



DICHIARAZIONE DEL COSTRUTTORE / MANUFACTURER'S DECLARATION

Noi / We

Gamma System S.r.l.
Via Torino 24/I
10044 PIANEZZA (TO)

dichiariamo sotto la ns. completa responsabilità / *declare under our sole responsibility*

che / *that*

i Bumper serie **GSBPSATEX0x** ed i tappeti sensibili tipo **GSTSPATEX**
the Bumpers series GSBPSATEX0x and Mats type GSTSPATEX

sono **apparecchiature semplici**, per utilizzo in sistemi a sicurezza intrinseca, secondo quanto previsto dalla norma EN 60079-11: 2012, art. 5.7 a). Gli apparecchi non contengono sorgenti potenziali di innesco di atmosfere esplosive, e pertanto non rientrano nel campo di applicazione delle Direttiva Europea 2014/34/UE (ATEX) (EN 60079-11: 2012, art.5.7).

Ai contatti interni dei Bumper e Tappeti è stata assegnata la classe di temperatura T6 [IEC-EN 60079-11 - Simple Apparatus Form ^(#)], e possono essere inseriti in sistemi a sicurezza intrinseca con livello di protezione "ia", per sostanze dei gruppi IIA, IIB e IIC (gas o vapori infiammabili) e/o dei gruppi IIIA, IIIB e IIIC (polveri combustibili).

are simple apparatus, for use in intrinsically safe systems, according to the standard EN 60079-11: 2012 art. 5.7 a). The apparatus do not contain potential sources of ignition capable of causing an explosion, and therefore they are out of the scope of the European Directive 2014/34/EU (ATEX) (EN 60079-11: 2012, art.5.7).

The internal contacts of Bumpers and Mats have been allocated the temperature classification T6 [IEC-EN 60079-11 - Simple Apparatus Form ^(#)], and they can be used in intrinsically safe systems with level of protection "ia", for applications in groups IIA, IIB and IIC (flammable gas or vapours) and/or in groups IIIA, IIIB e IIIC (combustible dusts).

IMPORTANTE: leggere attentamente i Manuali di istruzioni pertinenti, allegati, prima di installare i Bumper serie **GSBPSATEX0x** e/o i tappeti sensibili tipo **GSTSPATEX**.

IMPORTANT: before installing the Bumpers series **GSBPSATEX0x** and/or the Mats type **GSTSPATEX**, read carefully the attached relevant instruction Manuals.

^(#) Documento di riferimento / *reference document* **GS-SAF01/19**

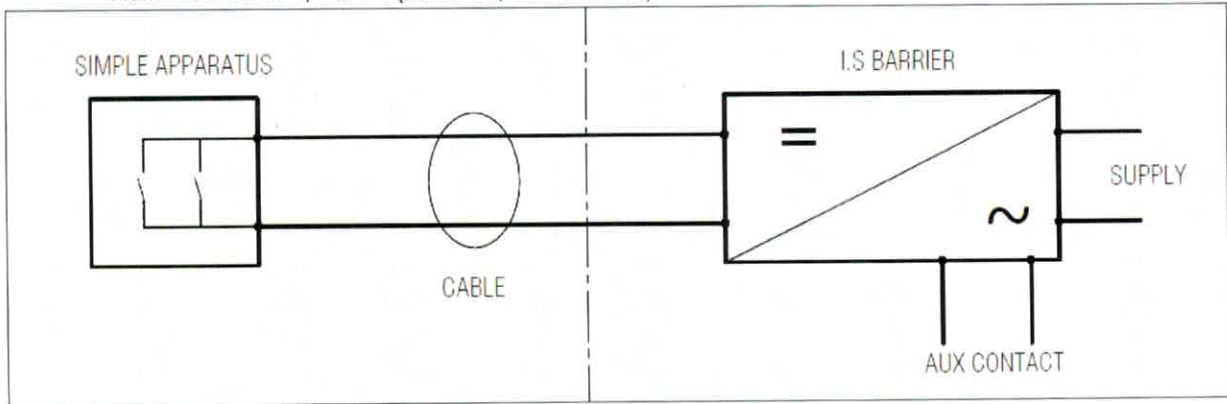
Pianezza, 29.05.2019

Gamma System S.r.l.
The General Manager
(Maurizio Valentini)

**Intrinsically Safe System
Pressure sensitive Bumper and Mat (internal contacts)**

Haz. Loc. Zone 1, IIC T4 (Zone 21, IIIC T135°C)

SAFE AREA



| Simple Apparatus ⁽¹⁾ | | Cable | Barrier (2 channels) | |
|---|--------------------------------------|--|--|--------------------------|
| Manufacturer: Gamma System S.r.l. | | Manuf.: Various | Manuf.: G.M. International S.r.l. | |
| Type: (see doc. N. GS-SAF01/19) | | Type: FROR 300/500 V | Type: D5030S (1 channel) or D5030D (2 channels) | |
| Electrical Rating Un: 24 Vdc - In: up to 30 mA | | Form.: 4 x 0.35 mm ² | Type of prot.: [Ex ia Ga] IIC | |
| SAFETY PARAMETERS | | Capacitance: 200 pF/m ⁽²⁾ | Certificate: BVS 10 ATEX E 113 X | |
| U _i : 24 V | | Inductance: 1.2 µH/m ⁽²⁾ | U _m : 253 V | U _o : 10.5 V |
| I _i : 30 mA | P _i : N.A. ⁽³⁾ | Length: ≤ 20 m | I _o : 22 mA | P _o : 56 mW |
| C _i : negligible | L _i : negligible | Total capacitance (C _c) = 4 nF Total inductance (L _c) = 24 µH | C _o : 2.4 µF | L _o : 78.3 mH |

Notes:

- ⁽¹⁾ Pressure sensitive contacts inside Bumpers and Mats
- ⁽²⁾ Conservative values, due to lack of information from manufacturers [EN 60079-25, art. 9.3 c)]
- ⁽³⁾ Coherently, of course, with Intrinsic Safety; Not Applicable to simple contacts

System Safety Verification

U_i > U_o: OK

I_i > I_o: OK

C_i + C_c << C_o: OK

L_i + L_c << L_o: OK

Minimum requirement

Ex ib IIC T4 / Ex ib IIIC T135°C

Requirement satisfied

Ex ia IIC T6 / Ex ia IIIC T85°C