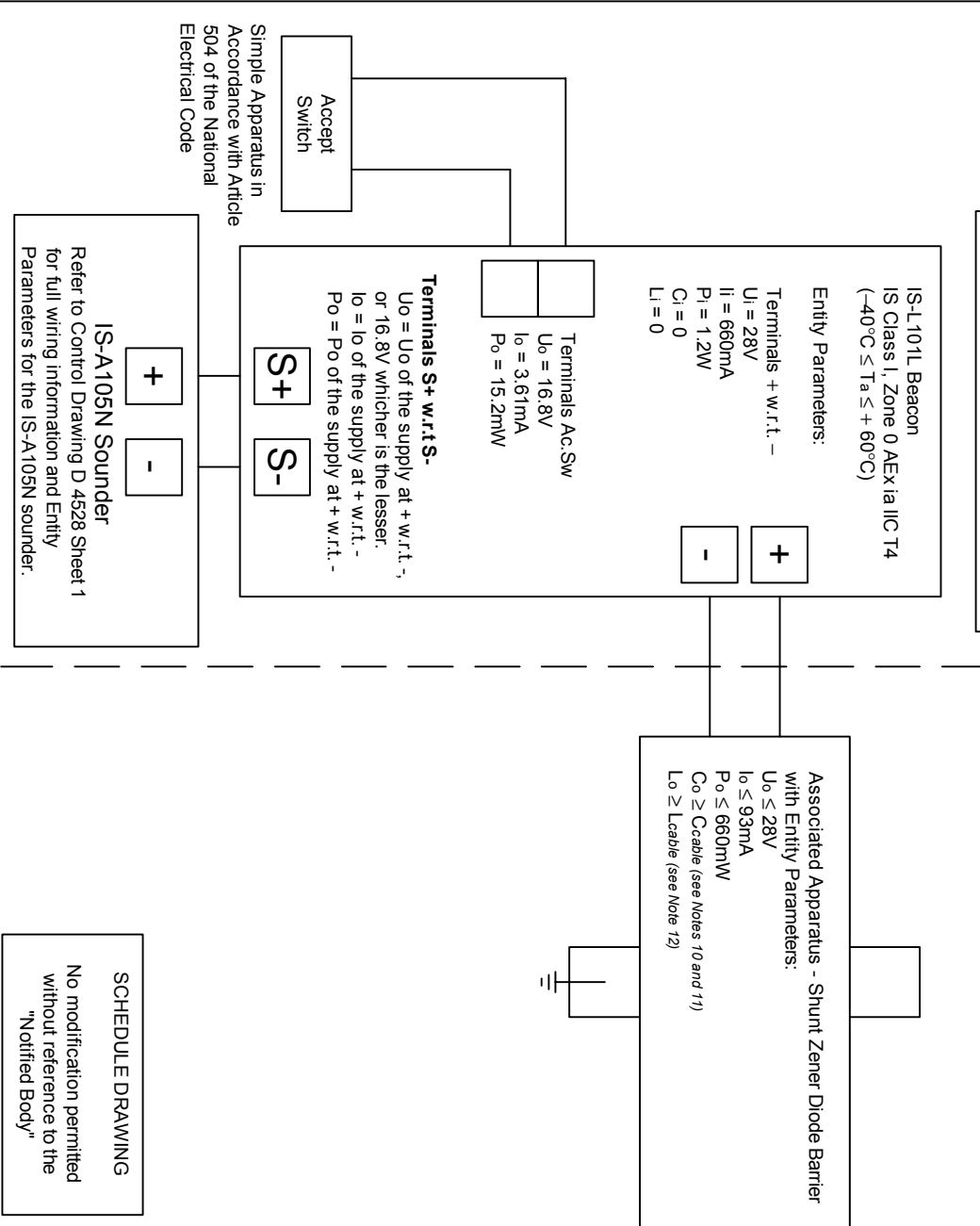


Hazardous (Classified) Location
Class I, Division 1, Groups A, B, C, D
Class I, Zone 0, Groups IIA, IIB, IIC

Unclassified Location



1. No revision to drawing without prior FM approval.
 2. The associated apparatus must be FM approved.
 3. The associated apparatus manufacturer's installation drawing must be followed when installing this equipment.
 4. Installation should be in accordance with ANSI/ISA RP12.06.01 "Installation of Intrinsically Safe Systems for Hazardous (Classified) Locations" and the National Electrical Code (ANSI/NFPA 70).
 5. The resistance between the intrinsically safe ground and the earth ground must be less than 1 ohm.
 6. The Shunt Zener Diode Barrier must be a FM approved, resistively limited, single channel barrier having parameters less than, or equal to, those quoted, and for which the output is non-ignition capable for the Class, Division or Zone and Group of use.
 7. The IS-L101L Beacon enclosure has an ingress protection rating of IP 66. If supplied without cable entry devices then metallic or plastic cable glands, or conduit hubs, shall be fitted that provide the required environmental protection.
 8. To prevent ignition of flammable or combustible atmospheres, disconnect power before servicing.
 9. Substitution of components may impair safety.
 10. C_{cable} = capacitance of cable connecting the shunt zener diode barrier to the beacon + capacitance of the cable connecting the sounder to the beacon.
 11. The total capacitance connected to terminals +/- of the beacon plus the total capacitance connected to terminals +/- of the sounder, i.e. C_{cable} plus any other capacitance, shall not exceed 83nF.
 12. L_{cable} = loop inductance of cable connecting the shunt zener diode barrier to the beacon + loop inductance of cable connecting the sounder to the beacon.
- Note:**
CAUTION - Bonding between conduit connections is not automatic and must be provided as part of this installation.

Issue:	A	MRS	17-02-06	Drawn:	GU	Date:	20-10-05
Appd.							

Title
IS-L101L Beacon (used with IS-A105N sounder)
Control Drawing for shunt zener diode barrier.

Drawing No.
D 4627 Sheet 3 of 4

European Safety Systems Ltd.
Impress House
Mansell Road
Acton
London W3 7QH

Computer Ref. D 4627c.dwg

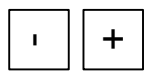
Hazardous (Classified) Location
Class I, Division 1, Groups A, B, C, D
Class I, Zone 0, Groups IIA, IIB, IIC

Unclassified Location

IS-L101L Beacon
IS Class I, Zone 0 AEx ia IIC T4
(-40°C ≤ T_a ≤ +60°C)

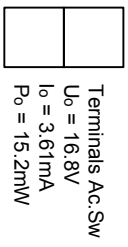
Entity Parameters:

Terminals + w.r.t. -
U_i = 28V
I_i = 660mA
P_i = 1.2W
C_i = 0
L_i = 0



Associated Apparatus - Galvanically Isolated
Supply with Entity Parameters:

U_o ≤ 28V
I_o ≤ 93mA
P_o ≤ 660mW
C_o ≥ C_{cable} (see Notes 9 and 10)
L_o ≥ L_{cable} (see Note 11)

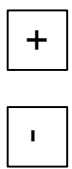


Terminals Ac.Sw
U_o = 16.8V
I_o = 3.61mA
P_o = 15.2mW

Terminals S+ w.r.t.S-
U_o = U_o of the supply at + w.r.t. -,
or 16.8V whichever is the lesser.
I_o = I_o of the supply at + w.r.t. -
P_o = P_o of the supply at + w.r.t. -



Simple Apparatus in
Accordance with Article
504 of the National
Electrical Code



IS-A105N Sounder
Refer to Control Drawing D 4528 Sheet 2
for full wiring information and Entity
Parameters for the IS-A105N sounder.

SCHEDULE DRAWING
No modification permitted
without reference to the
"Notified Body"

1. No revision to drawing without prior FM approval.
2. The associated apparatus must be FM approved.
3. The associated apparatus manufacturer's installation drawing must be followed when installing this equipment.
4. Installation should be in accordance with ANSII/ISA RP12.06.01 "Installation of Intrinsically Safe Systems for Hazardous (Classified) Locations" and the National Electrical Code (ANSI/NFPA 70).
5. The Galvanically Isolated Supply must be a FM approved, resistively limited, single channel supply having parameters less than, or equal to, those quoted, and for which the output is non-ignition capable for the Class, Division or Zone and Group of use.
6. The IS-L101L Beacon enclosure has an ingress protection rating of IP 66. If supplied without cable entry devices then metallic or plastic cable glands, or conduit hubs, shall be fitted that provide the required environmental protection.
7. To prevent ignition of flammable or combustible atmospheres, disconnect power before servicing.
8. Substitution of components may impair safety.
9. Cable = capacitance of cable connecting the galvanically isolated supply to the beacon + capacitance of the cable connecting the sounder to the beacon.
10. The total capacitance connected to terminals +/- of the beacon plus the total capacitance connected to terminals +/- of the sounder, i.e. Cable plus any other capacitance, shall not exceed 83nF.
11. Cable = loop inductance of cable connecting the galvanically isolated supply to the beacon + loop inductance of cable connecting the sounder to the beacon.

Note:
CAUTION - Bonding between conduit connections is not automatic and must be provided as part of this installation.

Issue:	Appd.	Date:	Drawn:	Date:
A	MRS	17-02-06	GU	20-10-05

Title
IS-L101L Beacon (used with
IS-A105N sounder)
Control Drawing for galvanically
isolated supply.

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Drawing No. **D 4627 Sheet 4 of 4**
Computer Ref. D 4627d.dwg