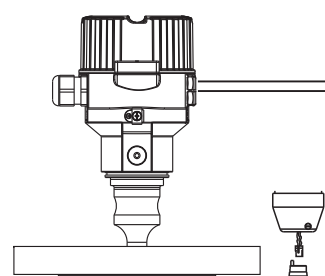


### Hazardous location

Class I, Div. 1, Groups A, B, C, D  
 Zone 0  
 Class II, Div. 1, Groups E, F, G  
 Class III



Option:  
 separate housing

**Entity parameter:**  
 Vmax. = 30 VDC  
 Imax. = 300 mA  
 Pmax = 1 W  
 Ci ≤ 10 nF  
 Li = 0

#### Areas of application

The compact instruments are suitable for use in areas subject to explosion caused by gases, vapours or mists.

**Table: Permissible ambient temperature and temperature code:**

Temperature code	Permissible ambient temperature, electronic compartment
T6	-40...40 °C
T4	-40...70 °C

option for Ta min: -50 °C

The devices are FM Certified as Single Seal per ANSI/ISA 12.27.01 as tabulated below; therefore installation of external secondary seals is not required.

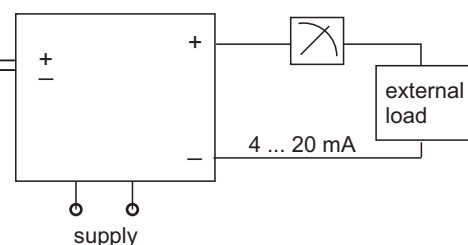
Single Seal	Model	Limited to:	
		MWP*	Process Temperature**
	LHC-M51	400 (5800 psi)	-40°C...+100°C
	PPC-M51	40 (580 psi)	-40°C...+125°C

\* Limitations of the Maximum Working Pressure (MWP) are marked on the nameplate and must be considered!

\*\* Limitations of the process temperature range depending on the used version are specified in the applicable technical information of the manufacturer and must be considered!

### Non hazardous location

barrier / associated equipment



Intrinsically safe Ex ia for Cl. I, Div. 1, Groups A, B, C, D, Cl. II, Div. 1, Groups E, F, G, Cl. III;  
 Ex ia IIC T6

#### Hazardous Locations Installations

##### Division 1 Installation:

- Control room equipment may not use or generate over 250 V.
- Install per the Canadian Electrical Code or National Electrical Code (ANSI/NFPA70) and ISA RP 12.06.01.
- For entity installations: Use CSA certified intrinsic safety barrier or other associated equipment that satisfy the following conditions:  $V_{oc} \leq V_{max}$ ,  $I_{sc} \leq I_{max}$ ,  $C_a \geq C_i + C_{cable}$ ,  $L_a \geq L_i + L_{cable}$ .

Transmitter entity parameters are as follows:  
 $U_i / V_{max} = 30$  VDC  
 $I_i / I_{max} = 300$  mA  
 $P_i / P_{max} = 1$  W  
 $C_i \leq 10$  nF  
 $L_i = 0$   
 for T-code see table

##### 4. For System Installation:

Use: CSA certified safety barriers as follows:

- 28 V / 300 Ω + ground or
- 28 V / 300 Ω + 28 V / diode or
- 28 V / 300 Ω + 10 V / 50 Ω

##### 5. Warning: Substitution of components may impair intrinsic safety.

Avertissement : La substitution de composants peut compromettre la sécurité intrinsèque.

##### 6. Intrinsic safety barrier manufacturer's installation drawing must be followed, when installing this equipment: The configuration of the intrinsic safety barrier(s) must be CSA approved.

##### 7. Use supply wires suitable for 5 °C above surrounding.

Utiliser des fils d'alimentation qui conviennent à une température de 5 °C au-dessus de la température ambiante.

Suitable for Cl. I, Div. 2, Groups A, B, C, D, Cl. II, Div. 1, Groups E, F, G, Cl. III (only for NPT conduit entries)

#### Hazardous Location Installation (not for separated housing)

##### 1. Install per Canadian Electrical Code or National Electrical Code (ANSI/NFPA70) and ISA RP 12.06.01.

Intrinsic safety barrier not required  
 max. supply voltage 45 VDC  
 max. ambient temperature: 70°C

##### 2. Warning: Explosion Hazard - Do not disconnect equipment unless power has been switched off or the area is known to be non hazardous.

Avertissement : Risque d'explosion - avant de déconnecter l'équipement, couper le courant ou s'assurer que l'emplacement est désigné non dangereux.

Warning: Open circuit before removing cover.

Avertissement : Ouvrir le circuit avant d'enlever le couvercle.

Warning: Substitution of Components may impair suitability for Cl. I, Div. 2.

Avertissement : La substitution de composants peut rendre ce matériel inacceptable pour les emplacements de Cl. I, Div. 2.

### Control Drawing no. 116-0386

Dieses Dokument enthält sicherheitsrelevante Angaben. Es darf nicht ohne Absprache mit dem Normenfachmann (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	Only valid as long as released in EDM or with a valid production documentation!	date: 2014 March 04
 P+F Global	Control Drawing - CSA PPC-M51, LHC-M51 4..20mA HART	16-990CS-12A
	sheet 1 of 4	