DEMKO 15ATEX1589X
Notified Body for Quality Assurance Notification / Conformity to EU-type based on quality assurance of the production process (Module D):	Sira Certification Service Notified Body No.: 2813 CSA Group Netherlands B.V, Utrechtseweg 310, 6812 AR, Arnhem, Netherlands
Quality Assurance Notification (Module D):	SIRA 05 ATEX M342
Provisions fulfilled by the equipment:	II 2G Ex db IIC T4 Gb II 2G Ex db IIC T5 Gb II 2G Ex db IIC T6 Gb
Standards applied:	EN 60079-0: 2012 + A11: 2013 EN 60079-1: 2014

Directive 2014/30/EU: Electromagnetic Compatibility Directive (EMC)

Standards applied:	EN 61000-6-1:2007 EN 61000-6-2:2005 EN 61000-6-3:2007 / A1:2011 / AC: 2012 EN 61000-6-4:2007 / A1: 2011
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Directive 2011/65/EU: Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

The product and all the components contained within it are in accordance with the restriction of the use of hazardous substances in electrical and electronic equipment, including amendment by Directive 2015/863/EU.

Regulation (EC) 1907/2006: Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

The product and all the components contained within it are free from substances of very high concern.

Other Standards and Regulations

EN 60529:1992+A2:2013 - Degrees of protection provided by enclosures (IP code) – enclosure rated IP66

EU Declaration of Conformity



On behalf of European Safety Systems Ltd., I declare that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives, regulations and standards.

This Declaration is issued under the sole responsibility of the manufacturer.

A handwritten signature in black ink, appearing to read 'Martin Streetz'.

Martin Streetz
Quality Assurance Manager

Document No.:
Date and Place of Issue:

DC-071_Issue_E
London 10/09/2023



UKCA Declaration of Conformity



Manufacturer: European Safety Systems Ltd.
Impress House, Mansell Road, Acton
London, W3 7QH
United Kingdom

Equipment Type: STExCP8-BG-S, STExCP8-BG-D, STExCP8-BG-S-L or C, STExCP8-BG-D-L or C
STExCP8-PB-S, STExCP8-PM-S, STExCP8-PT-S,
STExCP8-PB-S-L or C, STExCP8-PM-S-L or C, STExCP8-PT-S-L or C,
STExCP8-PB-D, STExCP8-PM-D, STExCP8-PT-D
STExCP8-PB-D-L or C, STExCP8-PM-D-L or C, STExCP8-PT-D-L or C

Directive UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1 : Product or Protective System Intended for use in Potentially Explosive Atmospheres (UKCA)

Notified Body for UK type Examination (Module B):	UL International (UK) Ltd Notified Body No.: 0843 Unit 1-3 Horizon Kingsland Business Park, Wade Road, Basingstoke, Hampshire RG24 8AH UK
UK-type Examination Certificate (Module B):	UL21UKEX2133X
Notified Body for Quality Assurance Notification / Conformity to EU-type based on quality assurance of the production process (Module D):	Sira Certification Service Notified Body No.: 0518 Rake Lane, Eccleston, Chester CH4 9JN, UK
Quality Assurance Notification (Module D):	CSAE 22UKQAN0046
Provisions fulfilled by the equipment:	II 2G Ex db IIC T4 Gb II 2G Ex db IIC T5 Gb II 2G Ex db IIC T6 Gb
Standards applied:	EN IEC 60079-0:2018 EN 60079-1: 2014

Directive 2014/30/EU: Electromagnetic Compatibility Directive (EMC)

Standards applied:	EN 61000-6-1:2007 EN 61000-6-2:2005 EN 61000-6-3:2007 / A1:2011 / AC: 2012 EN 61000-6-4:2007 / A1: 2011
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Directive 2011/65/EU: Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

The product and all the components contained within it are in accordance with the restriction of the use of hazardous substances in electrical and electronic equipment, including amendment by Directive 2015/863/EU.

Regulation (EC) 1907/2006: Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

The product and all the components contained within it are free from substances of very high concern.

Other Standards and Regulations

EN 60529:1992+A2:2013 - Degrees of protection provided by enclosures (IP code) – enclosure rated IP66



UKCA Declaration of Conformity



On behalf of European Safety Systems Ltd., I declare that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives, regulations and standards.

This Declaration is issued under the sole responsibility of the manufacturer.

Martin Streetz
Quality Assurance Manager

Document No.: DC-101_Issue_B
Date and Place of Issue: London 10/09/2023