

MSG

MVI20



About us

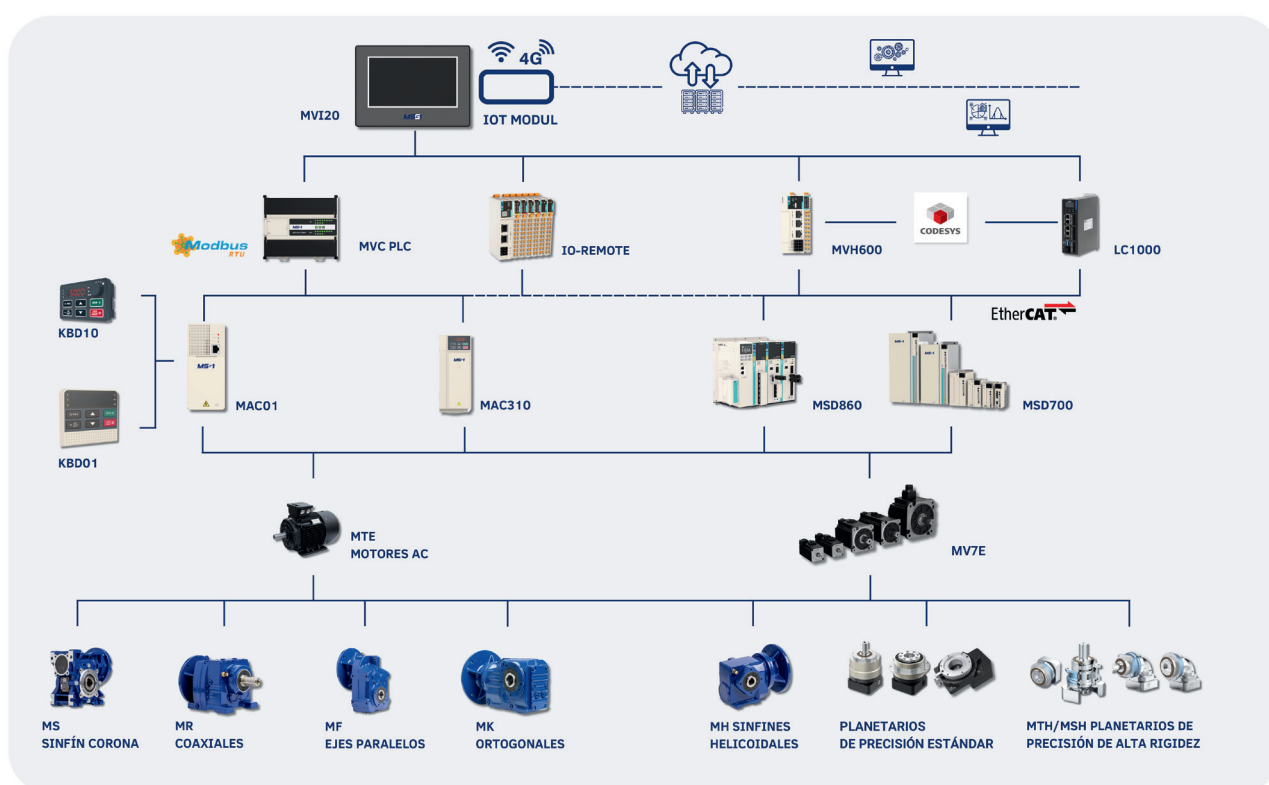
Welcome to Mechatronic System Group (MSG), a young team with solid experience in the industrial mechatronics sector.

We stand out by offering innovative products and a complete portfolio that covers the needs of machine manufacturers and engineering companies. At MSG, we not only provide advanced technical solutions, but we also accompany our customers throughout the machine definition process. With a national and international presence, we are committed to driving the cutting edge of mechatronics in industry.

At MSG, we pride ourselves on being at the forefront of technology by constantly innovating our products. In our electronics division, we excel with precision planetary gearboxes and helical gearboxes. Designed to be interchangeable with the vast majority of manufacturers, this gives us a unique competitive advantage over other brands. MSG are committed to offering advanced and flexible mechanical solutions to meet the demands of our customers.

MSG provides various products including inverters from 0.4kW to 1.200kW, servo systems from 50W to 90kW, motion controllers, PLC and HMI, which are applied in all sorts of fields occasions like lifting, mining, rail traffic, machine tools, compressors, plastic equipment, photo-voltaic pumping, construction, robots/mechanical arms, printing and packaging, chemical fibers for textile use, metallurgy, municipal works, petrol work and chemical engineering.

MSG has committed to electric drive and industrial control since it's foundation. As an all-round company engaged in R & D, manufacturing and sales on high-tech industrial automation products.



MVI20

MSG MVI20 series is a new generation of IoT HMI, with industrial ABS plastic housing which is economic and firm; new molding with downward wiring outlet for higher convenience; redesigned front face for better looking; and higher resolution for customers to choose.

FLink IoT module now is optional with which an IoT HMI is immediately here to offer complete industrial cloud platform service.



Model Description

MVI 20 - 070 S- F E

Product Code ○
VI

Product Series ○
30

043: 4.3"
070: 7"
101: 10.1"
15.6: v15.6"

○ F: without Ethernet
FE: with Ethernet

○ S: General
U1: with UL certification

Product Features

High definition, High brightness, Panoramic view

High-definition, high-brightness liquid crystal display with a maximum viewing angle of 170°.

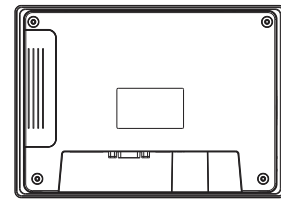
4.3"	800×480	250 cd/m ²
7"	1024×600	350 cd/m ²
10.1"	1024×600	400 cd/m ²



Edge computing

Embedded edge computing, Software

- 300+ protocols for local parsing
- VPN and Routing
- Data storage
- MQTT

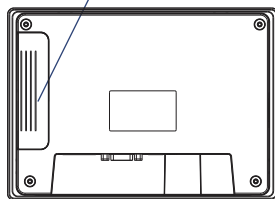


FLink IOT expansion

Remote configuration of device data via FLink

- Remote download via PLC
- Data configuration
- History record query
- Alarm setting

Slots for expansion modules are:
FLink, FLink-2G(-A), FLink-4G(-A),
FLink-4G(-C), FLink-WiFi(-A)



FlexCloud

Strong SAAS platform based on B/S architecture

- Configuration monitoring
- Map monitoring
- Data report
- Mobile APP

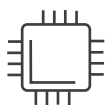


Technical Specification

Hardware Parameter	Model	MVI20-043S-F	MVI20-070S-F	MVI20-070S-FE	MVI20-101S-F	MVI20-101S-FE	MVI20-156S-FE	
	Display	4.3"16:9 TFT LCD	7"16:9 TFT LCD			10.1"16:9 TFT LCD		15.6"16:9 TFT LCD
	Resolution	800×480	1024×600					1920×1080
	Color	16-bit	24-bit					65K
	Brightness	250 cd/m²	350 cd/m²			350 cd/m²	400 cd/m²	250 cd/m²
	Backlight		LED					
	LCD life		50000 hours					
	Touch screen		4-wire industrial resistive touch screen					
	CPU	720 MHz ARM	600MHz ARM Cortex-A8					1G ARM Cortex-A8
	Memory	64MB RAM+128MB Flash	128MB Flash+128MB DDR3					256MB Flash+512MB DDR3
	RTC	With	Built-in real-time clock					
	SD card							Micro SD(TF) card
	Ethernet	None	None	1 x 10M/100M	None	1 x 10M/100M	2 x 10M/100M	
	USB	1 x Type-C OTG	1xUSB Slave 2.0; xUSB Host 2.0					
	Download	USB Slave/USB flash disk (adaptor needed)	USB Slave / USB flash disk	USB Slave / USB flash disk/ Ethernet	USB Slave / USB flash disk	USB Slave / USB flash disk/ Ethernet	USB Slave /USB flash disk /Ethernet	
	Serial communication	COM1: RS232/RS485/RS422 COM3: RS232	COM1:RS232/RS485/RS422 COM2: RS485 COM3: RS232	COM1: RS232/RS485/RS422 COM2: RS485 COM3: RS232	COM1: RS232/RS485/RS422 COM3:RS232	COM1: RS232/RS485/RS422 COM2: RS485 COM3: RS232	COM1/COM3: RS232/RS485/RS422 COM2: RS485/RS422	
LCD viewing angle (T/B/L/R)	80°/80°/80°/80°	85°/85°/85°/85°						
Electrical Specification	Rated power	<2.5W	<10W				<18W	
	Rated voltage		DC24V, operating voltage DC 9V~28V					DC24V, operating voltage DC 18V~28V
	Power protection		Lightning surge protection					Power isolation module with lightning surge protection
	Allowable power loss		<5ms					
	CE&RoHS	CE & RoHS in accordance with EN61000-6-2:2005, EN61000-6-4:2007; Lightning surge ±1kV, and group pulse ±2kV in accordance with RoHS Electrostatic contact 4kV, and air discharge 8kV in accordance with EMC RoHS						
Environment Requirement	Operating temperature	0~50°C						
	Storage temperature	-20~60°C						
	UV protection	No working in strong UV environment (e.g. direct sunlight)						
	Ambient humidity	10~90%RH (no condensation)						
	Vibration resistance	10~25Hz (2G/30m in X, Y, Z direction)						
	Cooling method	Natural air cooling						
Mechanical Index	Installation method	Embedded mounting / VESA mounting						
	Protection class	IP65 in front panel (for installation with leveling panel cabinet) IP20 in rear housing						
	Mechanical structure	Engineering plastic					Metal	
	Opening size	132mm×80mm	192mm×138mm			260mm×202mm	380mm×245mm	
	Overall dimension	138mm×86mm×32mm	204mm×145mm×33.8mm			273mm×213mm×36mm	394mm×256mm×36mm	
	Weight	About 300g	About 560g			About 890g	About 2250g	

Upgraded Models Available

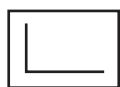
MVI20-070U1-FE is a typical HMI adopting 1G and 4-core A7 processor, and a high resolution screen, which can be used in various industrial production scenarios. Its UL certificated U1 screen brings better performance and satisfies more needs.



1GHz processor and dual-core Cortex-A7 for higher performance and faster processing



4GB eMMC + 128MB DDR larger memory



Higher resolution and brightness



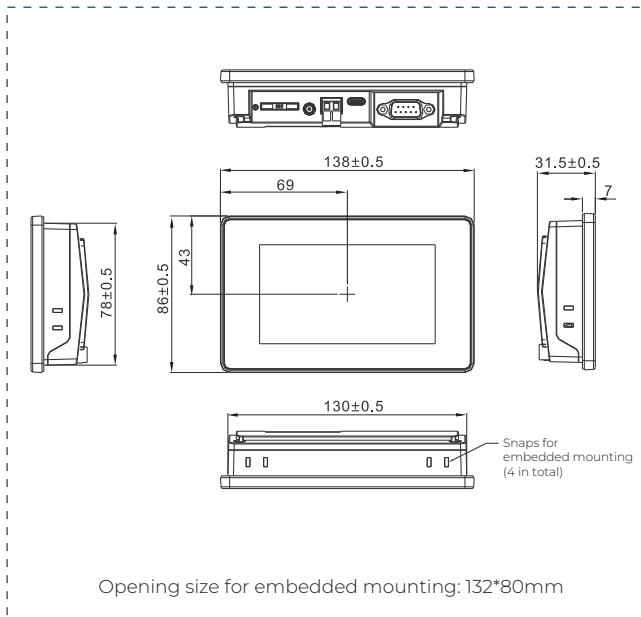
UL and CE certified screen for global market

Technical Specification

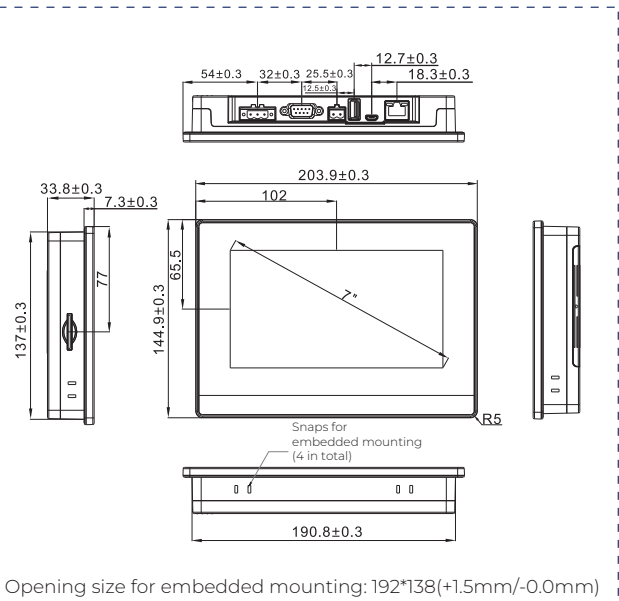
Hardware Parameter	Model	MVI20-070U1-F	MVI20-070U1-FE	MVI20-101U1-F	MVI20-101U1-FE
	Display	7" 16:9 TFT LCD	7" 16:9 TFT LCD	10.1" 16:9 TFT LCD	10.1" 16:9 TFT LCD
	Resolution	800×480	1024×600	1024×600	1024×600
	Color	24-bit	24-bit	24-bit	24-bit
	Brightness	350 cd/m ²	350 cd/m ²	400 cd/m ²	400 cd/m ²
	Backlight	LED			
	LCD life	50000 hours			
	Touch screen	4-wire industrial resistive touch screen			
	CPU	1GHz, dual-core Cortex-A7	1GHz, dual-core Cortex-A7	1GHz, dual-core Cortex-A7	1GHz, dual-core Cortex-A7
	Memory	4GB eMMC + 128MB DDR	4GB eMMC + 128MB DDR	4GB eMMC + 128MB DDR	4GB eMMC + 128MB DDR
	RTC	Built-in real-time clock	Built-in real-time clock	Built-in real-time clock	Built-in real-time clock
	Ethernet	None	1 x 10M/100M	None	1 x 10M/100M
	USB	1 x Type-C OTG 1 x USB Type A	1 x Type-C OTG 1 x USB Type A	1 x Type-C OTG 1 x USB Type A	1 x Type-C OTG 1 x USB Type A
	Serial communication	COM1: RS232/RS485/RS422 COM3: RS232	COM1:RS232/RS485/RS422 COM2:RS485 COM3:RS232		
	LCD viewing angle (T/B/L/R)	50°/70°/70°/70°	85°/85°/85°/85°	85°/85°/85°/85°	85°/85°/85°/85°
Electrical Specification	Rated power	<10W			
	Rated voltage	DC24V, operating voltage DC 9V~28V			
	Power protection	Lightning surge protection			
	Allowable power loss	<5ms			
	CE&RoHS	CE & RoHS In accordance with EN61000-6-2:2005,EN61000-6-4:2007; Lightning surge ±1KV, and group pulse ±2KV in accordance with RoHS Electrostatic contact 4KV, and air discharge 8KV in accordance with EMC			
Environment Requirement	Operating temperature	0~50°C			
	Storage temperature	-20~60°C			
	UV protection	No working in strong UV environment (e.g. direct sunlight)			
	Ambient humidity	10~90%RH (no condensation)			
	Vibration resistance	10~25Hz (2G/30m in X, Y, Z direction)			
	Cooling method	Natural air cooling			
Mechanical Index	Installation method	IP65 in front panel (for installation with leveling panel cabinet) IP20 in rear housing			
	Mechanical structure	Engineering plastic			
	Opening size	190mm×136mm	190mm×136mm	260mm×202mm	260mm×202mm
	Overall dimension	204mm×145mm×34mm (±0.5mm)	204mm×145mm×34mm (±0.5mm)	273mm×213mm×36mm(±0.5mm)	273mm×213mm×36mm(±0.5mm)
	Weight	about 476g	about 472g	about 890g	about 920 g

Installation Dimension

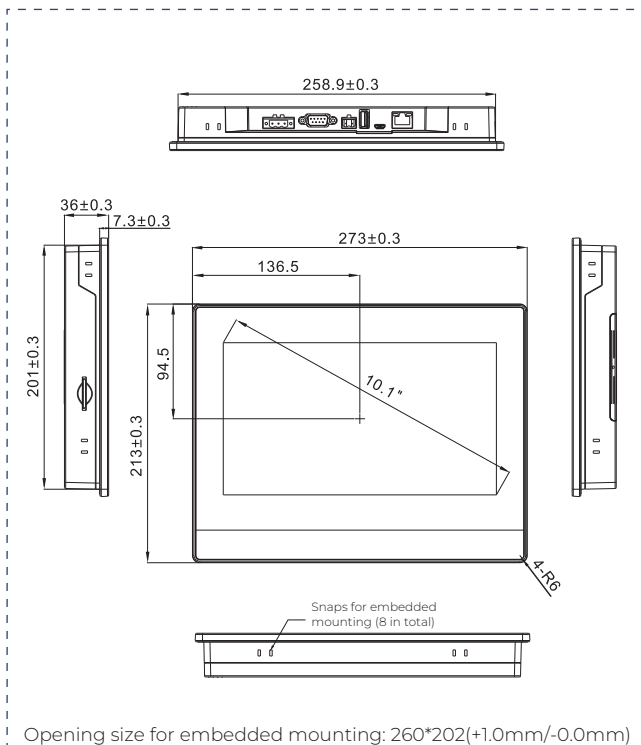
MVI20-043S-F



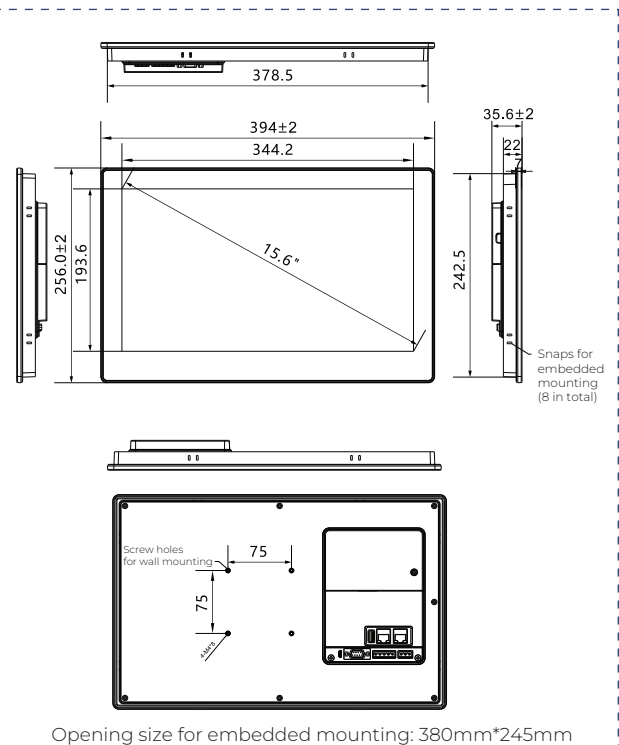
MVI20-070S-F/MVI20-070S-FE



MVI20-101S-F/MVI20-101S-FE



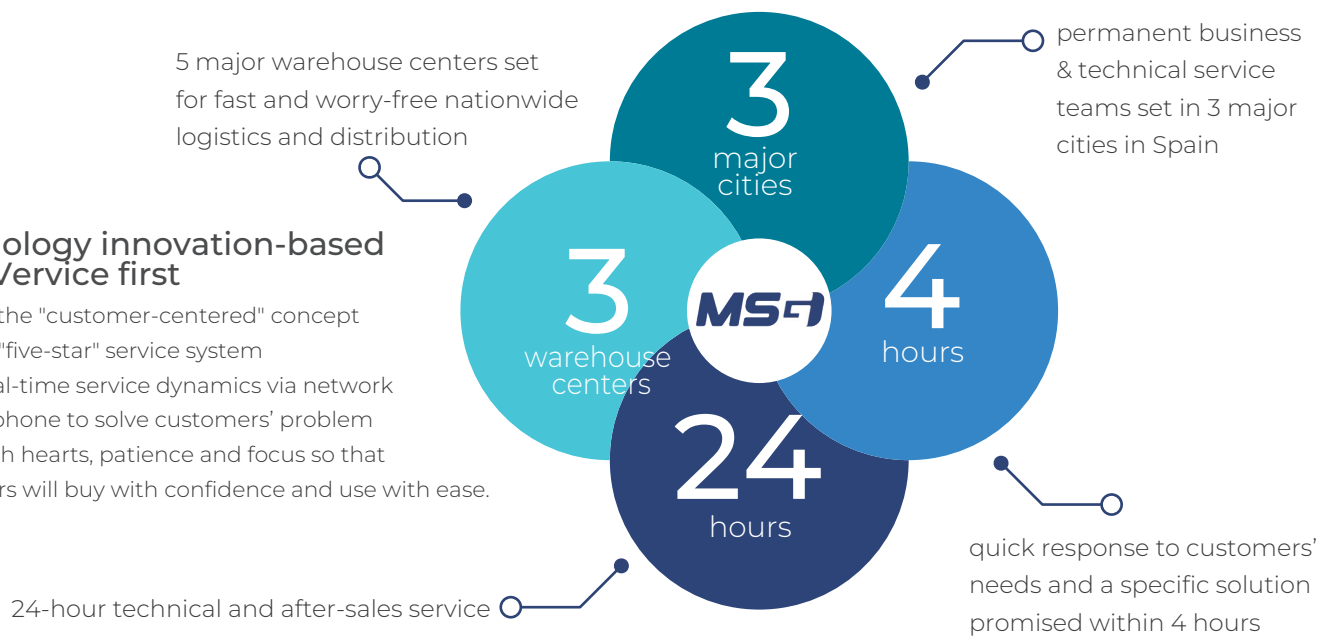
MVI20-156S-FE



Service and Support

Technology innovation-based and sService first

Practice the "customer-centered" concept
 Create a "five-star" service system
 Grasp real-time service dynamics via network and telephone to solve customers' problem
 Serve with hearts, patience and focus so that customers will buy with confidence and use with ease.



01

Pre-sales
 technology promotion,
 site survey, proposal design,
 energy saving
 assessment

02

During-sales
 customization, design
 consultation, installation and
 commissioning,
 on-site training

03

After-sales
 regular return visits,
 regular maintenance,
 timely repairs,
 application instruction

Notes

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Official Website

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