

LAN

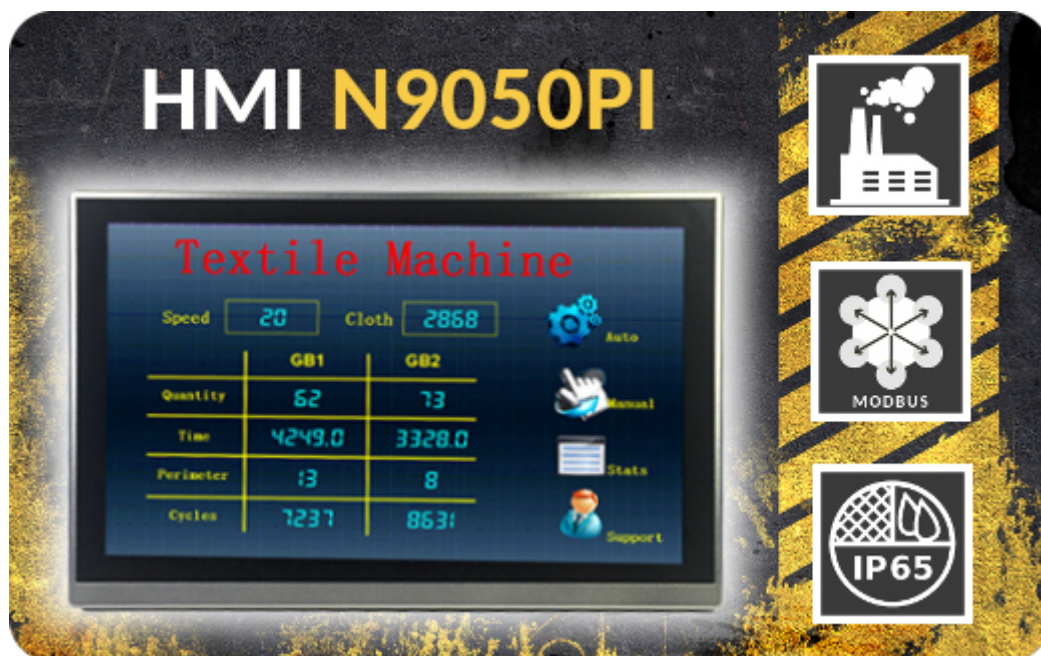


Industrial Control Panel HMI N9050PI

Category:	HMI Operator Interface Panels
Manufacturer:	Mobilator
Color:	Gray
Processor:	ARM A9 Core 1.4GHz
Communication protocols:	Modbus
ROM:	8GB EMMC
RAM:	512MB DDR3
Screen size:	15"
Resolution:	1920x1080px
Touchscreen:	4-wire resistive
Graphic Card:	-----
LAN:	Yes
Bluetooth:	No
Wi-Fi:	No
Power:	24V
Supported OS:	Windows CE 7.0 / Linux / WECON OS (Dedicated)
Installed OS:	-----
Dimensions:	420mm x 310mm x 62mm
Weight:	~3.1kg

Expansion:	-----
Connectors:	1x USB 2.0 Host1x USB 2.0 Client2x COM1x RJ-45 LAN
Fanless:	Yes
Humidity:	10% - 90%
Temp:	-20°C - 60°C
Storage Temp:	-20°C - 70°C
IP Norm:	IP65 (front panel)
Contrast Ratio:	500:1
Brightness:	220cd/m ²
Color Resolution:	16000k (24bit)
Housing material:	ABS
Power Consumption:	Less than 10W
Others:	IP camera support Remote control support Wi-Fi support
PLC:	No
Digital I/O (PLC):	-----
Analog I/O (PLC):	-----
Output type (PLC):	-----
COM port (PLC):	-----

Product from the Archive - production finished



Specification

Description

Available versions

Protection

Communication

Application

Industrial operator panels also known as control panels are devices that control other electrical devices using convenient and intuitive touch interface. Thanks to its robust design, these devices are suitable for use even in harsh environments. Model N9050PI has a IP65 standard which classifies and rates the degree of protection provided against intrusion (body parts such as hands and fingers), dust, accidental contact, and water by mechanical casings and electrical enclosures.

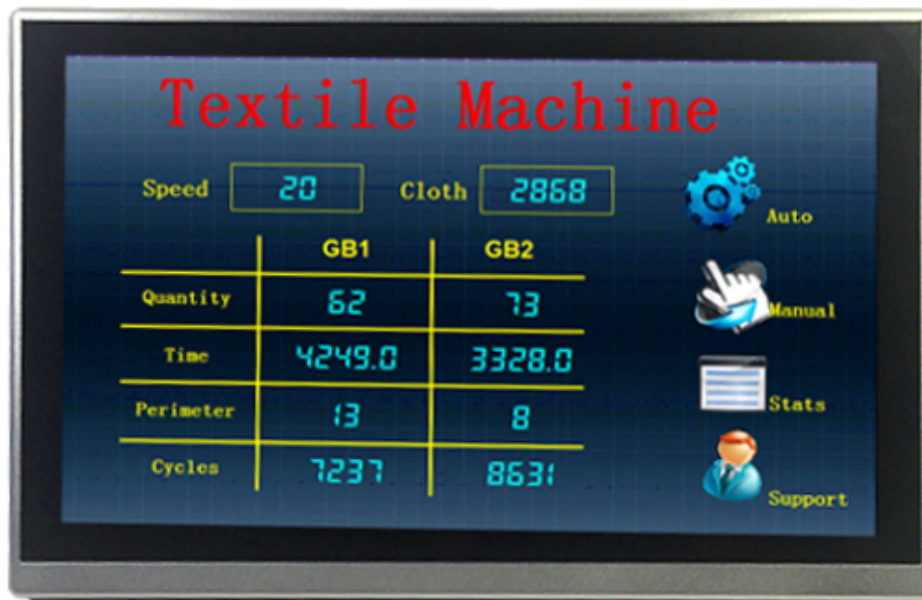
Specification

Processor	ARM Cortex A9 1.4GHz
Screen	15" (1920x1080), Resistive
RAM	512MB DDR3
Flash memory	8GB EMMC
Connectors	USB 2.0 Host USB 2.0 Client COM: RS232/422/485 RJ-45 LAN SD Card
Operating system	Windows CE 7.0 Linux WECON OS (Manufacturer's dedicated system)
Dimensions	420mm x 310mm x 62mm
Weight	~3.1kg
Protection	IP65 (Front panel)
PLC Protocols	Standard Modbus
Other	CANBUS (option) IP camera support Remote control support Wi-Fi support

Check "Available versions" tab to see available configurations of this device. To get more information about this product click "Ask about the product" or use the [Contact form](#).



Description



Multitasking OS

HMI can be equipped with a Windows CE, Linux or WECON operating system, which ensures maximum efficiency of the device and easily copes with multiple processes simultaneously. Convenient interface makes the operator panels as much intuitive as possible.

Efficient processor

An important advantage of the HMI N9050PI is a powerful combination of small size with considerable capabilities through the use of the processor family ARM Cortex A9 with 1.4GHz clock speed, which, combined with 512MB of RAM gives us a powerful, multi-purpose, quality device for a low price.

Small size

HMI N9050PI is equipped with a 15 inch screen and the overall size of its design is only 420mm x 310mm x 62mm, with a cutout size of 381mm x 281mm and its weight is only 3.1kg. With such a small size it can be used in even if there is not much available space. In addition, HMI has the possibility to mount it on a wall for the greatest convenience and ease of access.

Solid construction

HMI enclosure is made from a specialized blend of ABS providing a very high resistance to mechanical damage. With this construction it is ready for use even in extreme conditions such as heat, cold or vibration at any time. In addition, the front panel of the device has IP65 international standard, which confirms the water resistance and a complete protection against dust.

Low power consumption

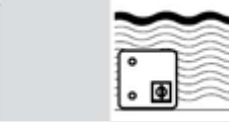
Using the latest technology, HMI N9050PI is designed for continuous operation with low power consumption of less than 10W at 24V.

Protection

IP65 RESISTANCE

IP stands for Ingress Protection and is essentially a rating system developed by the International Electrotechnical Commission or the IEC. The system is now being used to classify different degrees of protection against intrusion or immersion. The IP rating is usually followed by two digits. The first indicates the level of dust-resistance, the second water resistance. Dust-resistance levels goes from 0 up to 6 while water-resistance goes from 0 to 8.

No protection	0		0	No protection
Protection against any large surface of the body, such as the back of a hand	1		1	Protection against vertically dripping water
Protection from object > 12mm, e.g. Fingers or similar objects	2		2	Protection against vertically dripping water when device is tilted at an angle up to 15 degrees
Protection from object > 2.5mm, e.g tools, thick wires, etc.	3		3	Protection against direct sprays of water when device is tilted at an angle up to 60 degrees

Protection from object > 1mm, e.g. most wires, slender screws, large ants etc.	4		4	Protection from sprays and splashing of water in all directions
Dust protected - Ingress of dust is almost entirely prevented.	5		5	Protection from low pressure water projected from a nozzle with a 6.3mm diameter opening in any direction
Dust tight - No ingress of dust, complete protection against contact.	6		6	Protection from water projected in powerful jets from a nozzle with a 12.5mm diameter opening in any direction
—	7		7	Protected from immersion in water with a depth of up to 1 meter (or 3.2ft) for up to 30 mins
—	8		8	Protected from immersion in water with a depth of more than 1 meter

Work temperature	-10 - 60
Storage temperature	-30 - 70
Humidity	10% - 90%
Dust resistance (Front panel)	IP6x
Water resistance (Front panel)	IPx5

Available versions

Select a version tailored to your needs. Clicking on the hardware number configurations will redirect you to the product with parameters listed below. At the customer's request can be created configurations which are not available in the offer. Detailed parameters are available in the "Technical Data".

SUPPORT FOR INDIVIDUAL OPERATING SYSTEMS

	WECON OS
Development tool	PI Studio
Cost	Free
System tool	Display adjust Communication parameters configuration
Documentation	Yes
Technical support	Professional support for hardware and software development
Default screen	WECON factory sceen

	WINDOWS CE 7.0
Development tool	Visual Studio .NET
Cost	Free (not licensed) / Paid (licensed)
System tool	CETOOL tool
Documentation	Microsoft documentation
Technical support	Driver developmnet only
Default screen	Windows CE 7.0 desktop

	LINUX
Development tool	Qt
Cost	Free
System tool	No
Dokumentacja	No
Technical support	Driver developmnet only
Default screen	Standard Linux command line



MODBUS

Modbus is a serial communications protocol initially for use with programmable logic controllers (PLCs). Simple and robust, it has since become a standard communication protocol, and it is now a commonly available means of connecting industrial electronic devices. Modbus enables communication among many devices connected to the same network, for example a system that measures temperature and humidity and communicates the results to a computer. Modbus is often used to connect a supervisory computer with a remote terminal unit (RTU) in supervisory control and data acquisition (SCADA) systems.

Connectors:

CONNECTOR TYPE	QUANTITY
USB 2.0 Host	1
USB 2.0 Client	1
RS232/422/485	1
RS232/485	1
RJ-45 LAN	1
DC 24V	1

COM Ports:

PORT NUMBER	SUPPORTED PROTOCOLS
COM1	RS232/RS485 or RS232/RS422
COM2	RS232/485
COM3 (COM2 port)	RS485



PLC

PLC is a universal microprocessor device designed to control the operation of the machine or technological equipment. PLC must be adapted to the HMI device by introducing into its memory the desired algorithm for operation of the plant. A characteristic feature of the PLC controller distinguishes this from other drivers computer is cyclic circulation of program memory. The algorithm is stored in a dedicated controller programming language. You can change the algorithm by changing the contents of program memory. The driver provided with a suitable number of input circuits gathering information on the object status and requests service and the appropriate number and type of output devices connected to the actuators, signaling or data.

PLC is not included in the standard equipment - it must be purchased separately.

REMOTE CONTROL

The HMI N9050PI allows you to remotely connect to your device via Ethernet, allowing you to fully control the HMI and display its screen in real-time on a device

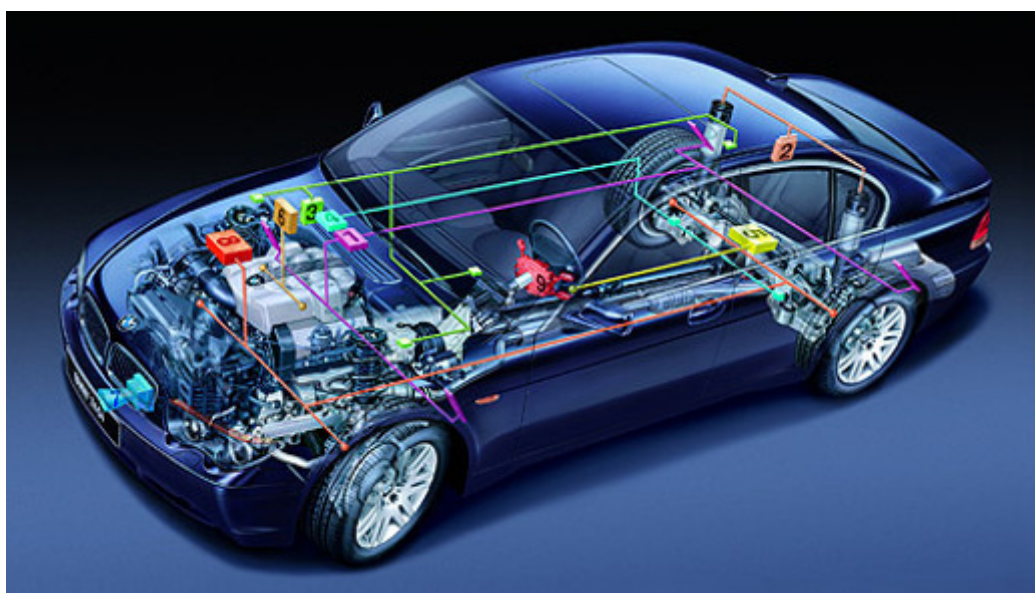
connected to it via a web browser. With this solution, you can connect several devices to one main computer and manage the network from one place.

IP CAMERA SUPPORT



IP cameras are devices that record and transmit live video directly over the IP network, allowing authorized users to observe on-site or off-site. View, save and manage video from this camera is done through a standard IP-based network infrastructure. The HMI N9050PI allows you to connect this camera using an ethernet port so that you can view and control the camera image directly on the panel screen.

CANBUS SUPPORT (OPTION)



CAN is an asynchronous serial bus for data exchange. It has been designed for the automotive industry to increase the reliability of systems such as ABS and engine control. This is commonly used in a variety of fields, primarily in the automotive

industry, where a digital bus is based on the CAN bus. It is the primary aggregate medium for sensors, actuators, and auxiliaries. The CAN standard priority technology allows you to delimit control on one side of extremely important components, such as airbags, on the other hand, trivial issues such as the transmission of data between additional equipment.

Application



Warehouse

Thanks to its transparent panel, it can be used to connect multiple devices in the adapted to the small form, this rotation allows its robust design is perfectly designed for the harsh conditions prevailing in these areas. Due to its wide range of functions, this device will not prevent to save everything working in typical work flawlessly even in polluted environments.

available in the **Technical data** tab.

Thanks to the ease with which it can be adapted to specific tasks, it's wide range of functions and mediation between different processes, giving you a wide range of possibilities.

