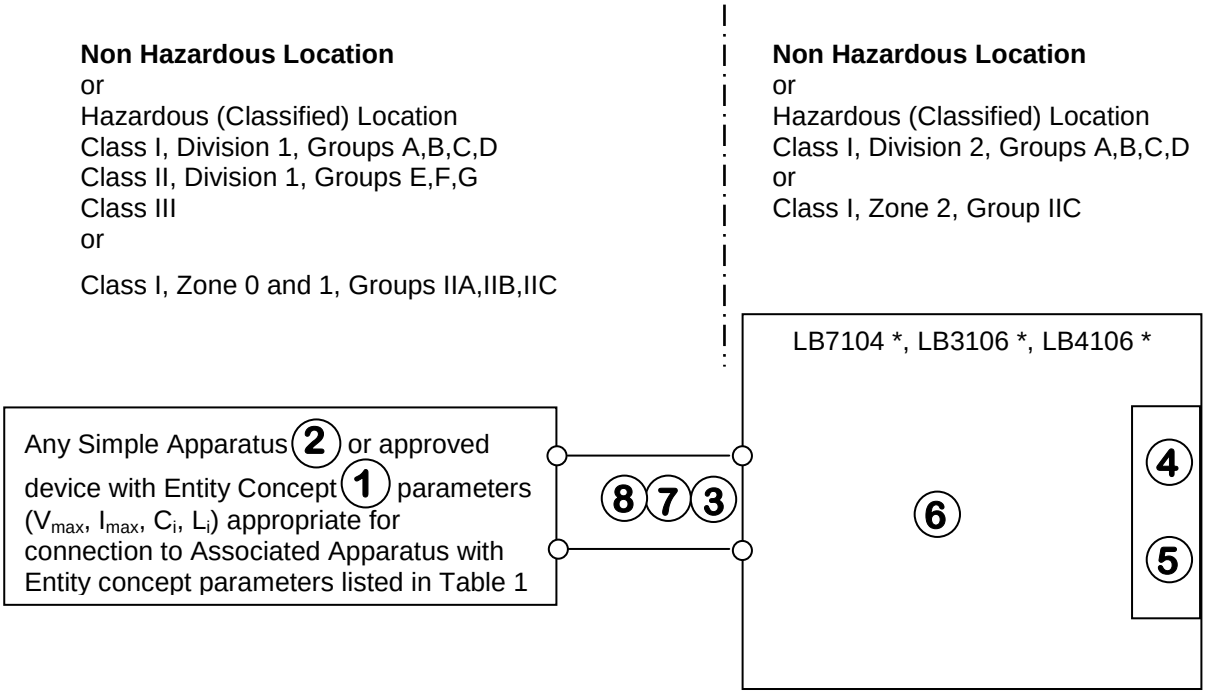
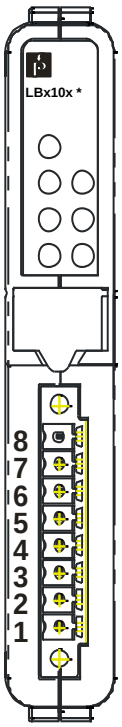
LB Remote I/O type LB7104 *, LB3106 *, LB4106 *

UL-File Number E106378





LB7104 *
LB3106 *
LB4106 *

***: must show one letter only**
Identify the variant of the module type or can be left e.g.
A – means variant A
C – means variant C etc.
(in case of different ex-relevant parameters they are described and listed separately)

1 ..... 8 see notes next sides !

Dieses Dokument enthält sicherheitsrelevante Angaben. Es darf nicht ohne Absprache mit dem Normen Experten (NE Ex) geändert werden!		
This document contains safety-relevant information. It must not be altered without the authorization of the norm expert (NE Ex)!		
CONFIDENTIAL acc. to ISO 16016	valid as long as released in EDM	date: 2014-Jan-20
PEPPERL+FUCHS	Control Drawing	**116-0353**
Worldwide	LB7104 *, LB3106 *, LB4106 *	sheet 1 of 3

Type	Terminals	Ex values			GP A, B, IIC		GP C, D, E, F,G IIB / IIA	
		U_0 [V]	I_0 [mA]	P_0 [mW]	C_0 [µF]	L_0 [mH]	C_0 [µF]	L_0 [mH]
LB7104 * LB3106 * LB4106 *	Ch1: 1(+), 2(-)	27	87	575	0.090	4.6	0.705	18
	Ch2: 3(+), 4(-)	27	87	575	0.090	4.6	0.705	18
	Ch3: 5(+), 6(-)	27	87	575	0.090	4.6	0.705	18
	Ch4: 7(+), 8(-)	27	87	575	0.090	4.6	0.705	18

Table 1 - Intrinsically Safe Entity Parameter

Notes:

1. The Entity Concept allows interconnection of intrinsically safe apparatus with 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) for the associated apparatus are less than or equal to $V_{max}(U_i)$ and $I_{max}(I_i)$ for the intrinsically safe 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 intrinsically safe apparatus.
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 volts, 100 milliamps, and 25 milliwatts, or a passive component that does not dissipate more than 1.3 watts and is compatible with the intrinsic safety of the circuit in which it is used.
3. Wiring methods must be in accordance with National Electrical Code (NEC) for US, and Canadian Electrical Code (CEC) for Canada.
4. The maximum rms or dc U_m that can be applied is:
   - 60 V for power supply input
   - 30 V for bus signal input (communication input).
5. Connection only to certified backplane and certified power supply as listed in control-drawing 116-0396.
6. The LB Remote I/O are rated 'Nonincendive'. If the LB Remote I/O is intended to be mounted in a Division 2 location, they must be mounted in an enclosure with a minimum ingress protection of IP54. If the LB Remote I/O are intended to be mounted in a Zone 2 location they must be mounted in an AEx or Ex certified enclosure with ingress protection IP54. The enclosure must be able to accept Division 2 / Zone 2 wiring methods. A temperature rating of T4 applies to all nonincendive rated LB Remote I/O.
7. Modules with multiple intrinsically safe field wiring pairs shall be installed as separate intrinsically safe circuits.
8. For installations in which both the Ci and Li of the intrinsically safe apparatus exceeds 1 % of the Co and Lo parameters of the associated apparatus (excluding the cable), then 50 % of Co and Lo parameters are applicable and shall not be exceeded.
   Note: the reduced capacitance of the external circuit (including cable) shall not be greater than 1 uF for IIB and 600 nF for IIC.

WARNING – EXPLOSION HAZARD – Substitution of Components may impair intrinsic safety and suitability for use in Class I, Division 2
AVERTISSEMENT – RISQUE D'EXPLOSION – La substitution de composants peut compromettre la sécurité intrinsèque et rendre ce matériel inacceptable pour l'utilisation dans les emplacements de Classe I, Division 2.

WARNING – EXPLOSION HAZARD – Do not disconnect the equipment unless the power has been switched off or the area is known to be non-hazardous
AVERTISSEMENT – RISQUE D'EXPLOSION - Ne pas déconnecter l'appareil si sous tension ou en présence d'une atmosphère explosive

UL Notes:

- LB Remote I/O must be installed in an enclosure that meets the requirements of ANSI/ISA S82.01 and NEC rsp. ANSI/ISA 12.12.01-2013
- Installation should be in accordance with ANSI RP 12.6 „Installation of Intrinsically Safe Systems for “Hazardous (Classified) Locations“ and the National Electrical Code (ANSI/NFPA 70). Where multiple intrinsically safe circuits extend from an associated apparatus, they must be installed in separate cables or in one cable having suitable insulation.

c-UL Notes:

- LB Remote I/O must be installed in an enclosure that meets the requirements of the Canadian Electrical Code, CSA C 22.1; Part 1 Appendix F.
- Wiring methods must be in accordance with the Canadian Electrical Code CSA C22.1 Part 1 Appendix F.