Mobile.: +48 508 235 505
e-mail: sklep@mobilator.pl

Industrial Operator Panel HMI EX43H + PLC v.7

Category:	HMI Operator Interface Panels
Manufacturer:	Mobilator
Supported OS:	Windows CE 5.0
Installed OS:	Windows CE 5.0
Screen size:	4.3"
Resolution:	480x272px
Brightness:	300cd/m^2
Touchscreen:	4-wire resistive
Processor:	ARM Cortex A9 640MHz
Graphic Card:	-----
RAM:	64MB
ROM:	128MB
IP Norm:	IP65
Temp:	-20°C - 60°C
Storage Temp:	-20°C - 70°C
Humidity:	20% - 90%
Others:	-----
LAN:	Nie

Bluetooth:	Nie
Connectors:	1x USB Mini (for HMI programming)1x USB 2.0
Communication protocols:	Mitsubishi PLCModbus
PLC:	Yes - Integrated
Digital I/O (PLC):	12/12
Analog I/O (PLC):	Sold separately (see Producer acessories tab), max. 4/2
Output type (PLC):	Relay
COM port (PLC):	1x RS232
Temperature sensor (PLC):	Yes - Thermocouple EK/PT100/NTC10K/50K/100K
Expansion:	None
Power:	24V
Power Consumption:	Lower than 3W
Contrast Ratio:	400:1
Color Resolution:	65536
Housing material:	PC/TPU
Color:	Grey
Dimensions:	134x102x30mm
Fanless:	Yes
Weight:	~400g

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 electronical devices using convenient and intuitive touch interface. Thanks to its robust design, these devices are suitable for use even in harsh environments. Model EX43H 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

HMI

CPU	ARM Cortex A9 640MHz
RAM	64MB
ROM	128MB
Connectors	Mini USB | USB 2.0 | RS232 (optional)
Operating System	Windows CE 5.0
Dimensions	134x102x30mm
Weight	~400g
Protection class	IP65 (front panel)
Additional protocols	Modbus | Mitsubishi PLC programming protocol

PLC

Type	Integrated
Max. digital inputs/outputs	12/12
Min. digital inputs/outputs	5/5
Output type	Transistor/Relay/Mixed
Max. load of transistor	500mA
Max. load of relay	5A
Max. analog inputs/outputs	4/2
Analog input voltage	0-10V lub 0-5V
Analog input current	0-20mA lub 4-20mA
Analog output voltage	0-10V lub 0-5V

Analog output current	0-20mA
Temperature sensor	Thermocouple EK/PT100/NTC10K/50K/100K
COM port	1x RS232 (opionally RS485)
Software	Compatible with Mitsubishi GX 8.52 i Works 2

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 is equipped with an operating system from Windows CE family, 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 EX43H is a powerful combination of small size with considerable capabilities through the use of the processor family ARM Cortex A9 with 640MHz clock speed, which, combined with 64MB of RAM gives us a powerful, multi-purpose, quality device for a low price.

Small size

HMI EX43H is equipped with a 4.3 inch (119mm x 93mm) screen and the overall size of its design is only 134mm x 102mm x 30mm, with a cutout size of 119mm x 93mm and its weight is only 400 grams. With such a small size it can be used in even if there is not much available space. In addition, HMI has the possiblility 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 PC / ABS (polycarbonate / acrylonitrile-butadiene-styrene)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

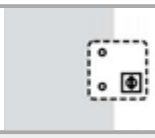
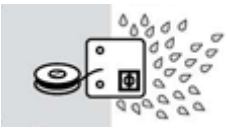
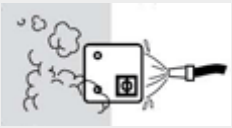
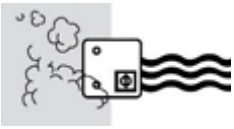
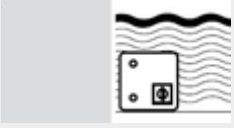
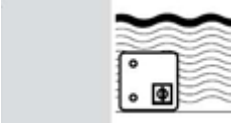
Using the latest technology, HMI EX43H is designed for continuous operation with low power consumption of less than 3W at 24V.

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	-20 - 60
Storage temperature	-20 - 70
Humidity	20% - 90% (non-condensing)
Dust resistance	IP6x
Water resistance	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".

	Digital input	Digital output	Analog input	Analog output	RS232 in HMI	Output type
EX43H v.1	8	8	—	—	—	Transistor
EX43H v.2	12	12	—	—	—	Transistor
EX43H v.3	12	12	4	2	—	Transistor
EX43H v.4	12	12	4	2	1	Transistor
EX43H v.5	8	8	—	—	—	Relay
EX43H v.6	12	8	—	—	—	Relay

EX43H v.7	12	12	—	—	—	Relay

Communication

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.

CONNECTOR TYPE	QUANTITY
USB 2.0	1

RS232 (optional)	1
DC 24V	1
Mini USB	1

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.

Application

Warehouse

Industrial HMI operator panel can be used to connect multiple devices in the warehouse and make them easier to control. And its robust design is perfectly designed for the harsh conditions prevailing in these areas. Dust or dirt will not prevent this device from working, it will work flawlessly even in polluted environments.

available in the **Technical data** tab.

Thanks to the ease w
specific tasks, it's wic
and mediation betw
processes, giving you
situations.