

DMI-410

10.4" RAILWAY INTELLIGENT HMI



VDS Rail
The onboard networking
company

The DMI-410 Railway Intelligent HMI is designed to provide a robust and versatile solution for rolling stock applications. With support for a wide range of operating voltage and a top-level mechanical enclosure, this Railway Intelligent HMI is ready for harsh environments and is compliant with EN50155. Options for several interfaces such as Ethernet, serial line and the support for industry standard operating systems make the DMI-410 capable of empowering many on-board applications.



HIGHLIGHTS

- Rolling Stock applications
- EN50155 compliant
- Operational temperature $-25^{\circ}\text{C} \div 70^{\circ}\text{C}$ according to EN50155 T3 class
- Wide operating voltage range
- Atom class processors
- Automatic Brightness adjustment
- Standard interfaces available (Ethernet 10/100 Mbps, USB 2.0, ...)
- Rated IP65 on Front Panel
- Linux and Windows Embedded Supported
- Touch Screen

Technical Specifications

Approvals/Compliance

Governing standard	EN 50155 Railway Applications (Electronic equipment used on rolling stock)
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Approvals/Compliance (EMC)

Electromagnetic compatibility rolling stock apparatus	EN50121-3-2
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Approvals/Compliance (ENVIRONMENT)

Environmental test	EN60068-2
Guidelines for fire protection - Evaluation of fire behaviour of materials	EN45545-2
Shock & Vibration	EN61373
Temperature range	$-25^{\circ}\text{C}/+70^{\circ}\text{C}$ (+85°C for 10 minutes according to EN50155 T3 class)

Display

Colours	256K / 16.2M
Contrast	700:1 (Typ)
Dimming	Max \div 30 cd/m ²
Brightness	400 cd/m ² (Typ)
Resolution	800x600 (SVGA)
Size	10.4"

Embedded Processor Unit

CPU	AMD Dual Core GX210HA @ 1.0 GHz or INTEL Atom Single Core E3815 @1.4GHz
L2 Cache memory	1 MB / 512 KB
Flash memory	2 GB Disk on Module
RAM	1 GB
Input peripherals	USB
LAN	1xEthernet 10/100 Base-T port
Sensors	Brightness sensor
Speakers	Built-in, 2 Watt
Service port	USB 2.0 port
Serial port	RS232/RS422/RS485 ports

Operating Systems

	Linux (Kernel 2.6.x)
	Windows Embedded

Power Supply

	24 Vdc
Nominal Voltages	72 Vdc
	96/110 Vdc

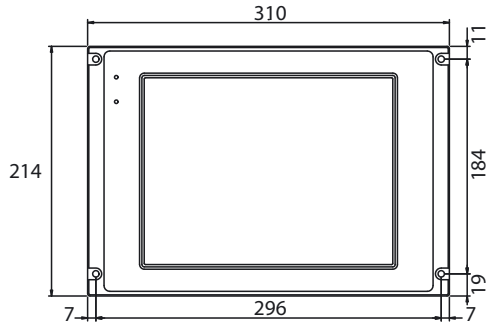
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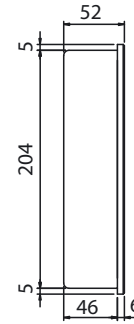
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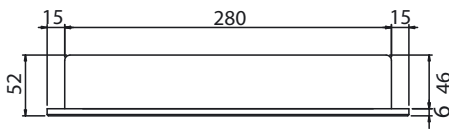
Train Control Desk mounting



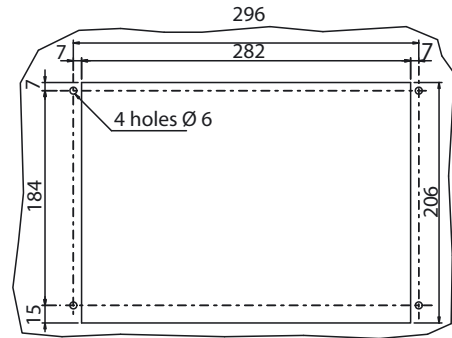
FRONT VIEW



SIDE VIEW



TOP VIEW



PANEL CUT OUT

Ordering Codes

DM410M	DMI-410 AMD Dual Core GX210HA@1.0GHz, 1 GB RAM, 2 GB SSD, 24 Vdc, Resistive Touch Screen	DM04FM	4 GB Disk On Module
DM410N	DMI-410 AMD Dual Core GX210HA@1.0GHz, 1 GB RAM, 2 GB SSD, 72 Vdc, Resistive Touch Screen	DM08FM	8 GB Disk On Module
DM410P	DMI-410 AMD Dual Core GX210HA@1.0GHz, 1 GB RAM, 2 GB SSD, 96/110 Vdc, Resistive Touch Screen	DMCA	CAN BUS
DM410R	DMI-410 INTEL Single Core E3815@1.46GHz, 1 GB RAM, 2 GB SSD, 24 Vdc, Resistive Touch Screen	DM2ET	2nd Ethernet 10/100 Mbps port
DM410S	DMI-410 INTEL Single Core E3815@1.46GHz, 1 GB RAM, 2 GB SSD, 72 Vdc, Resistive Touch Screen	DM02MM	2 GB RAM
DM410T	DMI-410 INTEL Single Core E3815@1.46GHz, 1 GB RAM, 2 GB SSD, 96/110 Vdc, Resistive Touch Screen	DMOS01	Windows Embedded OS (w/o License)
DM0064	RS422, 2 wires optoisolated	DMOS02	Linux (Kernel 2.6)
DM0065	RS485, 4 wires optoisolated	DM0069	2W2C power supply mating connector