











**WIKA IS-Barrier – WIKA P# 14117118  
 CONTROL / INSTALLATION DRAWING**

**C.D.-No.: 83171724**

**Art.Nr. Model Number**

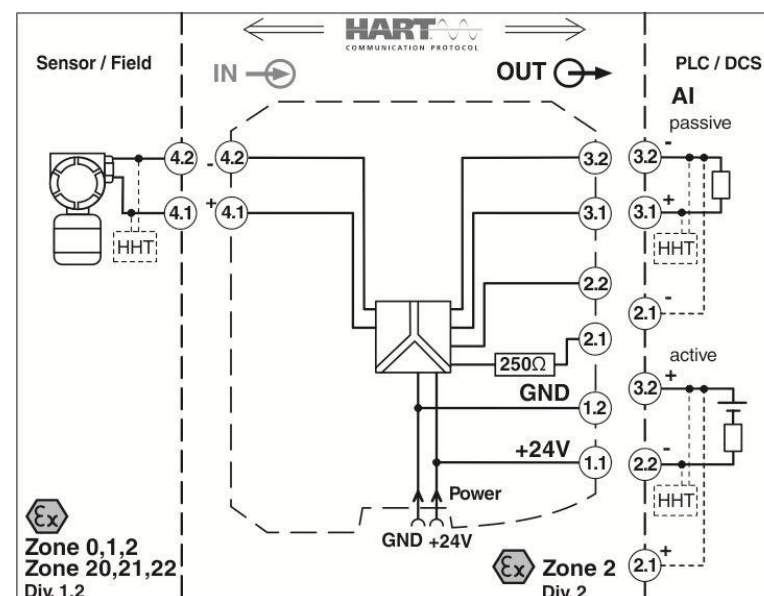
14117118 IS-Barrier

WARNING – EXPLOSION HAZARD – Substitution of components may impair suitability for Class I, Division 2 or Class I, Zone 2.

WARNING – EXPLOSION HAZARD – Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous.

AVERTISSEMENT - RISQUE D'EXPLOSION - Le remplacement des composants peut remettre en cause la compatibilité avec la classe I, division 2 ou classe I, zone 2.

AVERTISSEMENT - RISQUE D'EXPLOSION - Ne déconnecter l'appareil que s'il est hors tension ou si l'atmosphère est exempte de concentrations inflammables.



**HAZARDOUS AREA**

Class I, Division 1, Groups A,B,C,D  
 Class II, Division 1, Groups E,F,G  
 Class III, Division 1  
 Class I, Zone 0,1,2, Groups IIC,IIB,IIA

**NON HAZARDOUS AREA**

or Class I, Division 2, Groups A,B,C,D  
 or Class I, Zone 2, Groups IIC,IIB,IIA

- I. The Entity Concept allows interconnection of intrinsically safe apparatus with associated apparatus not specifically examined in combination as a system. Selected Intrinsically Safe Equipment must be third party listed as intrinsically safe for the application and have intrinsically safe entity parameters conforming with table 1 below:  
 Tabelle1:  

I.S. Equipment		Associated Apparatus
V max (or Ui)	≥	Voc or Vt (or Uo)
I max (or Ii)	≥	Isc or It (or Io)
P max (or Pi)	≥	Po
Ci + Ccable	≤	Ca (or Co)
Li + Lcable	≤	La (or Lo)

It should be noted, however, for installation in which both the Ci and Li of the intrinsically safe equipment exceed 1% of the Ca (or Co) and La (or Lo) parameters of the associated apparatus (excluding the cable), only 50% of Ca (or Co) and La (or Lo) parameters are applicable and shall not be exceeded.
- II. Capacitance and inductance of the field wiring from the intrinsically safe equipment to the associated apparatus shall be calculated and must be included in the system calculations as shown under I. Where the cable capacitance and inductance per foot are not known, the following values shall be used: Ccable = 60 pF / ft., Lcable = 0.2 μH / ft.
- III. The output current of this associated apparatus is limited by a resistor such that the output voltage-current plot is a straight line drawn between open-circuit voltage and short-circuit current.
- IV. This associated apparatus has not been evaluated for use in combination with another associated apparatus.
- V. This associated apparatus may also be connected to simple apparatus as defined in Article 504.2 and installed and temperature classified in accordance with Article 504.10(B) of the National Electrical Code (ANSI/NFPA70), or other local codes applicable.
- VI. Associated apparatus must be installed in an enclosure (which meets the requirements of ANSI/ISA S82) suitable for the application in accordance with the National Electrical Code (ANSI/NFPA 70) for installation in the United States, the Canadian Electrical Code for installation in Canada, or other local codes, as applicable.
- VII. When using as non-incendive device for Class I, Division 2 or Class I, Zone 2 do not snap equipment onto or off the T-connector, or connect and disconnect non-intrinsically safe-lines unless power has been removed or the area is known to be non hazardous.
- VIII. Intrinsically safe circuits must be wired separately in according with Article 504.20 of the National Electrical Code (ANSI/NFPA 70) for installation in the United States, the Canadian Electrical Code Part 1, Appendix F for installation in Canada, or other local codes, as applicable.
- IX. When multiple circuits extend from the same piece of associated apparatus, they must be installed in separate cables or in one cable having suitable insulation. Refer to Article 504.30(B) of the National Electrical Code (ANSI/NFPA 70) and Instrument Society of America Recommended Practice ISA RP12.6 for installing intrinsically safe equipment.

Art.Nr.	Model Number	output circuit - hazardous zone							Group A, B or IIC		Group C or IIB		Group D or IIA	
		Terminal	Voc or Uo / Vdc	Isc or Io / mA	Po / mW	Ci / nF	Li / mH	Ca or Co / nF	La or Lo / mH	Ca or Co / nF	La or Lo / mH	Ca or Co / nF	La or Lo / mH	
14117118	IS-Barrier	4.1-4.2	25,2	93	587	-	-	107	2	820	4	-	-	

Art.Nr.	Model Number	power supply circuit			Um	Max. Surrounding Air Temperature Rating: 60°C	signal circuit - safe zone			interface circuit socket
		Terminal	T-Connector	Un = 24 V - 20% +25% U range			Ambient Temperature Range: Tamb	Terminal	output	
14117118	IS-Barrier	1.1-1.2	yes	19,2 ... 30 V DC	253 V AC / 125 V DC	-20...+60°C	2.1-2.2 + 3.1-3.2	X	-	-