Human Machine Interface Product Line-up Guide

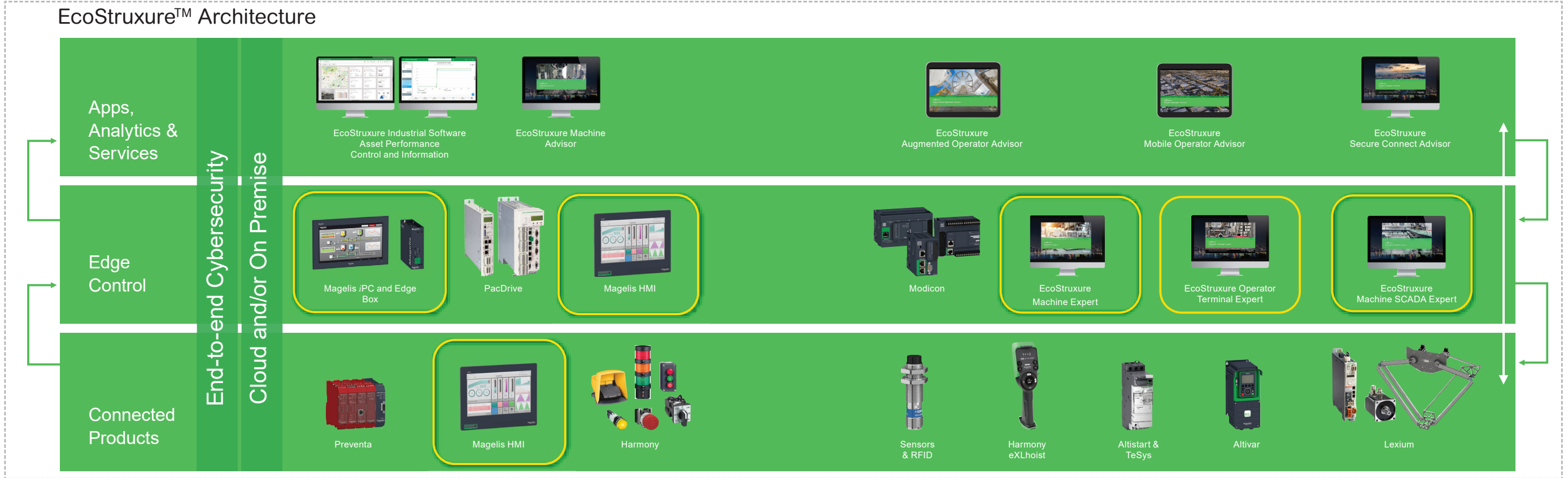## Magelis™ Panels and Industrial PCs

schneider-electric.com/HMI

Life Is On | **Schneider Electric**

EcoStruxure for Magelis™ HMI

EcoStruxure is Schneider Electric's innovative IoT-enabled, plug-and-play, open, interoperable architecture and platform addressing the needs of automation applications for a wide range of industries. The EcoStruxure platform is the functional technology backbone, which enables embedded connectivity and intelligence using standard-based communication protocols. This has three levels or layers, namely: Connected Products, Edge Control, and Apps, Analytics & Services, that can be hosted in the cloud as well as on premise.

The Magelis Industrial PCs and Edge Box offer meets IIoT challenges at the Edge Control level by enabling secure communication from connected products on the shop floor to the required software and applications on the top floor. All Basic and Advanced Magelis HMI panels meets IIoT challenges at the Connected products level, by enabling secure communication to the required Software and applications at the Edge control level. This provides improved profitability and new business opportunities, through enhanced asset performance for more efficient operation and maintenance of capital assets.

EcoStruxure™ Architecture

Apps, Analytics & Services
- EcoStruxure Industrial Software Asset Performance Control and Information
- EcoStruxure Machine Advisor
- EcoStruxure Augmented Operator Advisor
- EcoStruxure Mobile Operator Advisor
- EcoStruxure Secure Connect Advisor

Edge Control
- Magelis iPC and Edge Box
- PacDrive
- Magelis HMI
- Modicon
- EcoStruxure Machine Expert
- EcoStruxure Operator Terminal Expert
- EcoStruxure Machine SCADA Expert

Connected Products
- Preventa
- Magelis HMI
- Harmony
- Sensors & RFID
- Harmony eXLhoist
- Altistart & TeSys
- Altivar
- Lexium

End-to-end Cybersecurity
Cloud and/or On Premise

Magelis Families

Basic Panels for simple machines

- Magelis ST6/STW6
- Magelis STO
- Magelis GTO
- Magelis STU
- Magelis SCU

Advanced panels for performance machines

- Magelis GTU
- Magelis GTUX
- Magelis HMIGK
- Magelis XBTGH

Industrial PCs for line management

- Magelis Edge Box
- Magelis S-Panel PC
- Magelis Modular PC
- Magelis Rack PC
- Magelis iDisplay

HMI software

- EcoStruxure Operator Terminal Expert
- EcoStruxure Machine SCADA Expert
- Vijeo Designer
- EcoStruxure Machine Expert
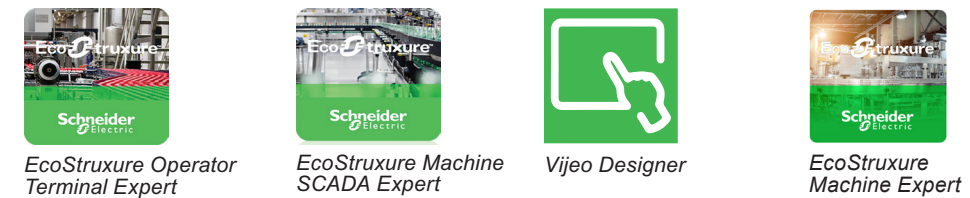
Recommended applications by HMI key products

	Marine	Control Panel Builders	HVAC&R	Pumping	Packaging	Food & Beverages	Oil & Gas	Material Handling	Material Working	WWW	MMM
Magelis ST6/STW6		✓	✓✓	✓✓	✓✓	✓					
Magelis STO	✓✓		✓	✓	✓						
Magelis GTU	✓✓				✓✓	✓✓		✓✓	✓✓	✓	✓✓
Magelis GTUX							✓✓			✓✓	
Magelis Industrial PC					✓	✓✓		✓✓	✓✓	✓✓	✓✓

✓✓ Highly recommended

General content

■ **Product Panorama**

■ **Quick Product Selection Tables**

Product Panorama

Basic HMI
for simple machines

Magelis ST6/STW6 — High-resolution and cost-efficient basic HMI

EcoStruxure Operator
Terminal Expert

HTML 5

Magelis ST6: W4", W7", W10", W12", W15"

- Cost-effective with good quality
- Superior high-resolution screen with 16M colors
- Powered by new-generation software "EcoStruxure Operator Terminal Expert" for high-quality graphics and stylish design
- Tool-free mounting with newly-designed mounting fastener, no need for screwdriver
- 2x Ethernet with Dual IP, end-to-end Cybersecurity
- Fits into Schneider EcoStruxure Architecture
- Web HMI version with embedded browser (instead of HMI software) for visualizing HTML5 servers on industrial devices

Magelis STO — Compact color HMI

Supporting Software

EcoStruxure Operator
Terminal Expert

Magelis STO: W4.3"

- TFT color screen with 480 x 272 pixels
- Removable logo stickers
- Larger screen with full-size ratio in the 4.3" class
- Patented mounting adapter for mounting in 3.5" STO panel cut-outs
- 3 versions for various communication types

Magelis GTO — Standard HMI

Supporting Software

EcoStruxure Operator
Terminal Expert

Vijeo
Designer

Magelis GTO: 3.5", 5.7", W7", 7", 10", 12"

- Excellent brightness with TFT 65K colors
- Stainless steel panel for food and beverage applications
- Standard front and IP65 degree of protection
- Extended Temperature - up to 55°C
- Easy to install and sustainable offer
- Full range of international certifications
- No-logo and full conformal coating versions available

Magelis STU — Cut-out free HMI
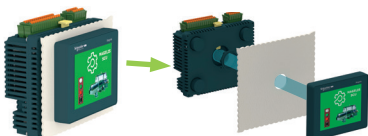
Supporting Software

Vijeo
Designer

Magelis STU: 3.5", 5.7"

- Compact for space saving
- Innovative tool-free mounting via 22.5 mm hole
- Ethernet port RJ45 10/100 Base T
- Separately mounted via 3 m or 5 m cable with mounting adapter
- Modular design for easy maintenance

Magelis SCU — Cut-out free HMI controller

Supporting Software

EcoStruxure
Machine Expert

Magelis SCU: 3.5", 5.7"

- Optimum all-in-one combination for HMI and Control
- Innovative tool-free mounting via 22.5 mm hole
- Reduce machine assembly time and cost
- Space saving
- Embedded CANopen port for field networking
- Modular design for easy maintenance

Advanced panels
for performance machines

Magelis GTU — High performance modular HMI

Supporting Software

EcoStruxure Operator Terminal Expert

EcoStruxure Machine SCADA Expert

Vijeo Designer

Magelis GTU: W7", 10", W10", 12, W12", 15", W15", W19"

Box   Display   Tool-free mounting   Complete HMI

- 8 sizes of high-resolution displays ranging from 7" to 19", either with modern 16:9 or standard 4:3 ratio
- 3 boxes, two with Real Time OS and one with fully open WES7
- Up to 2 separate Ethernet ports, serial communication ports, and field bus options suiting IoT
- Industrial multi-touch and fully coated offer
- All memory removable for PC-free box replacements
- Wireless LAN enabled display
- Easy to install with integrated mounting fastener and antidrop lock
- Multi-display capability wth Open box using DVI interface or multi-display adapter

Magelis GTUX — eXtreme HMI

Supporting Software

Vijeo Designer

Magelis GTUX: W7", 10", W10", 12", W12", 15", W15", W19"

- A wide temperature range from -30 °C...+70 °C
- Sunlight Readable: High brightness LCD (1000 cd/m2), anti-glare surface
- Robustness: UV Protection, conformal coated (fully coated)
- Dust and water proof (IP66F)
- Environmental standard: Class 1, Div. 2, ATEX/IECEx Zone2/22
- Variety of interfaces including dual Ethernet ports
- Modular design with stainless front face

Magelis HMIGK — Keyboard HMI

Supporting Software

Vijeo Designer

Magelis HMIGK: 5.7", 10.4"

- Fine control inputs even in severe environment
- Touch screen and keypad keys configurable simultaneously or separately
- Highly robust with operating temperatures up to 55 °C, reducing maintenance problems and time

Magelis XBTGH — Hand-held panel

Supporting Software

Vijeo Designer

Magelis XBTGH: 5.7"

- Excellent mobility
- Emergency switch
- Dead-man switch (3 Safety positions for operator protection)
- 11 function keys with insert labels
- Can be carried in one hand,left or right-handed

Magelis Industrial PCs
for line management

Magelis S-Panel PC − Slim All-in-one design

Magelis S-Panel PC: W10.1", W15.6", W18.5"

Supporting Software

EcoStruxure Operator Terminal Expert

EcoStruxure Machine SCADA Expert

- **HMIPSO Optimized**
  - Intel Atom E3827 dual-core 1.75 GHz, fanless, 4 GB DDR3 RAM
  - Expansion kit allowing 1x SATA HDD/SSD slot and 1x mini PCIe slot
  - W10" and W15" multi-touch projected capacitive technology screens

- **HMIPSP Performance**
  - Intel i3-4010U dual-core 1.7 GHz, fanless, 8 GB DDR3 RAM
  - 1x Mini PCIe full slot and 1x optional interface slot
  - W15" and W19" HD multi-touch projected capacitive technology screens

- **HMIPEP Enclosed Panel PC Performance**
  - Intel i3-4010U dual-core 1.7 GHz, fanless, 8 GB DDR3 RAM
  - 1x Mini PCIe full slot, M12 connectors
  - W19" multi-touch projected capacitive technology screen

Magelis Edge Box − Edge Control for EcoStruxure Machine and EcoStruxure Plant

Supporting Software

Node - RED
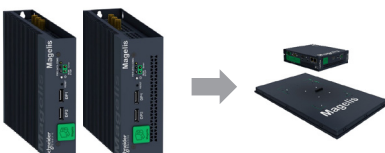
EcoStruxure Operator Terminal Expert

EcoStruxure Machine SCADA Expert

HMIBSC

HMIBMI

HMIBMO

- **HMIBSC** *(1)*
  - Qualcomm ARM Cortex-A53 Quad-core up to 1.2 GHz
  - 1 or 2 GB RAM, 2x Ethernet, 1x COM RS-232/432/485, 2x USB, 1x HDMI (for configuration only)
  - 8 or 64 GB eMMC (soldered), 1x SD card slot, 1x mini PCIe slot and 1x M.2 slot for expansions *(2)*, antenna connectors
  - Runs Node-RED to wired devices on the Industrial Internet of Things

- **HMIBMI**
  - Intel Atom "Apollo lake" E3930 Dual-core 1.8 GHz fanless
  - 4 GB RAM, 2x Ethernet, 1x COM, 2x USB, 1x DP (working with modular display HMIDM mounted)
  - 64 or 128 GB eMMC (soldered), 1x mini PCIe *(2)* slot, antennas connectors
  - Runs Node-RED to wired devices on the Industrial Internet of Things

- **HMIBMO**
  - Intel Atom "Apollo lake" E3930 Dual-core 1.8 GHz fanless
  - 4 or 8 GB RAM, 2x Ethernet (supporting real time), 2x COM, 4x USB, 2x DP (both working with modular display HMIDM mounted)
  - 64 or 250 GB M.2 SSD, 1x mini PCIe slot (without optional interface) *(2)*, antenna connectors
  - Expandable model with HDD/SSD 2.5" slot and optional interface for Mini PCIe *(2)*
  - Runs Node-RED to wired devices on the Industrial Internet of Things

(1) EcoStruxure OperatorTerminal Expert and EcoStruxure Machine SCADA Expert is Not supported by Magelis HMIBSC.
(2) Mini PCIe cards not requiring Optional interface (no external connector): Cellular, Wifi, Saved RAM, etc.
Mini PCIe cards requiring Optional interface: COM, USB, Audio, Video, Fieldbus, I/O, etc.

Magelis Industrial PCs
for line management

Magelis Modular — Box and display separation

HMIBMU, HMIBMP

Magelis Modular Display:12", W12", 15", W15.6", W18.5", W21.5"

Supporting Software

Ecostruxure Operator Terminal Expert

Ecostruxure Machine SCADA Expert

- ■ HMIBMU Universal
  - Intel Celeron 2980U dual-core 1.6 GHz, fanless
  - 2x Gigabit Ethernet, 1x RS-232/422/485, 4x USBs, 2 display ports, 3x antenna connectors
  - 2x full-size mini PCIe expansion slots and 2x optional PCI/PCIe card slots
  - UL Haz. loc. and ATex certification with 12", 15", W12" and W15" displays
  - IIoT system monitor with Node-RED and approved Cybersecurity (TPM hardware encryption, MacAfee white listing, etc.)

- ■ HMIBMP Performance
  - Intel Core i7-4650U 1.7 GHz, fanless
  - 2x Gigabit Ethernet, 1x RS-232/422/485, 4x USBs, 2x display ports, 3x antenna connectors
  - 2x full-size mini PCIe expansion slots and 2x optional PCI/PCIe card slots
  - IIoT system monitor with Node-RED and approved Cybersecurity (TPM hardware encryption, MacAfee white listing, etc.)
  - Marine certification with 15" and W15" displays
  - UL Haz. loc. and ATex certification with 12", 15", W12" and W15" displays

- ■ HMIDM Modular Display
  - 4:3 12"/15" single-touch resistive with front USB
  - 16:9 12"/15"/19"/22" multi-touch projected capacitive technology, 7H hardness, anti-scratch
  - IP66, Nema 4X indoor front panel

Magelis Rack PC — For control room

HMIRSO, HMIRSU, HMIRSP

Supporting Software

EcoStruxure Vijeo Designer

EcoStruxure Operator Terminal Expert

- ■ HMIRSO 2U Optimized
  - Intel Core G540 2.5 GHz or G850 2.9 GHz, 2 GB RAM
  - 2x PCI Express (x8) + 1x PCI
  - 2x Gigabit Ethernet, 2x RS-232 (+ 4 optional), 6x USB, 1x VGA, 1x DVI
  - 1x internal SATA3 slot and 2x external SATA2 trays,1x DVD-RW drive

- ■ HMIRSU 2U Universal
  - Intel Core i3-2120 3.3 GHz, 4 GB RAM
  - 2x PCI Express (x16) + 1x PCI
  - 2x Gigabit Ethernet, 2x RS-232 (+ 4 optional), 6x USB,
  - 1x VGA, 1x DVI, and 1x display port

- ■ HMIRSP 4U Performance
  - Intel Xeon E3-1225 3.1 GHz, 4 to 16 GB RAM
  - 4x PCI Express (x16) + 3x PCI
  - 2x Gigabit Ethernet, 2x RS-232 (+ 4 optional), 6x USB, 1x VGA, 1x DVI
  - Dedicated models for running PES Engineering and Server operating systems

Magelis iDisplay — Industrial monitors

Magelis iDisplay: W12", W15"

- ■ HMIDID
  - 1x USB on front panel, 1x DVI-D video, 1x USB, 1x RS-232C
  - IP67/66 and Nema 4X front screen
  - Industrial certifications (Hazardous Location and Marine)

HMI software and services

EcoStruxure™ Operator Terminal Expert — Touchscreen configuration software

EcoStruxure Operator Terminal Expert

A new-generation software providing a superior user experience with latest UI design and gestures.

■ Operate intuitively
- Ability to go beyond the limitations of the physical screen size to improve productivity

■ Reduce time to market
- Efficient and intuitive engineering
- For faster customization and modification

■ Improve efficiency
- High usability and image quality for the operator (experience design)

EcoStruxure Machine SCADA Expert — Lite SCADA for line management

EcoStruxure Machine SCADA Expert

Lite SCADA for line management

■ Save time
- Quick and easy to install directly on our iPCs
- Save days of testing and commissioning thanks to a fully tested and validated bundle

■ Save money
- Get peace of mind and save time and resources with our single point of contact for HW/SW/OS support

■ Connectivity and data management
- Includes 250 native communication drivers

Vijeo Designer — HMI configuration software

Vijeo Designer
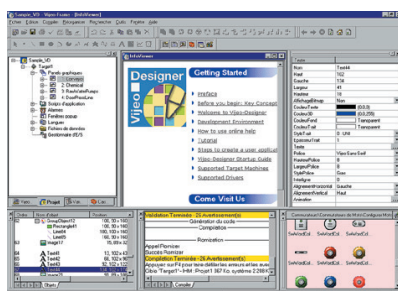
- Multiplatform: from optimized panels to iPCs
- Multipanel communication: automatic data sharing between up to 8 different panels
- Multilanguage: 15 languages in runtime and 38 alphabets
- Multiprotocol: on COM and Ethernet ports
- Multiaccess: local or remote display with WEB Gate, Vijeo Designer Air and Vijeo Designer Air Plus
- Multimedia: video/sound record/replay capability

HMI software and services

EcoStruxure™ Secure Connect Advisor

EcoStruxure Secure Connect Advisor

■ Provide a secure connection between remote display units on the work site (via SiteManager Embedded) and computers or smart devices in the office (via LinkManager) over a secure central server (GateManager).
■ With EcoStruxure Secure Connect Advisor, maintenance personnel can access Schneider Electric software and update it remotely and securely via the HMI, PLC, and other connected devices as if they were on site.
■ Troubleshooting and repairs can be performed remotely upon request.
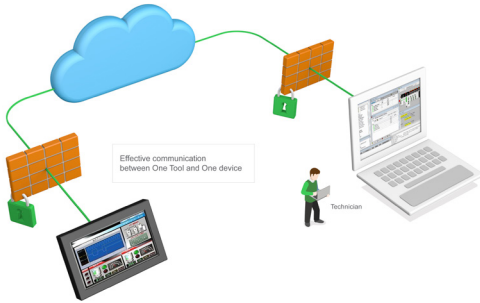
Vijeo Design'Air and Vijeo Design'Air Plus mobility app

Vijeo Design'Air

Vijeo Design'Air Plus

■ Vijeo Design'Air
  - Connect to your HMI remotely for an interactive mirror-view of your application:
  - HMI auto-detect: scans and detects available HMI terminals on a nearby network
  - Remote monitoring: connects tablets and smartphones to HMI terminals, and allows remote viewing and controlling of HMI projects at runtime
  - Smartphone-like enhanced data display brought to the automation industry
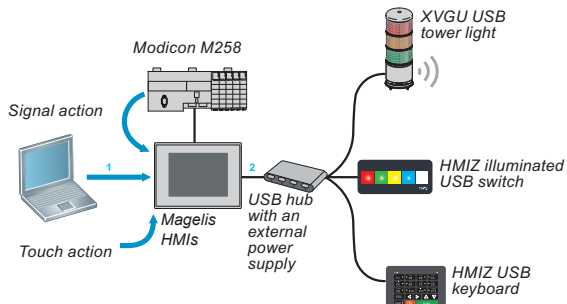 - Available in iOS AppStore and Google Play

■ Vijeo Design'Air Plus
  - Get a fully operable view of your application from wherever you are
  - HMI project design: enables an HMI designer to create a tablet/smartphone project of the automation process using enhanced drawing tools
  - Remote access and control: allows control of automation processes and provides the ability to view and monitor data, change variable values, and monitor and acknowledge alarms
  - Smartphone-like enhanced data display brought to the automation industry
 - Available in iOS AppStore and Google Play

Magelis USB accessories

Modicon M258

XVGU USB tower light

Signal action

Magelis HMIs

Touch action

USB hub with an external power supply

HMIZ illuminated USB switch

HMIZ USB keyboard

The functionality of the Magelis HMI can be extended with USB connected accessories. These innovative accessories can be easily installed and operated with HMI terminals. Their configuration is part of the overall HMI project and is stored in the terminal memory. The Illuminated Switch Panel and the Keyboard Panel are mounted via a 22 mm hole, simplifying installation.

Magelis HMIZRA

Supporting Software
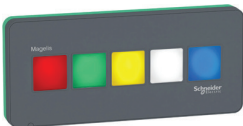
Vijeo Designer

■ Illuminated switch

- 5 tactile switches with configurable LED (red/green/yellow/white/blue)
- Dynamic light changes and flashing to display the machine status
- Easy mounting with one-cable connection and 22.5 mm hole

Magelis HMIZKB

Supporting Software

Vijeo Designer

■ USB keyboard

- Keyboard with 12 tactile function keys
- Support for alphanumerical and numerical input
- Easy mounting with one-cable connection and 22.5 mm hole

Harmony® XVGU

Supporting Software

Vijeo Designer

EcoStruxure Machine SCADA Expert

■ Tower light

- USB powered tower light with 3 LED light elements
- Multicolor with red, orange, green, or blue
- 85 dB buzzer with 4 configurable sound patterns
- Easy mounting with single USB cable

Quick Product Selection Tables

Basic HMI for simple machines

Platform	Magelis ST6/STW6		Magelis STO7 -Compact color HMI-	Magelis GTO -Standard HMI-	Magelis STU -Cut-out free HMI-	Magelis SCU -HMI controller -
	-Basic HMI-	-Basic Web HMI-				
Screen size	W4", W7", W10", W12", W15"		4.3"	3.5",5.7", W7", 7", 10",12"	3.5", 5.7"	3.5", 5.7"
Screen resolution	480 x 272/800 x 480/1024 x 600/ 1280 x 800/1366 x 768		480 x 272	320 x 240/640 x 480/ 800 x 480/800 x 600	320 x 240	320 x 240
Application memory	128 MB		26 MB	64 MB/128 MB or 96 MB/128 MB	32 MB	128 MB
Backup memory	512 KB		128 KB	128 KB to 512 KB	64 KB	128 KB
Expansion memory	None		None	None or SD card	None	None
Mounting	Standard cut-out		Standard cut-out	Standard cut-out	22 mm hole	22 mm hole
Ethernet port	2 LAN ports		None or 1 LAN port	None or 1 LAN port	1 LAN port	1 LAN port
Serial line	RS-232C/485 (COM1) only or RS-232C (COM1) and RS-485 (COM2)	–	None or RS-232C or RS-232C/RS - 485	RS-232C/485 (COM1) only or RS-232C (COM1) and RS-485 (COM2)	RS-232C/RS-485	RS-485/RS-232
Supply voltage	24 V⎓		12...24 V⎓	24 V⎓	24 V⎓	24 V⎓
Operating temperature	0…50 °C		0…50 °C	0…50 °C or 0…55 °C	0…50 °C	0…50 °C
Software	EcoStruxure Operator Terminal Expert	Linux Browser HTML5 (Graphic Primitives & Javascript)	EcoStruxure Operator Terminal Expert	Vijeo Designer/ EcoStruxure Operator Terminal Expert	Vijeo Designer	SoMachine

Advanced panels for performance machines

Platform	Magelis GTU -High performance HMI-			Magelis GTUX -for outdoor-	Magelis GK -with keyboard-	Magelis XBTGH -Hand-held-
	HMIG2U	HMIG3U	HMIG5U2			
Modular	Yes			Yes	–	–
Screen size	W7", 10", W10", 12", W12", 15", W15", W19"			W7", W12", W15"	5.7", 10"	5.7"
Screen resolution	800 × 480/800 × 600/1024 × 768/1280 × 800			800 × 480/1280 × 800/1366 x 768	320 × 240/640 × 480	640 x 480
CPU	RISC, 600 MHz		x86, 1.33 GHz	–	–	–
Operating system	Real time OS		Windows 7 Embedded	–	–	–
Application memory	256 MB		2 GB	256 MB	128 MB	32 MB
Backup memory	512 KB			512 KB	512 KB	512 KB
Expansion memory	SD card		SD card and CFast card 32 GB	SD card	SD card	CFast card
Ethernet port	2 LAN ports			2 LAN ports	1 LAN port	1 LAN port
Serial line	RS-232C (COM1)/ RS-485 (COM2)	RS-485 (COM1), RS-232C/RS-485 (COM2)/ RS-422		RS-485 (COM1), RS-232C/ RS-485/ RS-422 (COM2)	RS-232C (COM1), RS-485 (COM2)	RS-232C/RS-422/ RS-485 (COM1)
Supply voltage	12…24 V⎓			12…24 V⎓	24 V⎓	24 V⎓
Operating temperature	0…60 °C			-30...65 °C/ -30...70 °C/ -20...60 °C	0...55 °C	0...40 °C
Software	Vijeo Designer	Vijeo Designer/ EcoStruxure Operator Terminal Expert	Vijeo Designer/ EcoStruxure Operator Terminal Expert/EcoStruxure Machine SCADA Expert	Vijeo Designer	Vijeo Designer	Vijeo Designer

Magelis Industrial PCs for line management

Platform	Slim All-in-one Panel PC		
	HMIPSO	**HMIPSP**	**HMIPEP**
Screen size	W10", W15"	W15", W19"	W19"
Front protection	IP-66, NEMA 4X indoor, and 7H hardness anti-scratch		IP66 all over with VESA 100 mounting, NEMA 4X indoor, and 7H hardness anti-scratch front panels
Certifications	CE, cULus , RCM, EAC, CCC, FCC (part 15 EMC Class A)		
RAM	4 GB	8 GB	8 GB
CPU processor	Intel® Atom E3827 Dual-core (1.75 GHz)	Intel Core i3-4010U Dual-core 4th generation (1.7 GHz)	
OS	None, or WES 7 Premium SP1 (64-bit), or Windows® 7 Ultimate SP1 (64-bit Multi-language), or Win 8.1 Industry (64-bit Multi-language) or Windows 10 IoT Enterprise (64-bit Multi-language)	None, or WES 7 Premium SP1 (64-bit), or Win 8.1 Industry (64-bit Multi-language) or Windows 10 IoT Enterprise (64-bit Multi-language)	Win 8.1 Industry (64-bit Multi-language) or Windows 10 IoT Enterprise (64-bit Multi-language)
Expansion slots	1 Mini PCIe (requires optional expansion)	1 Mini PCIe	
IIoT and approved Cybersecurity	–	–	–
Software	EcoStruxure Operator Terminal Expert / EcoStruxure Machine SCADA Expert		

Platform	Edge Box			Modular Type -Box and Display separation-	
	HMIBSC	**HMIBMI**	**HMIBMO**	**HMIBMU**	**HMIBMP**
Modular	–	Yes			
Screen size	–	12", W12", 15", W15", W19", W22"			
Front protection	–	IP-66, NEMA 4X indoor, and 7H hardness anti-scratch			
Certifications	CE, cULus ITE (UL IT 60950, CSA IT 60950), RCM, EAC, CCC, FCC (-part 15 EMC Class A)			CE, RCM, EAC, CCC, cULus, CE ATEX and IECEx	CE, RCM, EAC, CCC, cULus, CE ATEX and IECEx, Marine DNV
RAM	1 GB or 2 GB (not user-expandable)	4 GB (not user-expandable)	4 GB or 8 GB (not user-expandable)	4 GB or 8 GB	8 GB or 16 GB
CPU processor	Qualcomm ARM Cortex-A53 Quad-core (up to 1.2 GHz)	Intel Atom Apollo Lake E3930 Dual-core (1.8 GHz)		Intel Celeron® 2980U Dual-core (1.6 GHz)	Intel Core i7-4650U (1.7 GHz)
OS	Linux Yocto	None or Windows 10 IoT Enterprise LTSB-2016 (64-bit)/Configured-To-Order offer		None, or WES 7 Premium SP1 (64-bit), or Win 8.1 Industry (64-bit Multi-language) or Windows 10 IoT Enterprise (64-bit Multi-language)	Win 8.1 Industry (64-bit Multi-language) or Windows 10 IoT Enterprise (64-bit Multi-language)
Expansion slots	1x full-size slot with optional interface, 1x M.2 slot (not for storage)	1x mini PCIe full slot with optional interface	1x mini PCIe full slot with or without optional interface	2x Mini PCIe + 2x PCI/PCIe (according to model)	
IIoT and approved Cybersecurity	Secure boot, Node-RED pre-installed, TPM for Cybersecurity	IIoT system monitor with Node-RED and approved Cybersecurity (TPM hardware encryption, McAfee white listing, etc.)			
Software	–	EcoStruxure Operator Terminal Expert/ EcoStruxure Machine SCADA Expert/ EcoStruxure Secure Connect Advisor		EcoStruxure Operator Terminal Expert/ EcoStruxure Machine SCADA Expert	

Platform	Rack PC		
	2U HMIRSO	**2U HMIRSU**	**4U HMIRSP**
CPU processor	Intel Core G540 (2.5 GHz) or Intel Core G850 (2.9 GHz)	Intel Core i3-2120 (3.3 GHz)	Intel Xeon™ Quad-core E3-1225 (3.1 GHz)
PCI slot	2x PCIe (x8) + 1x PCI	2x PCIe (x16) + 1x PCI	Up to 7 slots: 4x PCIe (x16) + 3x PCI
Drives	None or 500 GB	500 GB or SSD 80 GB	500 GB in front tray 2x Enterprise RAID hard disk - hot swap
RAM	2 GB	4 GB	4 GB or 8 GB or 16 GB
OS	None or Windows 7 or Windows 7 32-bit or Windows 7 64-bit	Windows 7 64-bit	Windows 7 64-bit or Windows Server 2008/2012 R2 (5 clients)
Software	Vijeo Designer/EcoStruxure Operator Terminal Expert		

HMI software comparison table

Platform	EcoStruxure Operator Terminal Expert	EcoStruxure Machine SCADA Expert	Vijeo Designer
Modern/Stylish design	+++	++	+
Efficient operation	+++ (multi-screen, slide to scroll, stretch to zoom)	++	+
Easy screen creation	+++	++	++
Easy programming	++	++	+++
Multitouch gestures	++	+++	-
Security	++	+++	+
Mobile access	+ (Web API)	+++ (Web API)	++
Languages	+	+++	+++
IT/OT connectivity	++	+++	+
Data management	+	+++	+
Target equipment type	Simple/Compact Machine	Performance/Complex Machine Line Management	Simple/Compact Machine Performance/Complex Machine
Typical target application	Marine, Control Panel Builders, HVAC&R, Pumping, Packaging, Food & Beverages	Material handling, Packaging, Food & Beverages, Material working, SEMI/FPD, Automotive line	Marine, Control Panel Builders, HVAC&R, Pumping, Packaging, Food & Beverages, Oil & Gas, WWW
Optimum hardware	Magelis ST6/STO7	Magelis GTU (HMIG5U2 pre-installed), Magelis iPC	Magelis GTO/STU/SCU/GTU, GTUX/HMIGK/XBTGH

+++ Highly recommended

Magelis USB compatible accessories table

Platform	USB accessories for HMI terminals		
CPU Processor	USB tower light	Illuminated USB switch	USB keyboard
	XVGU3S***	HMIZRA1	HMIZKB1
Magelis Panel PC	No	Yes	No
Magelis Box PC	No	Yes	No
XBTGT (except GT1000 series)	Yes	Yes	No
XBTGK	Yes	Yes	No
XBTGC	Yes	Yes	No
HMIGTW	No	Yes	No
HMIGTO	Yes	Yes	Yes
HMIGXO	Yes	Yes	Yes
HMISTU	No	No	Yes
HMISTO	No	No	Yes
HMISCU	Yes	Yes	Yes

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