

PRODUCT DATA SHEET

Gateway (GW 1xxx)

The GW 1xxx is a Data Acquisition Server & Gateway which collects data from a network of Remote Detectors, and stores the results in an internal, non-volatile database. The data can be displayed locally in real-time on a connected monitor, sent to the MERIDIAN Cloud, or collected later via MTConnect®.

The GW 1xxx gateway is built on industrial-grade Hardshell Fanless Technology with a Ultra-Small Form Factor to easily fit within the tightest space requirements of industrial automation and machinery. Featuring a gigabit LAN port and a gigabit WAN port, the GW 1xxx can monitor a large network of Remote Detectors while simultaneously connecting to the most advanced networks.

With the built-in oscilloscope tool, there is no need to shut down production to plug in external diagnostic equipment. Technicians can easily view live scale conditions to rapidly diagnose problems and keep your machine in production.

- **Real-time health display**
- **24/7/365 monitoring of scale signals**
- **View live signal conditions with built in oscilloscope**
- **Real time email alerts^{1, 2}**
- **Avoid manufacturing process interruptions**
- **Identify noise caused by contaminated power**
- **Capture intermittent signal and power faults**
- **Easy Plug-n-Play installation**
- **Embedded MTConnect® Adapter**



1. Available when connected to a host SMTP server

2. MTConnect® alerting can be achieved using a dashboard tool such as Grafana

GW 1xxx Hardware

DURABLE AND VERSATILE

The industrial-grade Hardshell Fanless Technology found on the GW 1xxx not only looks good, but also protects the system from dust, debris, chemical, and moisture ingress. Its unique cast aluminum chassis efficiently dissipates heat while allowing for space-saving mounting options such as VESA, wall, and DIN rail mounting.



Ultra-Small Form Factor

The GW 1xxx was built with a sub-2" profile to fit within the tightest space requirements of industrial automation and machinery. Furthermore, the system weighs less than a pound which means you can install it wherever it's needed.



Sealed, Fanless Design

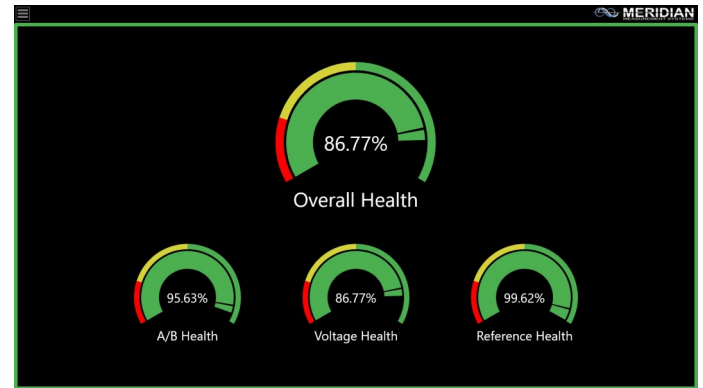
Hardshell Fanless Technology seals components in a durable, ventless enclosure that cools and protects the system. Measuring at just 34 mm x 115 mm x 82 mm, the GW 1xxx installs virtually anywhere.



GW 1xxx Display Features

Clear Health Display

The GW 1xxx features an easy to read real-time health gage display to allow for quick visual confirmation of system health from anywhere in the room. The live health gages display the most recent signal analysis gathered from each connected Remote Detector. Each gage contains a black tick mark which shows the minimum value observed since the gages were last reset.

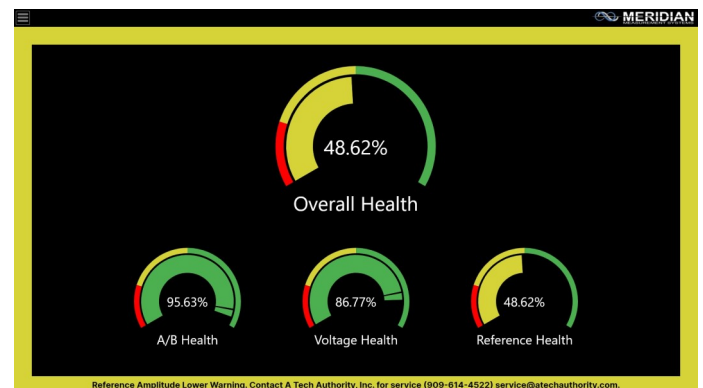


Built-in oscilloscope

The GW 1xxx has a built-in oscilloscope which technicians can use to easily view scale conditions and rapidly diagnose problems, getting your machine back into production quickly. The oscilloscope screen not only shows the scale's Lissajous and reference mark, it also shows high resolution samples of the 5 volt supply to aid in identification of noise related issues.

Distinct alerts

Any time an axis predicts a warning or fault state, the screen will display a colored border to indicate clearly to the operator that attention is required. A message at the bottom of the screen displays detailed information about the event and provides instructions of whom should be contacted for service. The service provider contact information is customizable in the system settings.



MTConnect®

MTConnect® is a communication standard used in Industry 4.0. For applications which require onsite data storage or internet isolation, MTConnect® is a recommended solution. The GW 1xxx and all Remote Detectors include a built-in MTConnect® Adapter for easy integration into any MTConnect® infrastructure. Each Gateway and Remote Detector can be customized to adapt to fit any Devices.xml Schema. Static IP configuration and customizable signal tolerances can also be configured.

The build-in MTConnect® Adapter outputs standard SHDR Pipe Delimited data which can be read by any standard MTConnect® Agent.

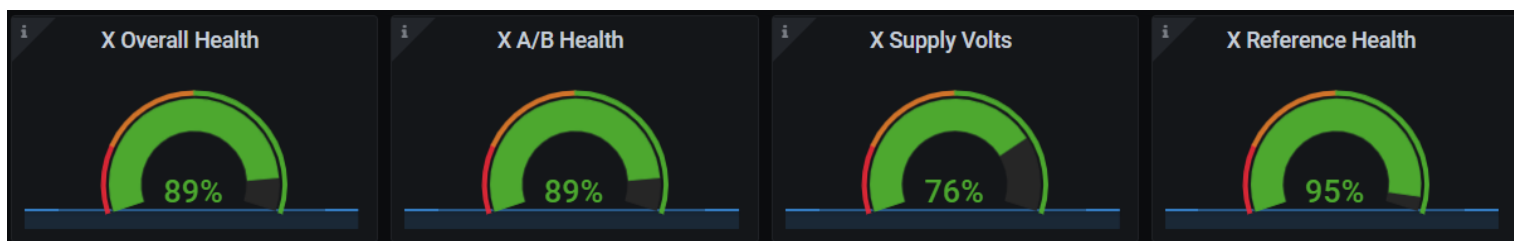
Sample RD Adapter Output

```
|801F12980628-overall-health|89.42|801F12980628-ab-health|89.42|801F12980628-volt-health|76.88|801F12980628-ref-health|95.23
```

Sample Agent Query

```
<ComponentStream component="Linear" name="X" componentId="x1">
  <Samples>
    <Encoder dataItemId="x2" timestamp="2021-04-09T15:28:52.080142Z" name="801F12980628-overall-health" sequence="22655473">89.42</Encoder>
    <Encoder dataItemId="x3" timestamp="2021-04-09T15:28:52.080142Z" name="801F12980628-ab-health" sequence="22655473">89.42</Encoder>
    <Encoder dataItemId="x4" timestamp="2021-04-09T15:28:52.080142Z" name="801F12980628-volt-health" sequence="22655473">76.88</Encoder>
    <Encoder dataItemId="x5" timestamp="2021-04-09T15:28:52.080142Z" name="801F12980628-ref-health" sequence="22655473">95.23</Encoder>
  </Samples>
</ComponentStream>
```

Sample Grafana Dashboard





GW 1xxx Technical Specifications

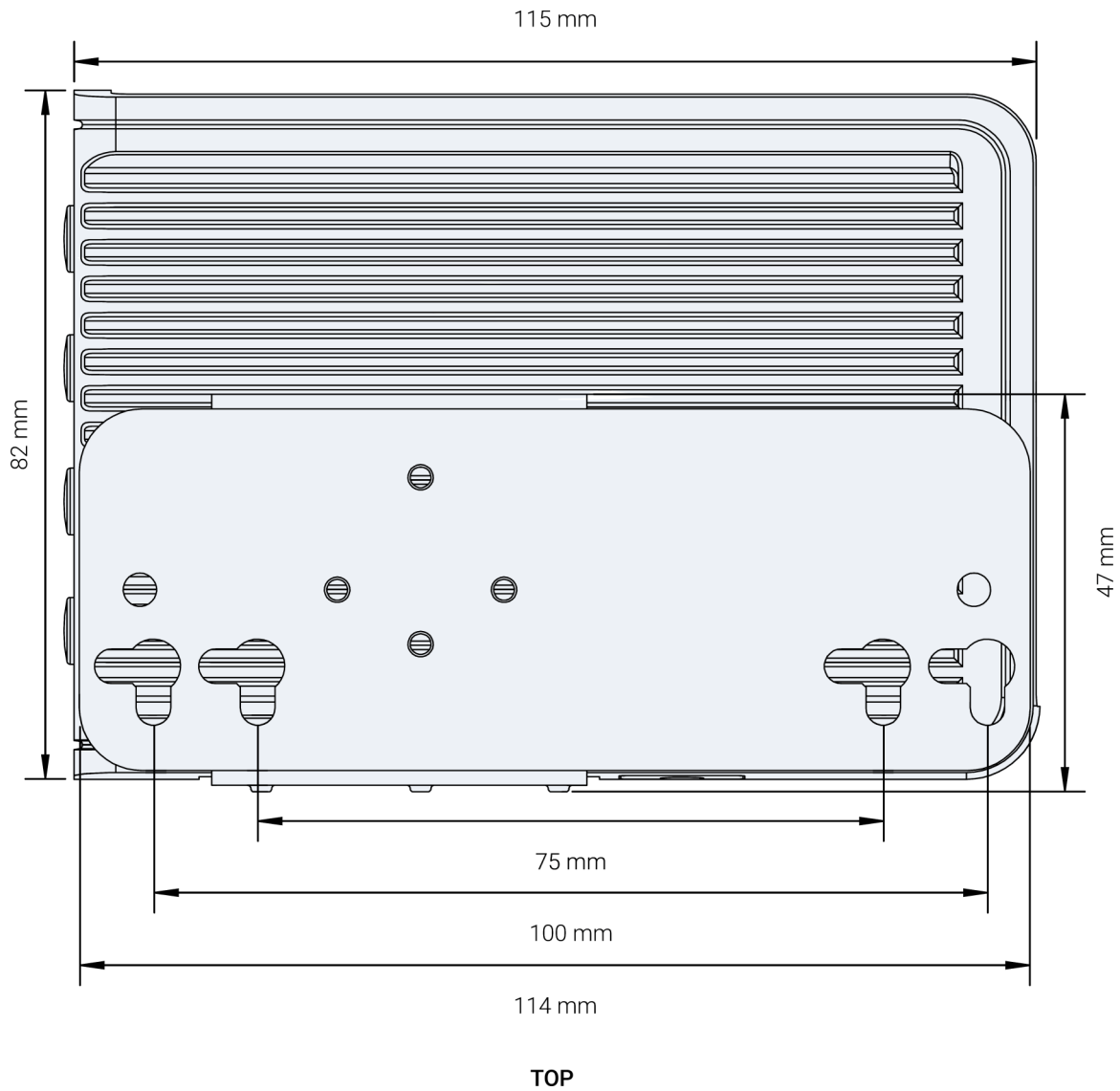
PRODUCT	GW 1001	GW 1002	GW 1003	GW 1011	GW 1012	GW 1013
HARDWARE						
Hardware Platform	ONLOGIC CL200G ¹			ONLOGIC CL210G ¹		
I/O SPECIFICATIONS						
Front I/O Connections	-			1 Gb WAN port		
	1 mini-DisplayPort™			2 mini-DisplayPorts™		
	2 USB 3.0 ports 1 Gb LAN port 1 Audio Jack					
Side I/O Connections	1 MicroSD Slot 1 COM port (RS-232) 1 USB 2.0 port 1 DC input jack (12 V)					
NETWORK SPECIFICATIONS						
WAN Connectivity	-			Gb Ethernet		
	-	WiFi 802.11ac	4G LTE	-	WiFi 802.11ac	4G LTE
LAN Connectivity (Remote Detector Network)	Gb Ethernet					
PHYSICAL SPECIFICATIONS						
Dimensions (W x D x H)	24.52in [115mm] x 3.23in [82mm] x 1.34in [34mm]					
Operating Temperature	0°C — 40°C					
IP Rating	IP 50					
Mounting Options	DIN-mount VESA-mount Wall-mount					
POWER SPECIFICATIONS						
Supply	12 VDC ±10%					
Maximum Power Consumption	36 W					

1. See the ONLOGIC Declaration of Conformity on the last page



GW 1xxx Dimensions

All dimensions are in mm.



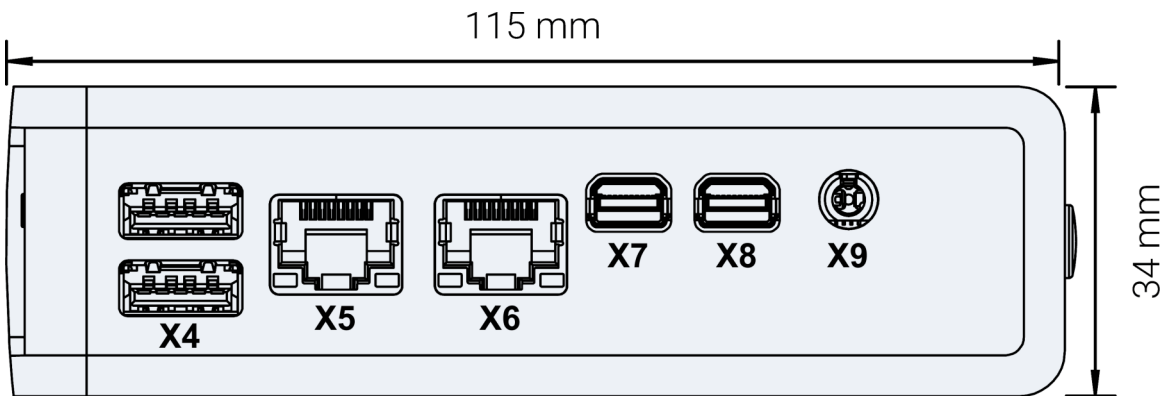


GW 1x1x Dimensions

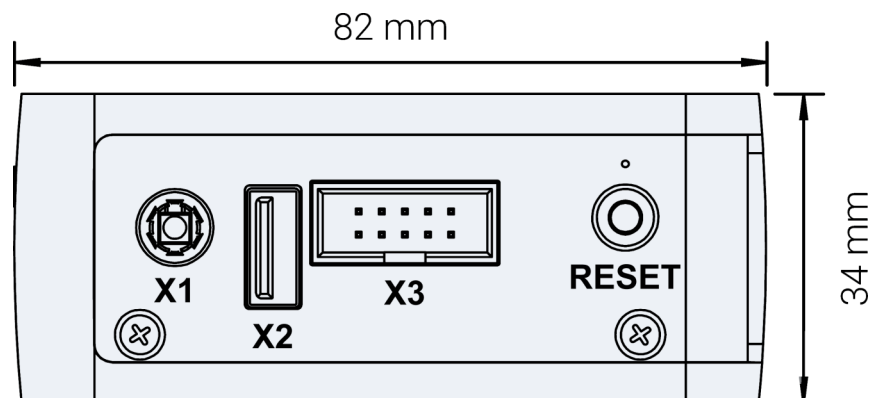
All dimensions are in mm.

FRONT I/O CONNECTIONS	
X4	2 USB 3.0 Ports
X5	1 Gb WAN Port
X6	1 Gb LAN Port
X7	1 Mini-DisplayPort
X8	1 Mini-DisplayPort
X9	1 Audio Jack

SIDE I/O CONNECTIONS	
X1	1 DC Input Jack (Barrel 5.5mm x 2.5mm)
X2	1 USB 2.0 port
X3	1 COM Port (RS-232)



FRONT



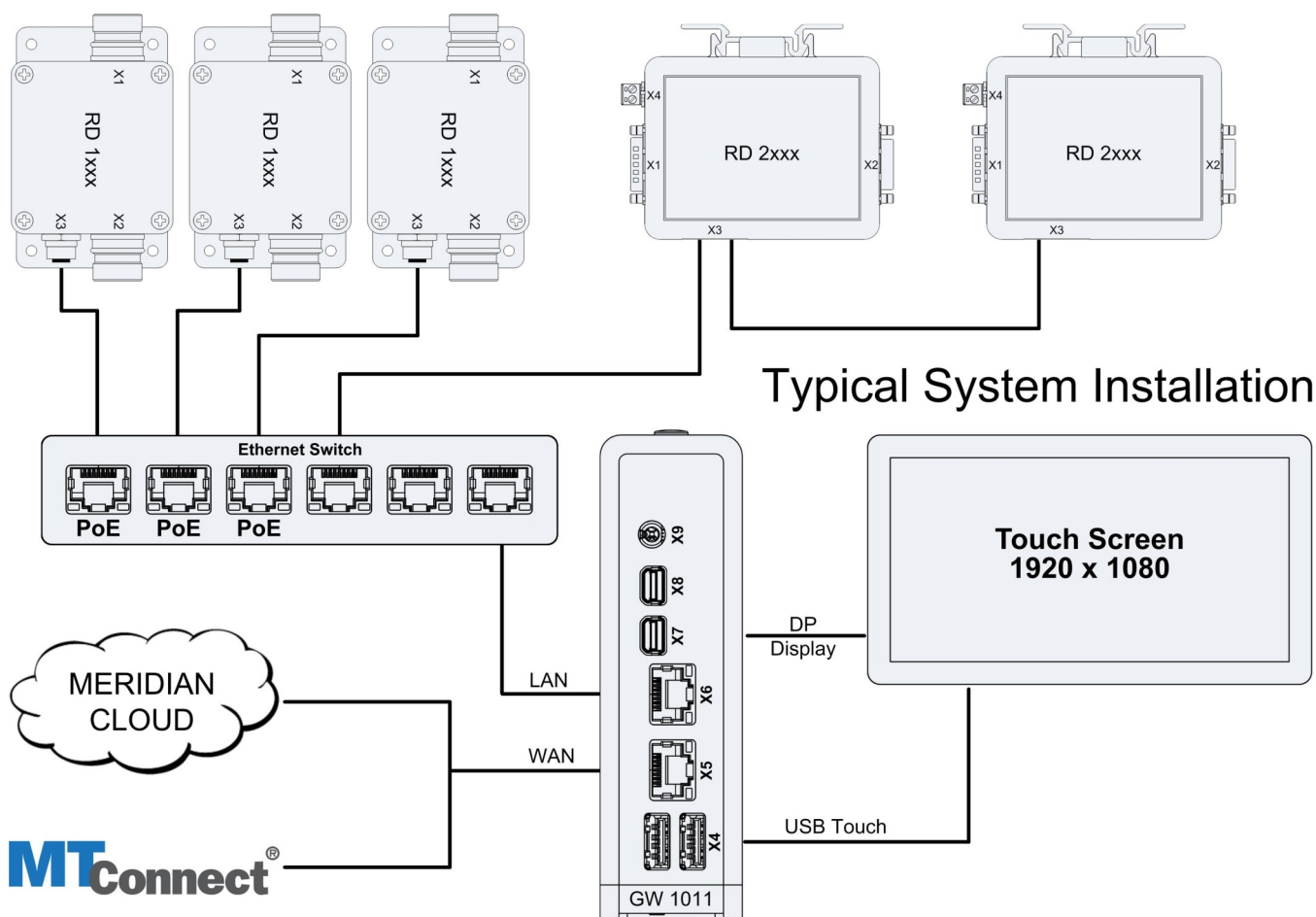
SIDE



GW 1x1x Electrical Connections

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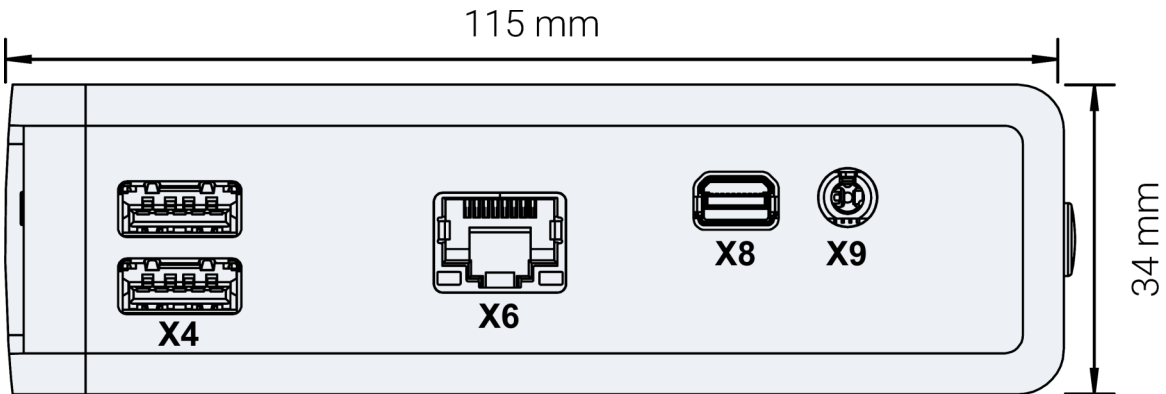


GW 1x0x Dimensions

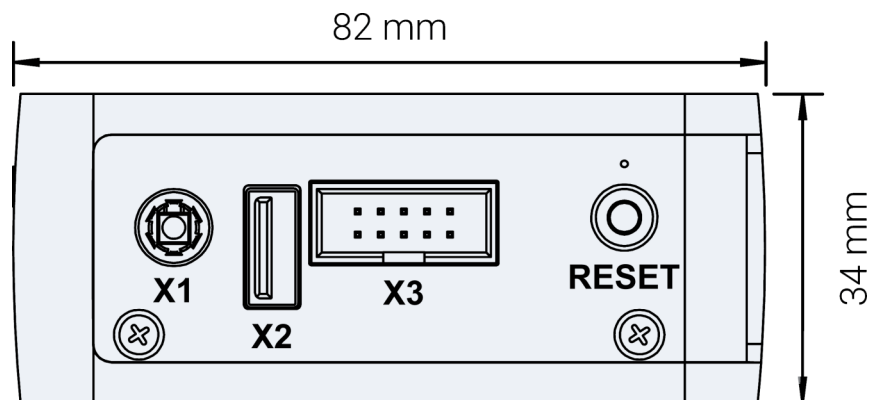
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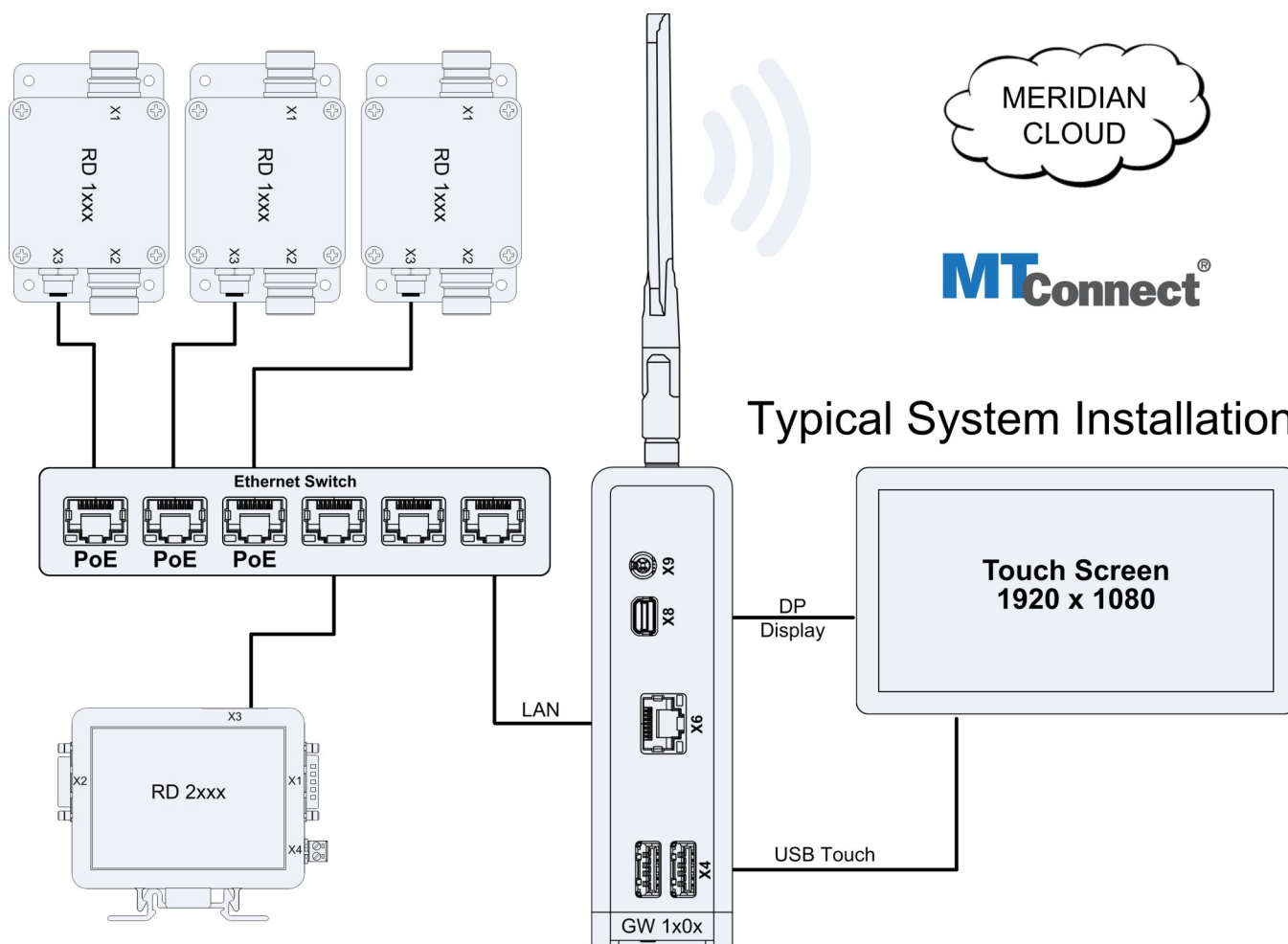
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GW 1xxx Hardware Declaration of Conformity



Declaration of Conformity

We of:
OnLogic, Inc.
35 Thompson Street
South Burlington, VT 05403
USA

OnLogic, BV
De Boedingen 39,
4906 BA Oosterhout
The Netherlands

hereby declare that Equipment:

Industrial Fanless PC model(s): xxxxxCL200Gxxxxxxxxxxxxx (where x is any alphanumeric character, "-" or blank designating configuration differences), xxxxxCL210Gxxxxxxxxxxxxx (where x is any alphanumeric character, "-" or blank designating configuration differences)

is in conformity with the applicable requirements of the following Directive(s) and standards:

Low-Voltage (2014/35/EU)

EN 62368-1:2014 / A11:2017

Electromagnetic Compatibility (2014/30/EU)

EN 55024:2010

EN 55032:2015/AC:2016 Class A

EN 61000-4-4:2012

EN 61000-4-5:2014

EN 61000-4-6:2014+AC:2015

EN 61000-4-8:2010

EN 61000-4-2:2009

EN 61000-4-3:2006+A1:2008+A2:2010

EN 61000-4-11:2004

EN 61000-3-2:2014 Class D

EN 61000-3-3:2013

Radio Equipment (2014/53/EU)

EN 55035:2017

EN 301 489-1 V2.2.0 (2017-03) Draft

EN 301 489-17 V3.2.0 (2017-03) Draft

EN 61000-4-4:2012

EN 61000-4-5:2014

EN 61000-4-6:2014+AC:2015

EN 61000-4-8:2010

EN 61000-4-11:2004

EN 61000-3-2:2014 Class D

EN 61000-3-3:2013

RoHS 3 (2015/863/EU)

EN 63000:2018

WEEE (2012/19/EU)

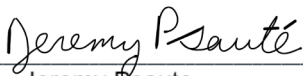
EN 50419:2006

EN 50625-1:2014

Reports: E490677-A6003-CB-1, BTL-EMC-1-1804T102, BTL-ETSE-1-1804T102

I hereby declare the equipment named above has been designed and/or tested to comply with the relevant sections of the above referenced specifications. The unit complies with all applicable Essential Requirements of the Directives.

By:


Name: Jeremy Psauté
Title: Regulatory Engineer

Date: 2021-01-01
(YYYY-MM-DD)