Connections for BPC3200-*

HAZARDOUS LOCATION
Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Group IIC
Zone 2, Group IIC, IIB, IIA

HAZARDOUS LOCATION
Class I, Division 2, Groups A, B, C, D; T4
Class I, Zone 2, Group IIC; T4
Zone 2, Group IIC, IIB, IIA; T4

Connections for RM-320P-*, PC-320P-*

HAZARDOUS LOCATION
Class I, Division 2, Groups A, B, C, D
Class II, Division 2, Groups F, G
Class III

Class I, Zone 2, Group IIC
Class II, Zone 22, Group IIIB
Class III, Zone 22, Group IIIA

Zone 2, Group IIC
Zone 22, Group IIIC

HAZARDOUS LOCATION
Class I, Division 2, Groups A, B, C, D; T4
Class II, Division 2, Groups F, G
Class III

Class I, Zone 2, Group IIC; T4
Class II, Zone 22, Group IIIB
Class III, Zone 22, Group IIIA

Zone 2, Group IIC; T4
Zone 22, Group IIIC

Connections for RM-320S-*, PC-320S-*

HAZARDOUS LOCATION
Class I, Division 2, Groups A, B, C, D
Class II, Division 2, Groups F, G
Class III

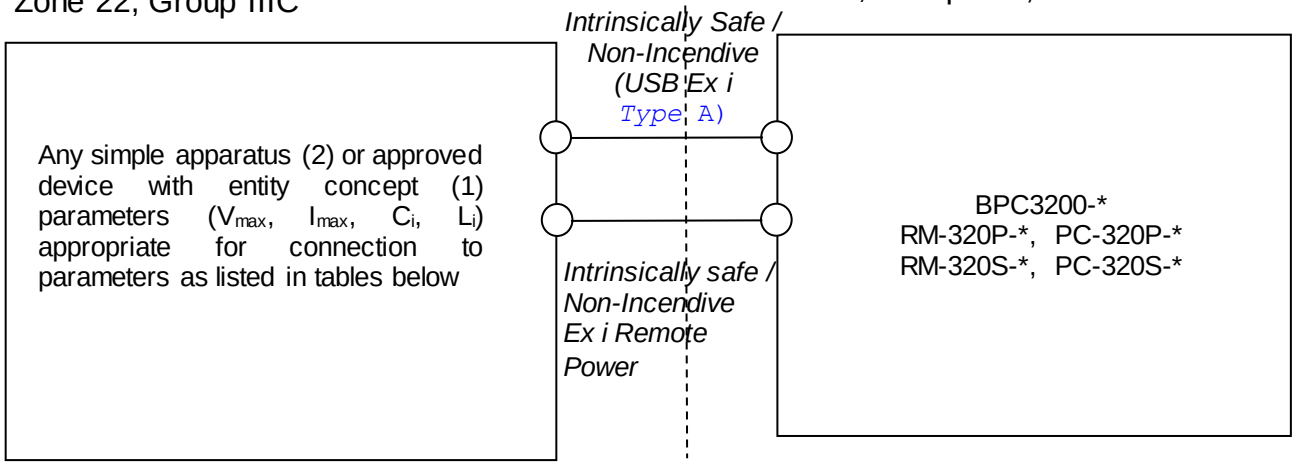
Class I, Zone 2, Group IIC
Class II, Zone 22, Group IIIB
Class III, Zone 22, Group IIIA

Zone 2, Group IIC
Zone 22, Group IIIC

HAZARDOUS LOCATION
Class I, Division 2, Groups A, B, C, D; T4
Class II, Division 2, Groups F, G; T85°C
Class III

Class I, Zone 2, Group IIC; T4
Class II, Zone 22, Group IIIB, T85°C
Class III, Zone 22, Group IIIA, T85°C

Zone 2, Group IIC; T4
Zone 22, Group IIIC; T85°C



Notes

1. The Entity Concept allows interconnection of an Intrinsically Safe / Non-Incendive apparatus with an Intrinsically Safe / Non-Incendive associated apparatus not specifically examined in combination as a system when the approved values of V_{oc} (or U_o) and I_{sc} (or I_o) and P_o (P_o) for the associated apparatus are less than or equal to V_{max} (U_i) and I_{max} (I_i) and P_i (P_i) for the apparatus and the approved values of C_a (C_o) and L_a (L_o) for the associated apparatus are greater than $C_i + C_{cable}$ and $L_i + L_{cable}$, respectively, for the apparatus, Where the cable capacitance and inductance per foot are not known, the following values shall be used: Ccable = 60 pF/ft. (197 pF/m), Lcable = 0.2 µH/ft. (0.66 µH/m).
   The provided cable's specifications are: Ccable = 49 pF/ft. (160 pF/m), Lcable = 0.16 µH/ft. (0.5 uH/m).
   If using the Intrinsically Safe / Non-Incendive P+F ISB Ex-i keyboard EXTA*, the provided cable's specifications are: Ccable = 49 pF/ft. (160 pF/m), Lcable = 0.16 µH/ft. (0.5 uH/m).

2. Simple apparatus: an electrical component or combination of components of simple construction with well-defined electrical parameters that does not generate more than 1.5 V, 100mA, 25mW, or is a passive component that does not disipate more than 1.3W and is compatible with the Intrinsically Safe / Non-Incendive of the circuit in which it is used.

3. For Intrinsically Safe / Non-Incendive connections, wiring methods must be in accordance with all applicable installation requirements of the country/location in use. For US, this is the applicable edition of NFPA 70 (NEC) article 504 with additional information in ANSI/ISA –RP12.06.01. For Canada this is the applicable edition of CSA 22.1 (CE Code) section 18 and appendix J. For ATEX/IECEx observe the installation instructions according to IEC/EN 60079-14.

4. *WARNING: Substitution of components may impair* Intrinsically Safe / Non-Incendive *and suitability for hazardous (classified) locations.*
   AVERTISSEMENT: le remplacement des composants peut altérer la sécurité intrinsèque / non incendiaire et l'adéquation à une utilisation dans des zones dangereuses (classées).

5. Additional notes

   The corresponding datasheets, manuals, instructions and certificates are an integral part of this document. You can find this information under www.pepperl-fuchs.com.

Entity Parameters

Only for model types: BPC3200*, RM3200* and PC3200*

1. Ex i Remote Power

$U_o \leq 5$ V
$I_o \leq 10$ mA
$P_o \leq 50$ mW
L_i negligible
$C_i \leq 1$ µF
Output characteristic: linear

For group IIC:
Co = 999 µF
Lo = 100 mH
Following values of Lo and Co can be applied combined. (Ci already subtracted)

Co [µF]	2.1	3.8	11	31	189
Lo [µH]	100000	5000	100	10	2

2. USB Ex i (only BPC*, RM* and PC*)

$U_o \leq 5.3$ V
$I_o \leq 240$ mA
$P_o \leq 1.27$ W
L_i negligible
$C_i \leq 11$ µF
Output characteristic: rectangular

For group IIC:
Co = 989 µF
Lo = 50 µH
Following values of Lo and Co can be applied combined. (Ci already subtracted)

Co [µF]	6	15	32	129	989
Lo [µH]	20	10	5	2	1

For group IIB resp. IIIC:
Co = 989µF
Lo = 1400µH
Following values of Lo and Co can be applied combined. (Ci already subtracted)

Co [µF]	5	32	76	329	989
Lo [µH]	1000	200	50	10	4

For group IIA:
Co = 989µF
Lo = 5500µH
Following values of Lo and Co can be applied combined. (Ci already subtracted)

Co [µF]	14	28	75	239	989
Lo [µH]	1000	500	100	20	4

- Conditions for Use

1. BPC3200*, RM-320P-*, PC-320P-*

The device has to be installed in a suitable housing corresponding to EN 60079-0 in such a way, that a degree of protection of at least IP54 according to EN 60529 is reached.

Device mustbe supplied from SELV/PELV or Class 2 power supply circuits with maximum voltage Um = 30 VDC.

2. RM-320S-*, PC-320S-*

RM-320S-**-****-D-*, PC-320S-**-****-D-*:
DC device must be supplied from SELV/PELV-circuits with maximum voltage Um = 30 VDC.

RM-320S-**-****-A-*, PC-320S-**-****-A-*:
AC device must be supplied from evaluated power supply which provides SELV/PELV or Class 2 power supply output voltage of maximum Um = 30 VDC.