

EXPRO PassiveSONAR models – HAZARDOUS AREA Certification Guide

Model #	TB8-xx-xx-xx-03 Transmitter SH-xxx-xx-xA-xxx-03 Sensor Head ("ATEX Zone 2")	TB8-xx-xx-xx-02 Transmitter SH-xxx-xx-xx-xxx-02 Sensor Head ("US/CAN Div 2")
Shipping Address	This model is intended for use in Europe and other countries accepting ATEX Zone 2 certified equipment, as well as in Customs Union countries accepting EAC Zone 2 certified equipment.	This model is intended for use in the United States, Canada, and other countries accepting United States-certified or Canada-certified Class I, Division 2 equipment.
Surface or Mining?	Only certified for Surface use (Group II). Not certified for Mining (Group I).	Only certified for Surface use. Not certified for Mining.
Explosive Gas or Dust or Flyings?	Only certified for Explosive Gas (G). Not certified for Dust (D).	Only certified for Explosive Gas (Class I). Not certified for Dust (Class II) or Flyings (Class III).
What Zone?	Zone 2 (EUR/EAC) - OK Zone 1 (EUR/EAC) – Not Certified Zone 0 (EUR/EAC) – Not Certified	Zone 2 - (US/CAN) OK (*1) Zone 1 – (US/CAN) Not Certified Zone 0 – (US/CAN) Not Certified
What Division? (only applies to US & Canada)	Div 2 – Not recognized in EUR/EAC Div 1 – Not recognized in EUR/EAC	Div 2 (US/CAN) – OK Div 1 (US/CAN) – Not Certified
What Gas Groups? [Note: Propane is a typical group D or group IIA gas. Ethylene is a typical group C or group IIB gas. Hydrogen is a typical group B gas. Acetylene is a typical group A or group IIC gas.]	IIA – OK IIB – OK IIB+H2 – Not certified IIC – Not certified D – Not recognized in EUR/EAC C – Not recognized in EUR/EAC B – Not recognized in EUR/EAC A – Not recognized in EUR/EAC	IIA – Not recognized in US/CAN IIB – Not recognized in US/CAN IIB+H2 – Not recognized in US/CAN IIC – Not recognized in US/CAN D – OK C – OK B – OK A – OK
What is required minimum T-rating? [Note: The T-rating indicates the worst-case temperature that could be generated on the outside surface of the meter. T6 is the coolest at 85°C. T4 is 135°C. The required minimum T-rating is based on the Autoignition Temperature of the explosive gasses present.]	T1 – OK T2 – OK T3 – OK T4 – OK T4A – Not recognized in EUR/EAC T5 – Not certified T6 – Not certified	T1 – OK T2 – OK T3 – OK T4 – OK T4A – Not certified (*4) T5 – Not certified T6 – Not certified
What is required Ingress Protection rating of enclosures?	IP20 to IP55 – OK IP56 to IP68 – Not certified Type 4X – partially (*2)	IP20 to IP55 – Not marked (*2) IP56 to IP68 – Not certified Type 4X – partially (*2)
What is ambient air temp at meter location?	Only certified for range: -40°C to +60°C	Only certified for range: -40°C to +60°C.
What is ambient air temp at the location where the Transmitter will be installed?	Only certified for range: -20°C to +57°C	Only certified for range: -20°C to +60°C

What is the length of cable needed between the meter and the Transmitter?	Only certified for less than 114 meters (375 feet). Typically, Expro supplies cable only up to 300 feet long.	Only certified for less than 114 meters (375 feet). Typically, Expro supplies cable only up to 300 feet long.
What is the maximum temperature of pipe contents?	Only certified if not more than +100°C.	Only certified if not more than +100°C.
What is the minimum temperature of pipe contents?	Only certified if not less than -40°C.	Only certified if not less than -40°C.
Limitations for the Transmitter display window	The ATEX-certified Transmitter is NOT available with a window. The enclosure door must be opened to access the display and keypad.	The US/Canada Div 2 Transmitter comes with a window so the display can be read without opening the enclosure door.
Ex Safety Instructions for additional safety information [Includes the markings.]	20909-03C (Safety Manual) (*3) 20907-03C (Control drawing in appendix of the manual) (*3)	20822-01-03 – (Installation Manual) 20944-01C (Control drawing in appendix of the manual)
Hazardous Area certificates	EU-DEMKO 11 ATEX 1015266X (*3) EAC-TC RU C-US.ГБ04.B.00626 (EMI P/N ECD00066RU)	UL WYMV.E326286 (US) UL WYMV7.E326286 (Canada)
EU Declaration of Conformity	EU-ECD00055 (*3) EAC-ECD00064RU	Not applicable outside of Europe.
Installation Manual	EU-20822-01-03 EAC-20822-01-RU	20822-01-03
For questions or for copies of any of the listed documents, please contact us at:	Telephone: +1 203.303.5691 E-mail: ExproMetersTechnical@exprogroup.com	

Notes:

*1 – The US and Canadian model is certified for Class I, Division 2 (not Class I, Zone 2). However, the US and Canadian Electric Codes permit the use of equipment marked Class I, Division 2 in areas classified as Class I, Zone 2.

*2 – The empty Transmitter enclosure is Type 4X certified by its manufacturer. The Sensor Head is not. Note: US/Canada Div 2 Transmitter and Sensor Head enclosures are the same as the ATEX model's enclosures which were tested and certified IP55 as part of the ATEX Zone 2 certification.

*3 – For PassiveSONAR meters ordered prior to 4Q 2011, the ATEX certificate was DEMKO 07 ATEX 0608105X, the EC Declaration of Conformity was 20921-01, the ATEX Safety Manual was 20909-01C, and the ATEX Control Drawing was 20907-01C.

*4 – The Transmitter is T4A but the Sensor Head is T4 because of the 100°C maximum allowed temperature of the pipe contents.