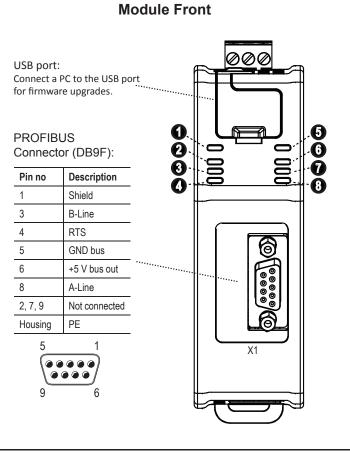
# Anybus X-gateway Modbus-TCP - PROFIBUS DP-V1 INSTALLATION SHEET



HMS Industrial Networks AB Web: www.anybus.com Tel: +46 35 172900 E-mail: info@hms.se





#### LEDs: X-gateway and Modbus-TCP Network No Indication Name Meaning 0 (GW) Power off Gateway Status Alternating red/gree Missing configuration Flashing green Idle Green Running Flashing red Invalid configuration Red Fatal error 6 (SD) Green Accessing SD card

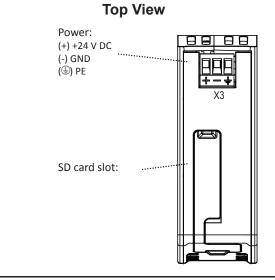
9	SD Card Status	Flashing red	Failure
6	(MTCP) Modbus-TCP Status	Off Green Flashing red Red	No Modbus-TCP network communication Communicating with Modbus-TCP network Transaction error or timeout Fatal error
7 8	(LA1, LA2) Ethernet Link 1 & 2	Off Flashing green Flashing yellow	No link Receiving/transmitting Ethernet packets at 100 Mbit Receiving/transmitting Ethernet packets at 10 Mbit

# LEDs: PROFIBUS Network

No	Name	Indication	Meaning
2	Not used	-	
3	(OP) Network Status	Off Flashing green Green Flashing red (1 flash) Flashing red (2 flashes)	Not online Online, clear Online, data exchange Parameterization error Configuration error
4	(ST) Module Status	Off Green Red	Not initialized Initialized Fatal error

SP1324, rev 2.01, Mar 2012. AB9001.

www.anybus.com



### **Bottom View**

 K2.1
 Pin no
 Description

 1
 TX+
 2
 TX 

 3
 RX+
 6
 RX 

 4, 5, 7, 8
 Termination
 Termination

# Installation and Startup Summary

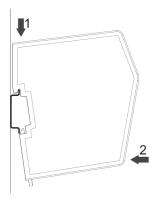
- Attach the X-gateway to the DIN-rail.
- Connect the module to the PROFIBUS network.
- Connect the module to the Modbus-TCP network.
- Turn on the module (+24 V DC).
- Download IPconfig from www.anybus.com to a PC.
- Connect the PC to the module via one of the Modbus-TCP connectors (Ethernet crossover cable not necessary). Use IPconfig to identify the IP address of the module on the network using its Modbus-TCP MAC address (found at the bottom of the module).
- Start a web browser (IE 7.0 or 8.0), enter the IP address and connect to the X-gateway's web interface.
- Configure the module using the web configuration pages.
- Include the Anybus X-gateway GSD file in the PROFIBUS configura-
- tion tool (download the GSD file from www.anybus.com).
- Configure and start the PROFIBUS network.

### **Technical Details**

- Power supply: 24 V DC (-15% to +20%).
- Power consumption: Maximum power consumption is 300 mA @ 24 V DC. Typical power consumption: 150 mA @ 24 V DC.
- Surrounding temperature 70 degrees C @ 225 mA @ 24 V DC.
- Protective Earth (PE): Internal connection to PE via DIN-rail or, if the DIN-rail can not be used, via the power connector. Note: Make sure the DIN-rail is properly connected to PE.

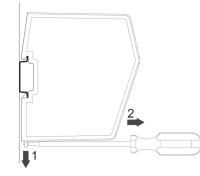
For maintenance and support, contact the HMS support department. Contact information is available at the support pages on www.anybus.com.

### **DIN-rail Mounting**



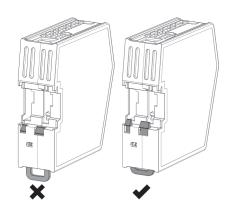
Make sure the DIN-rail fastening mechanism on the back of the module is in a fixed and closed position, i. e. pushed all the way up.

To mount the module, first hook it on to the DIN-rail (1), then push it against the DIN-rail to make it snap on (2).



To unmount the module, a screwdriver is needed. Use the screwdriver to push the DIN-rail fastening mechanism on the back of the module down until it locks in a fixed and open position (1). Then unhook the module from the DIN-rail (2).

**Note:** Do not leave the module with the DIN-rail fastening mechanism in a fixed and open position. This may eventually wear the fastening mechanism out so it cannot be used efficiently. Be sure to push the DIN-rail fastening mechanism back into the fixed and closed position after unmounting the module, according to the picture below.



# Additional Installation and Operating Instructions

Supply voltage: The X-gateway requires a regulated 24 V (20.4 V to 28.8 V) DC power source.

Field wiring terminal markings (wire type (Cu only, 14-30AWG) "Use 105°C copper (CU) wire only" Terminal tightening torque (5-7 lb-in)).

Use in Overvoltage Category I Pollution Degree 2 Environment.

Install in an enclosure considered representative of the intended use. To comply with ATEX directives, the equipment must be installed within an IP54 enclosure and must be installed with a transient suppressor on the supply that does not exceed 140% (33.6 V DC) of the nominal rated supply voltage.

Operating temperature/Surrounding temperature: -25 to +60 degrees C @ 300 mA @ 24 V DC.

In order to sustain high operating temperatures of up to 70 degrees C @ 225 mA, the module must be mounted vertically (power connector facing upwards) to ensure optimal vertical airflow. Additionally, if the module is mounted side-by-side with other modules, this will affect the module's ability to sustain high operating temperatures.

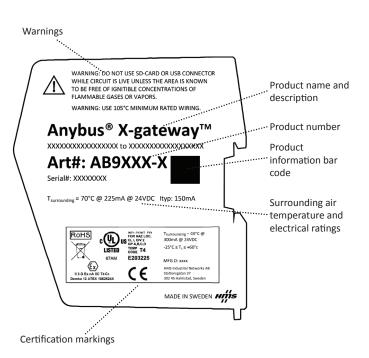
Maximum surface temperature: 135 degrees C.

Pressure: 850 - 1050 millibar.

This product is designed to safely operate in class I, division 2 Hazardous location according to ANSI/ISA 12.12.01-2011 and category 3, zone 2 according to EN 60079-0 and EN 60079-15.

SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A, B, C AND D HAZ-ARDOUS LOCATIONS, OR NONHAZARDOUS LOCATIONS ONLY.

### Label Markings



### Warnings

- WARNING EXPLOSION HAZARD SUBSTITUTION OF ANY COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.
- WARNING EXPLOSION HAZARD WHEN IN HAZ-ARDOUS LOCATIONS, TURN OFF POWER BEFORE REPLACING OR WIRING MODULES.
- WARNING EXPLOSION HAZARD DO NOT DIS-CONNECT EQUIPMENT WHILE THE CURCUIT IS LIVE OR UNLESS THE AREA IS KNOWN TO BE FREE OF IGNITABLE CONCENTRATIONS.
- WARNING EXPLOSION HAZARD- THE USB CON-NECTOR IS NOT FOR USE IN HAZARDOUS LOCA-TIONS AND FOR TEMPORARY CONNECTION ONLY. DO NOT USE, CONNECT OR DISCONNECT UNLESS THE AREA IS KNOWN TO BE NONHAZARDOUS. CONNECTION OR DISCONNECTION IN AN EXPLO-SIVE ATMOSPHERE COULD RESULT IN AN EXPLO-SION.
- WARNING EXPLOSION HAZARD DO NOT CON-NECT OR DISCONNECT THE SD CARD UNLESS THE AREA IS KNOWN TO BE NONHAZARDOUS. CONNECTION OR DISCONNECTION IN AN EXPLO-SIVE ATMOSPHERE COULD RESULT IN AN EXPLO-SION.
- WARNING INSTALL IN AN ENCLOSURE CON-SIDERED REPRESENTATIVE OF THE INTENDED USE. TO COMPLY WITH ATEX DIRECTIVES, THE EQUIPMENT MUST BE INSTALLED WITHIN AN IP54 ENCLOSURE AND MUST BE INSTALLED WITH A TRANSIENT SUPPRESSOR ON THE SUPPLY THAT DOES NOT EXCEED 140% (33.6 V DC) OF THE NOMINAL RATED SUPPLY VOLTAGE.

# **UL** Certification



### **Atex Certification**

EX nA IIC T4 Gc



Demko 12 ATEX 1062524X

# **EMC** Compliance (CE)



This product is in accordance with the EMC directive 2004/108/EC through conformance with the following standards:

EN 61000-6-4 (2007)
 Emission standard for industrial environment
 EN 55016-2-3, Class A (2006)

 EN 61000-6-2 (2005)
 Immunity for industrial environment EN 61000-4-2 (2009)

 EN 61000-4-3 (2006)
 EN 61000-4-4 (2004)
 EN 61000-4-5 (2005)
 EN 61000-4-6 (2007)

HMS Industrial Networks AB Stationsgatan 37 302 45 Halmstad Sweden



Further information and documents about this product can be found at the product pages on www.anybus.com.