

DMI-412

12.1" Railway Intelligent HMI



VDS Rail
The onboard networking
company



The DMI-412 Railway Intelligent HMI is designed to provide a robust and versatile solution for rolling stock applications. With support for a wide operating voltage range and a top-level mechanical enclosure, the DMI-412 is ready for harsh environments and compliant with EN 50155.

Options for several interfaces such as Ethernet, serial line, USB and the support for industry standard operating systems make the DMI-412 capable of empowering many on-board applications.

Highlights

- Rolling Stock applications
- EN 50155 compliant
- Operational Temperature: $-25^{\circ}\text{C} \div +70^{\circ}\text{C}$ according to EN 50155 class OT3
- Wide operating voltage range
- Resistive / capacitive touch screen
- XGA color TFT LCD panel
- Automatic brightness adjustment
- Dual core / Quad core processor
- One (1) 10/100BASE-T(X) Ethernet port.
Two (2) Ethernet ports available as option
- One (1) USB 2.0 port
- One (1) Serial communication interface port available
- Rated IP65 on front panel

Technical specifications

PHYSICAL DATA

Power supply voltage (insulated)	Nominal 24/72/96/110 Vdc Range according to EN 50155 2W2C - D-Sub connector
Ethernet port	10/100BASE-T(X) - M12, female, 4-ways, D-coding connector
Service port	USB 2.0 - Type-A connector
Serial port (option)	RS232 / RS422 / RS485 - D-Sub connector
Interruption voltage supply class	S2, according to EN 50155
Power consumption	30 W max
Overall dimensions	325 x 255 x 60 mm
Weight (max)	4 kg
Operating temperature	$-25^{\circ}\text{C} \div +70^{\circ}\text{C}$ ($+85^{\circ}\text{C}$ for 10 min. according to EN 50155 class OT3 with extended operating temperature ST1)
Relative humidity (non-condensing)	0 % \div 95 %
Storage temperature	$-40^{\circ}\text{C} \div +85^{\circ}\text{C}$
Degree of protection	IP65 on front panel

EMBEDDED PROCESSOR UNIT

CPU	Intel Celeron Dual Core / Quad Core @1.0 GHz or equivalent
L2 Cache memory	2 MB
RAM	2 GB
Flash memory	8 GB Disk on Module
Operating systems	Linux or Windows Embedded

DISPLAY PHYSICAL DATA

Type	Color TFT LCD
Size	12.1"
Resolution	1024 x 768 pixels (XGA)
Colors	262K / 16.2M
Contrast	1000:1 (typ)
Brightness	600 cd/m ² (typ)
Touch Screen	Resistive / Capacitive
Sensors	Brightness sensor
Speakers	Built-in, 2 W

APPROVALS / COMPLIANCE

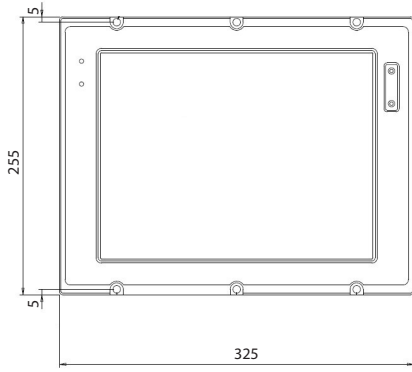
EN 50155	Railway Applications (Electronic equipment used on rolling stock)
EN 50121-3-2	Electromagnetic compatibility rolling stock apparatus
IEC 60068-2-1	Environmental testing: Tests - Test Ad: Cold
IEC 60068-2-2	Environmental testing: Tests - Test Bd: Dry heat
EN 60068-2-30	Environmental testing: Tests - Test Db variant 2 - Damp heat
EN 61373	Shock & Vibration - Category 1 class B
EN 50124-1	Insulation coordination
EN 45545-2	Fire & Smoke

DMI-412

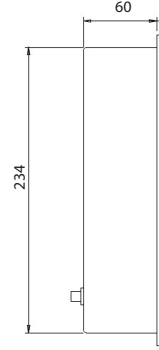
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Train Control Desk Mounting



FRONT VIEW



SIDE VIEW