

HMI-PLC





Whether in machine engineering, installations or in single applications there is seldom an application in which an HMI cannot simplify operation and through that relieve the operator.

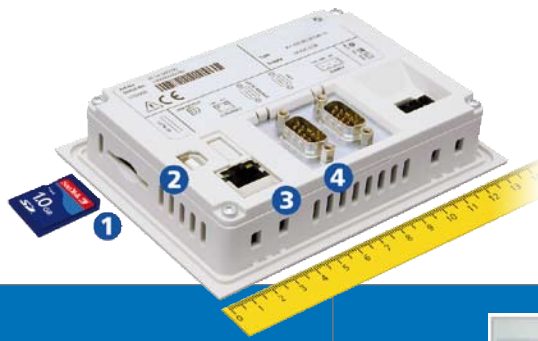
Modern touch displays provide clear, flexible menu guidance in every wished for language and allows the machine manufacturer world wide sales of their machines with just one hard- and software solution.

From 3.5" to 15" touch display HMI-PLC you have for every machine the optimal solution. Control, positioning and communication are developed with XSoft-CoDeSys-2 based on IEC 61131-3. The visualisation comfortably created with Galileo.



Compact operator interface with lots of power

- Full graphical 3.5", 5.7" or 7"-Widescreen TFT display with resistive touch screen
- High performance 400MHz RISC-Processor for PLC applications
- Onboard memory of 128MB on demand expandable with a SD card
- Nominal installation depth
- Ethernet interface onboard, furthermore CAN, Profibus, RS232 or RS485 possible
- integrated gateway function

XV100 3.5" mono	 <p>Version A</p>	 <p>Version B (PLC)</p>
	PLC function	no
Front	Standard	
Touch	resistive	
Display	TFT mono display 3.5"	
Resolution	QVGA 320x240	
Number of usable colors	32 grayscales	
Backlight	LED, dimmable	
Protective panel	Glass, non-reflective	
Processor	32Bit RISC, 400MHz	
Memory	64MB DRAM	
Internal Flash memory	64MB NAND Flash	
Retain memory	without	32kB NVRAM
Optional memory cards	1x SD memory card slot	
Operating system	WinCE 5.0 Core (included)	
Interfaces onboard:		
- Ethernet	XV-102-A0-35MQR-10 Art.No. 141759	XV-102-B0-35MQR-10-PLC Art.No. 140012
- Ethernet, RS232	XV-102-A3-35MQR-10 Art.No. 141821	XV-102-B3-35MQR-10-PLC Art.No. 140013
- Ethernet, RS485	XV-102-A4-35MQR-10 Art.No. 141822	XV-102-B4-35MQR-10-PLC Art.No. 140014
- Ethernet, Profibus	XV-102-A2-35MQR-10 Art.No. 141820	-
- Ethernet, RS232, CAN	XV-102-A5-35MQR-10 Art.No. 141823	XV-102-B5-35MQR-10-PLC Art.No. 140015
- Ethernet, RS485, CAN	-	XV-102-B6-35MQR-10-PLC Art.No. 140016
- Ethernet, RS485, Profibus	-	XV-102-B8-35MQR-10-PLC Art.No. 140017
Rated value	24VDC SEL V	
Protection type	IP65 front, IP20 rear	
Dimensions Device (WxHxD)	136 x 100 x 30mm	
Mounting cutout (WxH)	123 x 87mm	
Weight	approx. 0.25kg	





- 1 SD card
- 2 USB Device
- 3 Ethernet
- 4 onboard interfaces, depending on the version

XV100 3.5" color	 Version B	 Version B (PLC)
PLC function	upgradeable	integrated
Front	Standard	
Touch	resistive	
Display	TFT color display 3.5"	
Resolution	QVGA 320x240	
Number of usable colors	64k colors	
Backlight	LED, dimmable	
Protective panel	Glass, non-reflective	
Processor	32Bit RISC, 400MHz	
Memory	64MB DRAM	
Internal Flash memory	64 MB NAND Flash	
Retain memory	32kB NVRAM	
Optional memory cards	1x SD memory card slot	
Operating system	WinCE 5.0 Core (included)	
Interfaces onboard:		
- Ethernet	XV-102-B0-35TQR-10 Art.No. 140007	XV-102-B0-35TQR-10-PLC Art.No. 140018
- Ethernet, RS232	XV-102-B3-35TQR-10 Art.No. 140009	XV-102-B3-35TQR-10-PLC Art.No. 140019
- Ethernet, RS485	XV-102-B4-35TQR-10 Art.No. 140010	XV-102-B4-35TQR-10-PLC Art.No. 140020
- Ethernet, Profibus	XV-102-B2-35TQR-10 Art.No. 140008	-
- Ethernet, RS232, CAN	XV-102-B5-35TQR-10 Art.No. 140011	XV-102-B5-35TQR-10-PLC Art.No. 140021
- Ethernet, RS485, CAN	-	XV-102-B6-35TQR-10-PLC Art.No. 140022
- Ethernet, RS485, Profibus	-	XV-102-B8-35TQR-10-PLC Art.No. 140023
Rated value	24VDC SEL V	
Protection type	IP65 front, IP20 rear	
Dimensions Device (WxHxD)	136 x 100 x 30mm	
Mounting cutout (WxH)	123 x 87mm	
Weight	approx. 0.25kg	

The 3 display sizes by comparison:



In the display sizes 5.7" and 7" the XV100 devices are additionally equipped with an USB-Host and RS232 interface.



XV100 5.7" color	 Version D	 Version D (PLC)
PLC function	upgradeable	integrated
Front	Standard	
Touch	resistive	
Display	TFT color display 5.7"	
Resolution	VGA 640x480	
Number of usable colors	64k colors	
Backlight	LED, dimmable	
Protective panel	Glass, non-reflective	
Processor	32Bit RISC, 400MHz	
Memory	64MB DRAM	
Internal Flash memory	64 MB NAND Flash	
Retain memory	32kB NVRAM	
Optional memory cards	1x SD memory card slot	
Operating system	WinCE 5.0 Core (included)	
Interfaces onboard:		
- Ethernet, USB, RS232	XV-102-D0-57TVR-10 Art.No. 142530	-
- Ethernet, USB, RS232, RS485	XV-102-D4-57TVR-10 Art.No. 150620	-
- Ethernet, USB, RS232, RS485, CAN	XV-102-D6-57TVR-10 Art.No. 142531	XV-102-D6-57TVRC-10 Art.No. 142533
- Ethernet, USB, RS232, RS485, Profibus	XV-102-D8-57TVR-10 Art.No. 142532	XV-102-D8-57TVRC-10 Art.No. 142534
Rated value	24VDC SEL V	
Protection type	IP65 front, IP20 rear	
Dimensions Device (WxHxD)	170 x 130 x 39 mm	
Mounting cutout (WxH)	157 x 117 mm	
Weight	approx. 0.6kg	



- 1 SD card
- 2 USB Device
- 3 USB Host
- 4 Ethernet
- 5 onboard interfaces, depending on the version

<p>XV100 7" widescreen color</p>	 <p>Version D</p>	 <p>Version D (PLC)</p>
	<p>PLC function</p>	<p>upgradeable</p>
<p>Front</p>	<p>Standard</p>	
<p>Touch</p>	<p>resistive</p>	
<p>Display</p>	<p>TFT color display 7" Wide</p>	
<p>Resolution</p>	<p>WVGA 800x480</p>	
<p>Number of usable colors</p>	<p>64k colors</p>	
<p>Backlight</p>	<p>LED, dimmable</p>	
<p>Protective panel</p>	<p>Glass, non-reflective</p>	
<p>Processor</p>	<p>32Bit RISC, 400MHz</p>	
<p>Memory</p>	<p>64MB DRAM</p>	
<p>Internal Flash memory</p>	<p>64 MB NAND Flash</p>	
<p>Retain memory</p>	<p>32kB NVRAM</p>	
<p>Optional memory cards</p>	<p>1x SD memory card slot</p>	
<p>Operating system</p>	<p>WinCE 5.0 Core (included)</p>	
<p>Interfaces onboard:</p>		
<p>- Ethernet, USB, RS232</p>	<p>XV-102-D0-70TWR-10 Art.No. 142535</p>	<p>-</p>
<p>- Ethernet, USB, RS232, RS485</p>	<p>XV-102-D4-70TWR-10 Art.No. 150621</p>	<p>-</p>
<p>- Ethernet, USB, RS232, RS485, CAN</p>	<p>XV-102-D6-70TWR-10 Art.No. 142536</p>	<p>XV-102-D6-70TWRC-10 Art.No. 142538</p>
<p>- Ethernet, USB, RS232, RS485, Profibus</p>	<p>XV-102-D8-70TWR-10 Art.No. 142537</p>	<p>XV-102-D8-70TWRC-10 Art.No. 142539</p>
<p>Rated value</p>	<p>24VDC SEL V</p>	
<p>Protection type</p>	<p>IP65 front, IP20 rear</p>	
<p>Dimensions Device (WxHxD)</p>	<p>210 x 135 x 38 mm</p>	
<p>Mounting cutout (WxH)</p>	<p>197 x 122 mm</p>	
<p>Weight</p>	<p>approx. 0.6kg</p>	









- 1 SD card
- 2 USB Device
- 3 USB Host
- 4 Ethernet
- 5 onboard interfaces, depending on the version

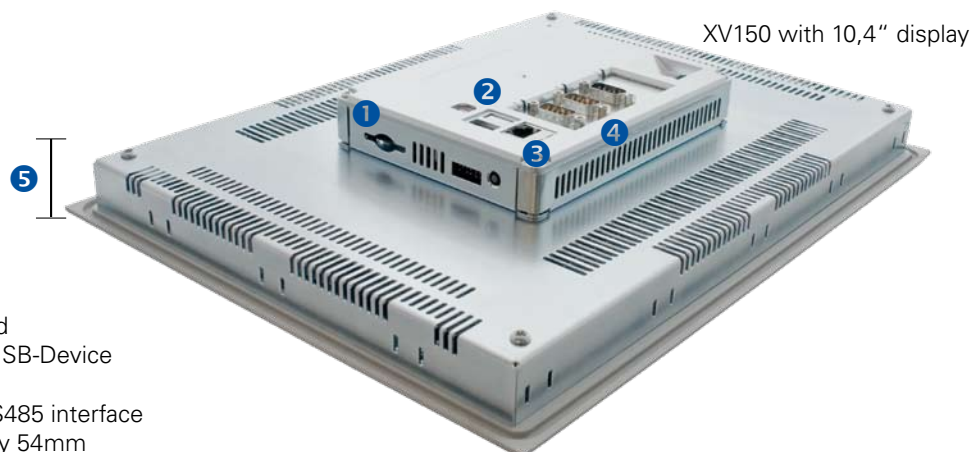
Compact and rugged

The XV150 devices impress with the nominal installation depth, the rugged metal case and the comprehensive basic equipment:

- Display sizes 5,7", 8,4" and 10,4"
- Nominal installation depth
- Mounting compatible with XV400 devices
- USB-Host, Ethernet and RS232 interface onboard
- Communication interfaces onboard depending on the type: RS485, Profibus and CAN

XV150 5.7", 8.4" color				
	5.7"	5.7"	8.4"	8.4"
PLC funktion	upgradeable	integrated	upgradeable	integrated
Front	Standard			
Touch	resistive			
Display	TFT color display 5.7"		TFT color display 8.4"	
Resolution	VGA 640x480			
Number of usable colors	64k colors			
Backlight	LED, dimmable			
Protective panel	Glass, non-reflective			
Processor	32Bit RISC, 400MHz			
Memory	64 MB DRAM			
Internal Flash memory	64 MB NAND Flash			
Retain memory	32kB NVRAM			
Optional memory card	1x SD Memory Card			
Operating system	WinCE 5.0 Core (included)			
Interfaces onboard:				
- Ethernet, USB, RS232	XV-152-D0-57TVR-10 Art.No. 150525	-	XV-152-D0-84TVR-10 Art.No. 150601	-
- Ethernet, USB, RS232, RS485	XV-152-D4-57TVR-10 Art.No. 150526	-	XV-152-D4-84TVR-10 Art.No. 150602	-
- Ethernet, USB, RS232, RS485, CAN	XV-152-D6-57TVR-10 Art.No. 150527	XV-152-D6-57TVRC-10 Art.No. 150529	XV-152-D6-84TVR-10 Art.No. 150603	XV-152-D6-84TVRC-10 Art.No. 150605
- Ethernet, USB, RS232, RS485, Profibus	XV-152-D8-57TVR-10 Art.No. 150528	XV-152-D8-57TVRC-10 Art.No. 150600	XV-152-D8-84TVR-10 Art.No. 150604	XV-152-D8-84TVRC-10 Art.No. 150606
Rated value	24VDC SEL V			
Protection type	IP65 front, IP20 rear			
Dimensions device (WxHxD)	212 x 156 x 53 mm		275 x 208 x 53 mm	
Mounting cutout (WxH)	198 x 142 mm		261 x 194 mm	
Weight	1.3kg		2.1kg	




<p>XV150 10.4" color</p>	 <p>10.4"</p>	 <p>10.4"</p>
	<p>PLC funktion</p>	<p>upgradeable</p>
<p>Front</p>	<p>Standard</p>	
<p>Touch</p>	<p>resistive</p>	
<p>Display</p>	<p>TFT color display 10.4"</p>	
<p>Resolution</p>	<p>VGA 640x480</p>	
<p>Number of usable colors</p>	<p>64k colors</p>	
<p>Backlight</p>	<p>LED, dimmable</p>	
<p>Protective panel</p>	<p>Glass, non-reflective</p>	
<p>Processor</p>	<p>32Bit RISC, 400MHz</p>	
<p>Memory</p>	<p>64 MB DRAM</p>	
<p>Internal Flash memory</p>	<p>64 MB NAND Flash</p>	
<p>Retain memory</p>	<p>32kB NVRAM</p>	
<p>Optional memory card</p>	<p>1x SD Memory Card</p>	
<p>Operating system</p>	<p>WinCE 5.0 Core (included)</p>	
<p>Operating onboard:</p>		
<p>- Ethernet, USB, RS232</p>	<p>XV-152-D0-TVR-10 Art.No. 150607</p>	<p>-</p>
<p>- Ethernet, USB, RS232, RS485</p>	<p>XV-152-D4-10TVR-10 Art.No. 150608</p>	<p>-</p>
<p>- Ethernet, USB, RS232, RS485, CAN</p>	<p>XV-152-D6-10TVR-10 Art.No. 150609</p>	<p>XV-152-D6-10TVRC-10 Art.No. 150611</p>
<p>- Ethernet, USB, RS232, RS485, Profibus</p>	<p>XV-152-D8-10TVR-10 Art.No. 150610</p>	<p>XV-152-D8-10TVRC-10 Art.No. 150612</p>
<p>Rated value</p>	<p>24VDC SEL V</p>	
<p>Protection type</p>	<p>IP65 front, IP20 rear</p>	
<p>Dimensions device (WxHxD)</p>	<p>345 x 260 x 54 mm</p>	
<p>Mounting cutout (WxH)</p>	<p>329 x 238 mm</p>	
<p>Weight</p>	<p>3.0kg</p>	



- 1 1 x SD memory card
- 2 1 x USB-Host, 1 x USB-Device
- 3 Ethernet interface
- 4 CAN, RS232 and RS485 interface
- 5 Mounting depth only 54mm



Flexible communication

The new XV200 touch display device series offers either a fully graphical 5.7" FSTN monochrome display with 256 grayscales or a fully graphical 5.7" color display with 256 colors, industrial resistive touch technology as well as a wide range of communication and network options. The touch-sensitive display ensures intuitive operation and visualization. Language-neutral and self-explanatory touch switches can be created to provide clearly designed operating screens. PLC functionality can be implemented on the XV200 devices if required. All devices come with an Ethernet and USB Device interface. Depending on the device type, CAN, Profibus (MPI/PPI/DP) or RS232 can be provided as additional interfaces.

XV200 5.7" mono	 XV-230-57CNN-1-10		 XV-230-57MPN-1-10		 XV-232-57BAS-1-10	
	PLC function	upgradeable				
Front	Standard					
Touch	resistive					
Display	FSTN-LCD (mono display) 5.7"					
Resolution	QVGA 320 x 240					
Number of usable colors	256 grayscales					
Backlight	1 CCFL, dimmable					
Protective panel	Glass, non-reflective					
Processor	RISC 32Bit, 200MHz					
Memory	32MB					
Retain memory	100Byte					
Internal Flash memory	1.5MB linear					
Optional memory cards	1 x CompactFlash					
Operating system	WinCE					
Interfaces onboard	Ethernet, CAN	Ethernet, Profibus	Ethernet, RS232			
Slots for communication modules	-					
Rated value	24VDC					
Protection type	IP65 front, IP20 rear					
Dimensions of device (WxHxD)	212 x 156 x 55mm					
Mounting cutout (WxH)	198 x 142mm					
Weight	approx. 0.7 kg					
Article no.	139951	139952	139950			



- 1 RS232
- 2 CAN or Profibus
- 3 Ethernet
- 4 CompactFlash

XV200 5.7" color	 XV-252-57CNN-1-10	 XV-252-57MPN-1-10
PLC function	upgradeable	
Front	Standard	
Touch	resistive	
Display	CSTN-LCD (color display) 5.7"	
Resolution	QVGA 320 x 240	
Number of usable colors	256 colors	
Backlight	1 CCFL, dimmable	
Protective panel	Glass, non-reflective	
Processor	RISC 32Bit, 200MHz	
Memory	32MB	
Retain memory	100Byte	
Internal Flash memory	1.5 MB linear	
Optional memory cards	1 x CompactFlash	
Operating system	WinCE	
Interfaces onboard	Ethernet, RS232, CAN	Ethernet, RS232, Profibus
Slots for communication modules	-	
Rated value	24VDC	
Protection type	IP65 front, IP20 rear	
Dimensions of device (WxHxD)	212 x 156 x 55mm	
Mounting cutout (WxH)	198 x 142mm	
Weight	approx. 0.7 kg	
Article no.	139956	139957




Portrait format



The panels can be used in portrait format (rotated 90°) if required.



Standard system with infra-red and resistive touch for worldwide use

Thanks to the extensive range of interfaces available onboard, the XVS400 compact devices can be adapted to the world's leading automation systems. The Profibus Master interface provided and the robust infra-red touch make the XVS devices highly flexible alternatives for the visualization and automation world. With versatile Ethernet and USB interfaces as well, these products offer the most advanced networking options. Devices with color screens and a screen diagonal of 5.7" to 12.1" are available. The integral IEC 61131-3 compliant PLC supports all the programming languages of the standard including structured text and sequential function chart for the optimum implementation of the control task.




XVS400 5.7", 8.4", 10.4" color	 <p>5.7"</p>		 <p>8.4"</p>		 <p>10.4"</p>		
	PLC function		upgradeable				
Front		Standard					
Infra-red touch, safety glass, non-reflective		XVS-460-57MPI-1-10 139970		XV-460-84MPI-1-10 139971		XVS-440-10MPI-1-10 139973	
Resistive touch, glass, non-reflective		XVS-450-57MPI-1-10 139969		-		XVS-430-10MPI-1-10 139972	
Display		5.7" TFT-LCD color		8.4" TFT-LCD color		TFT-LCD color 10.4"	
Resolution		QVGA 320 x 240		VGA 640 x 480			
Number of usable colors		65'536					
Backlight		LED, dimmable		2 CCFL, dimmable			
Processor		RISC 32Bit, 400MHz					
Memory		64MB					
Retain memory		32kB					
Internal Flash memory		1.5MB linear					
optional memory cards		1 x CompactFlash			2 x CompactFlash		
Operating system		WinCE					
Interfaces onboard		Ethernet, RS232, USB-Host, USB-Device, Profibus					
Rated value		24VDC					
Protection type		IP65 front, IP20 rear					
Dimensions device (WxHxD)		212 x 156 x 55 mm		275 x 208 x 75 mm		345 x 260 x 67mm	
Mounting cutout (WxH)		198 x 142mm		261 x 194 mm		329 x 238mm	
Weight		approx. 1.8 kg		approx. 2.6 kg		approx. 3.7kg	

XVS400 12.1", 15" color			
	12.1"		15"
PLC function	upgradeable		
Front	Standard		
Infra-red touch, safety glass, non-reflective	XVS-440-12MPI-1-10 139975	XVS-460-15MPI-1-10 139976	
Resistive touch, glass, non-reflective	XVS-430-12MPI-1-10 139974	-	
Display	TFT-LCD color 12.1"		TFT-LCD color 15"
Resolution	SVGA 800 x 600		XVGA 1024 x 768
Number of usable colors	65'536		
Backlight	2 CCFL, dimmable		4 CCFL, dimmable
Processor	RISC 32Bit, 400MHz		
Memory	64MB		
Retain memory	32kB		
Internal Flash memory	1.5MB linear		
optional memory cards	2 x CompactFlash		
Operating system	WinCE		
Interfaces onboard	Ethernet, RS232, USB-Host, USB-Device, Profibus		
Rated value	24VDC		
Protection type	IP65 front, IP20 rear		
Dimensions device (WxHxD)	361 x 279 x 67mm		427 x 332 x 73mm
Mounting cutout (WxH)	344 x 262mm		410 x 315mm
Weight	approx. 4.5kg		approx. 5.8kg







The universal professional

The devices of the XV400 series offer a wide range of communication options. One or two optional communication modules, enabling eight communications at the same time, as well as CAN, Ethernet 10/100Mbit, USB Host, USB Device, RS232 directly onboard ensure maximum flexibility, whether as HMI, HMI-PLC, panel with gateway function or as a connection via Ethernet TCP/IP to the control level. Onboard functions such as WEB browser, FTP server, remote client/ server or OPC client offer not only new networking options and programming options, they also provide customers and users with a considerable innovation edge for their automation solution.

XV400 5.7"; 8.4" color				
	5.7"		5.7" stainless steel	8.4"
PLC function	upgradeable			
Front	Standard	Stainless steel	Standard	
Infra-red touch, safety glass, non-reflective	XV-460-57TQB-1-10 139897	XV-460-57TQB-1-50 139898	XV-460-84TVB-1-10 139900	
Resistive touch, glass, non-reflective	XV-450-57TQB-1-10 139899	-	-	
Display	TFT-LCD color 5.7"			TFT-LCD color 8.4"
Resolution	QVGA 320 x 240			VGA 640 x 480
Number of usable colors	65'536			
Backlight	LED, dimmable			2 CCFL, dimmable
Processor	RISC 32Bit, 400MHz			
Memory	64MB			
Retain memory	32kB			
Internal Flash memory	1.5MB linear			
Optional memory cards	1 x CompactFlash			
Operating system	WinCE			
Interfaces onboard	Ethernet, RS232, USB-Host, USB-Device, CAN			
Slots for communication modules	1			
Rated value	24VDC			
Protection type	IP65 front, IP20 rear			
Dimensions device (WxHxD)	212 x 156 x 76mm			275 x 208 x 95mm
Mounting cutout (WxH)	198 x 142mm			261 x 194mm
Weight	approx. 1.9kg	approx. 2.3kg	approx. 3.0kg	



- 1 RS232
- 2 CAN
- 3 USB Host
- 4 Ethernet
- 5 Communication module
- 6 CompactFlash

<p>XV400 10.4", 12.1" color</p>								
		10.4"		10.4" stainless steel		12.1"		12.1" stainless steel
PLC function	upgradeable							
Front	Standard		Stainless steel		Standard		Stainless steel	
Infra-red touch, safety glass, non-reflective	XV-440-10TVB-1-10 139904		XV-440-10TVB-1-50 139908		XV-440-12TSB-1-10 139911		XV-440-12TSB-1-50 139915	
Resistive touch, glass, non-reflective	XV-430-10TVB-1-10 139902		-		XV-430-12TSB-1-10 139909		-	
Display	TFT-LCD color 10.4"				TFT-LCD color 12.1"			
Resolution	VGA 640 x 480				SVGA 800 x 600			
Number of usable colors	65'536							
Backlight	2 CCFL, dimmable							
Processor	RISC 32Bit, 400MHz							
Memory	64MB							
Retain memory	32kB							
Internal Flash memory	1.5MB linear							
Optional memory cards	2 x CompactFlash							
Operating system	WinCE							
Interfaces onboard	Ethernet, RS232, USB-Host, USB-Device, CAN							
Slots for communication modules	2							
Rated value	24VDC							
Protection type	IP65 front, IP20 rear							
Dimensions device (WxHxD)	345 x 260 x 93mm				361 x 279 x 93mm			
Mounting cutout (WxH)	329 x 238mm				344 x 262mm			
Weight	approx. 4.1kg		approx. 5.3kg		approx. 4.5kg		approx. 5.7kg	

IP69K

Protected against the ingress of water with highpressure and steam

The XV400 5.7" with stainless steel front is designed for areas where highpressure cleaners are used such as in the food industry. The IP69K protection class even guarantees absolute water tightness in applications subject to frequent cleaning.



XV-460-57TQB-1-50

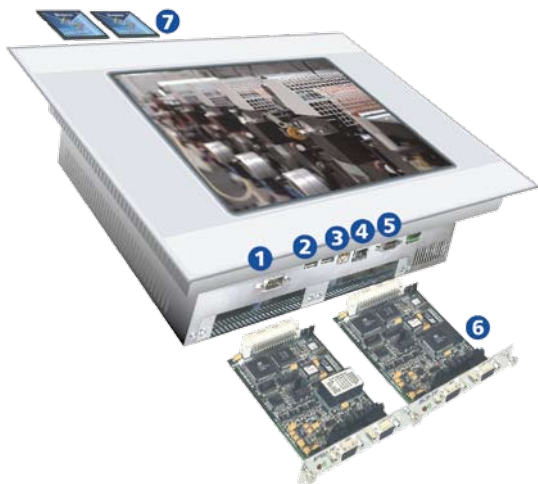
EX-Zone 1

For use in explosive atmosphere

XV400 10.4" / 12.1" with stainless steel front are designed for use in areas where an explosive atmosphere consisting of a mixture of air and flammable substances in the form of gas, vapor or mist is likely to occur in normal operation occasionally, such as in the chemical, pharmaceutical and food industry as well as in oil refineries. When integrated in pressurized enclosures, this device meets the protection requirements for Zone 1, category 2G EEx p.




XV-440-10TVB-1-50
XV-440-12TSB-1-50

XV400 15" color	 <p>15"</p>	 <p>15" stainless steel</p>
	upgradeable	
PLC function	upgradeable	
Front	Standard	Stainless steel
Infra-red touch, safety glass, non-reflective	XV-460-15TXB-1-10 139916	XV-460-15TXB-1-50 139918
Resistive touch, glass, non-reflective	-	-
Display	TFT-LCD color 15"	
Resolution	XGA 1'024 x 768	
Number of usable colors	65'536	
Backlight	4 CCFL, dimmable	
Processor	RISC 32Bit, 400MHz	
Memory	64MB	
Retain memory	32kB	
Internal Flash memory	1.5MB linear	
Optional memory cards	2 x CompactFlash	
Operating system	WinCE	
Interfaces onboard	Ethernet, RS232, USB-Host, USB-Device, CAN	
Slots for communication modules	2	
Rated value	24VDC	
Protection type	IP65 front, IP20 rear	
Dimensions device (WxHxD)	427 x 332 x 99mm	
Mounting cutout (WxH)	410 x 315mm	
Weight	approx. 6.2kg	approx. 7.5kg




- 1 CAN
- 2 2 x USB Host
- 3 USB Device
- 4 Ethernet
- 5 RS232
- 6 2 x slot for communication module
- 7 2 x CompactFlash

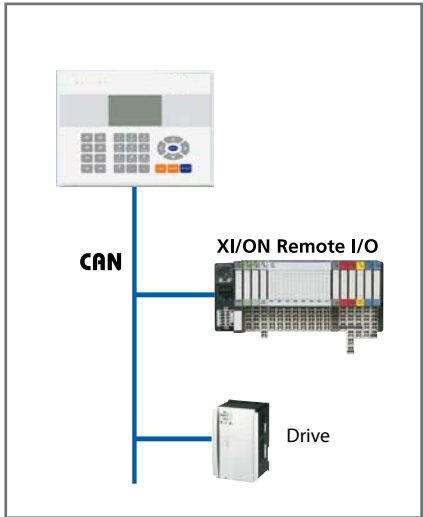
The control panel XVM400 is a portable display and operation panel for industrial applications. Already included in the delivery is the Galileo runtime. With this industrial proven visualization tool you can create in shortest time considerable sized and complex applications. Galileo is designed to work in every market segment and acts as an universal projecting environment for all Eaton Automation products. The Ethernet interface offers a high number of protocols to established control systems. Also the hardware is designed to cover any eventuality that comes up: A robust concept of the panel and patented display guarantees a save fall from a height of up to 1.5 m. Operation with the left and right hand, a good readable display, variable cable output, different holding possibilities, three-step acknowledgement button, integrated emergency stop and a further 31 buttons that can be accessed directly in Galileo guarantees a maximum of possibilities.

XVM400 6.5" color	 XVM-430-65TVB-1-11		 XVM-450-65TVB-1-11		 XVM-410-65TVB-1-11	
	PLC function		no			
Front		Standard				
Touch		Resistive				
Display		TFT-LCD (color display) 6.5"				
Resolution		VGA 680x480				
Number of usable colors		65536 colors				
Backlight		2 CCFL, dimmable				
Operation elements		2 3-position enabling switches, twin circuit; temergency stop switch, twin circuit	2 3-position enabling switches, twin circuit; temergency stop switch, twin circuit; key switch, (3 positions); handwheel	2 3-position enabling switches, twin circuit; key switch, (3 positions); handwheel		
Processor		Xscale PXA 270, 416 MHz				
Memory		64MB, 64 MB SDRAM				
Optional memory cards		-				
Operating system		WinCE				
Visualization software		Galileo				
Interfaces onboard		Ethernet, USB-Host, RS232				
Slots for communication modules		-				
Rated value		24VDC				
Protection type		IP65				
Dimensions device		Ø 250 mm, height 125 mm				
Weight		approx. 1.3 kg				
Article no.		139996	139998	139997		



The XVC100 compact display PLC integrates an operator panel with text display and a powerful compact PLC in one device. This device concept offers a wide range of automation and networking options. A fully-fledged compact PLC with digital and analog inputs and outputs is integrated behind the membrane keyboard with an 8 x 20 character display. The integrated CAN bus allows the connection of remote peripheral devices. All connectors can be accessed from the rear. The PLC is programmed in compliance with the IEC 61131-3 industrial standard, thus turning the XVC100 display PLC into a universal device for automation applications. A user-friendly PLC function library is available for the simple and efficient programming of visualization functions.

<p>XVC100 mono</p>	 <p>XVC-101-C192K-K82</p>
PLC function	integrated
Front	Standard
Operation	Membrane keyboard
Display	Passive Matrix Mono LC-Display
Active display area	approx. 71 x 39 mm
Resolution	128 x 64
Backlight	LED
Number of keys	28, (9 with LED)
Processor	c166
Data / program memory	56 kB / 384 kB
Retain memory	8 kB
Optional memory card	1 x CompactFlash
I/Os onboard	10 digital inputs 8 digital outputs, 24 V/0,5 A 8 digital inputs/outputs configurable 2 analog inputs, 0 – 10 V/10 Bit 2 analog outputs, +/-10 V/12 Bit 2 counter inputs, 50 kHz 2 interrupt inputs 1 encoder inputs, 50 kHz
Interfaces onboard	CAN, RS232
Rated value	24VDC
Protection type	IP65 front, IP20 rear
Dimensions device (WxHxD)	212 x 156 x 60 mm
Weight	approx. 0.9 kg
Article no.	139929



The XVC100 provides the machine and system builder with a low-cost device for a wide range of tasks whilst still offering the tried and tested features and the user-friendly project design features. The rugged and compact design enables applications that were previously impossible due to space or price restrictions.



Licensing

Licensing XV100, XV150, XV200, XVS400 and XV400

The range of functions possible for each device is determined by means of license points that are uniquely assigned to the device concerned. Additional license points can be assigned to the device by means of license product papers (see Accessories XV license product papers). Licensing is carried out via the Internet at www.eaton-automation.com/license.

Entering the license product paper and device series number on the web page provides you with the license code and a license confirmation via email for your production documents. You enter the license code via the licensing menu on the device and thus increase the number of internal license points on the device.

Number of required license points depending on the required functionality:

Runtime / Tools	Onboard interface	License points
GALILEO-Runtime	-	100
EPAM-Runtime	-	100 ¹⁾
XSoft-CoDeSys-2-Runtime	-	100
CE Telediag	RS232	40
S7 PG Router	Ethernet and Profibus	80
CAN Monitor	CAN	-
DXS Remote (DXS communication)	Ethernet	80
Galileo Open (for XP700 / standard PC)	-	-

Communication	Onboard interface	License points		
		XSoft-CoDeSys-2	GALILEO	EPAM
Programming access	Ethernet	0	0	0
CoDeSys-SYMArti local (GALILEO/EPAM <-> XSoft-CoDeSys-2)	Local	0	0	0
CoDeSys-SYMArti external	Ethernet	0	40	0
A.Bradley DF1	RS232	-	40	-
A.Bradley EtherNet/IP	Ethernet	-	120	-
Beckhoff TwinCAT ADS	Ethernet	-	80	-
CANopen, Master	CAN	0	-	-
CANopen, Device (Slave)	CAN	0	40	-
DXS Remote (DXS communication)	Ethernet	-	80	-
Modbus TCP/IP	Ethernet	-	80	-
Modbus RTU	RS232	-	40	-
Eaton easy800/MFD	RS232	-	40	-
Eaton Sucom A	RS232	-	40	-
Eaton Suconet K on XVH342-57SKS	Suconet K	-	0	-
Profibus DP-Master (1,5 Mbaud)	Profibus	40	-	-
Siemens Industrial Ethernet	Ethernet	-	80	-
Siemens MPI	Profibus	-	40	-
Siemens PPI	Profibus	-	40	-
Siemens S7 Profibus Standard Profile	Profibus	-	40	-

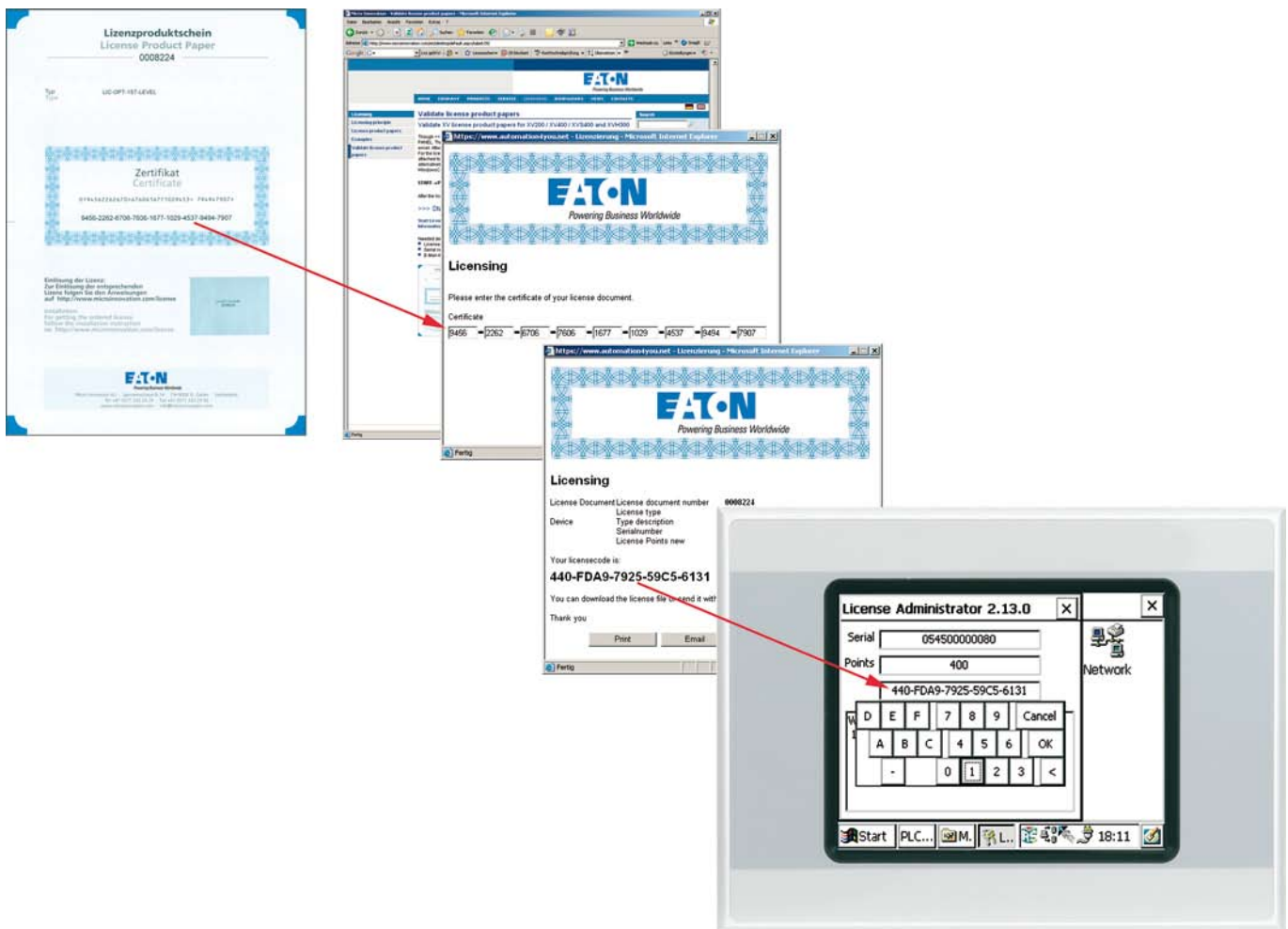
Notes: 1) A LIC-HMI-EPAM-STD license product paper is required for the operation of EPAM runtime on XV400, XVS400 and XVH300 devices. The sticker provided on the license product paper must be affixed to the device. Validation of the certificate via the Internet is unnecessary.

Calculation of the required license points

To use the PLC function in accordance with the applicable license conditions, the device license must be extended explicitly using a specific license product paper, see table „XV license product papers“. These license product papers contain a PLC license sticker which must be affixed to the device. Add the required license points for each of the external communication options you use. Communication to several devices with the same protocol only has to be counted once. Deduct the number of points already on the device (e.g. 140) from the total. The resulting difference is the number of license points that must be added using the license product papers.

Validating license product papers

The validation of license product paper couldn't be simpler. Once you have entered the license product paper and the device series number on the Internet page www.eaton-automation.com/license the license code is issued immediately for activating the device functions required. After the license code is entered on the XV100, XV150, XV200, XVS400 or XV400 device, the additional license points are added directly to the device.



Note: You can find various licensing examples on our website www.eaton-automation.com: Licensing - License Produkt Papers - Examples.

Accessories

Description	Type / Article no.	For use with
Windows CE licenses		
WinCE 3.0 Standard runtime license with license sticker	LIC-OS-CE30 140405	XV-2..., XVS-4..., XV-4...
WinCE 5.0 Core runtime license with license sticker	LIC-OS-CE50-C 140406	XV-1..., XV-2..., XVS-4..., XV-4...
WinCE 5.0 Professional Plus runtime license with license sticker	LIC-OS-CE50-PP 140408	XV-2..., XVS-4..., XV-4...
Memory cards		
SD memory card, min. 128MB, without operating system	MEMORY-SD-A1-5 139807	XV-1...
CompactFlash, min. 128MB, without operating system	MEMORY-CF-A1-S 139528	XV-2..., XVS-4..., XV-4...
CompactFlash, min. 128MB, bootable with WinCE 3.0, without WinCE license	OS-FLASH-A1-S 140366	XV-2..., XVS-4..., XV-4...
CompactFlash, min. 128MB, bootable with WinCE 5.0, without WinCE license	OS-FLASH-A1-C 140368	XV-2..., XVS-4..., XV-4...
XV license product paper		
License product paper 40 POINTS	LIC-OPT-1ST-LEVEL 140391	XV-1..., XV-2..., XVS-4..., XV-4...
License product paper 80 POINTS	LIC-OPT-2ND-LEVEL 140392	XV-1..., XV-2..., XVS-4..., XV-4...
License product paper 160 POINTS	LIC-OPT-3RD-LEVEL 140393	XV-2..., XVS-4..., XV-4...
License product paper PLC with license sticker COMPACT	LIC-OPT-MXP-COMPACT 142581	XV-1...
License product paper PLC with license sticker LIGHT	LIC-OPT-MXP-LIGHT 140388	XV-2xx-57BAS, XV-2xx-57CNN
License product paper PLC with license sticker SMALL	LIC-OPT-MXP-SMALL 140389	XV-2xx-57MPN, XVS-4xx-57..., XVS-4xx-8..., XV-4xx-57..., XV-4xx-8...
License product paper PLC with license sticker MEDIUM	LIC-OPT-MXP-MEDIUM 140390	XVS-4xx-10..., XVS-4xx-12..., XV-4xx-10..., XV-4xx-12...
Communication modules for XV400 devices		
Multiprotocol board	COM-MPB1-TP 139850	XV-4...
Multiprotocol board MPI	COM-MPB2-TP 139847	XV-4...
Profibus DP-Master (12 MBaud)	COM-DPM-MC2 139853	XV-4...
Profibus DP-Slave (12 MBaud)	COM-PDT-TP 139849	XV-4...
EIB (3release)	COM-EIB2-TP 139852	XV-4...
Accessories for XVM400 (Mobile Panel)		
Wall holder for mobile panel incl. cable holder	KETOP WB095 139999	XVM-4...
Terminal box mobile panel, outside control panel IP 65	KETOP CB211 140002	XVM-4...
Cable set mobile panel 5m	KETOP TT050 MV1 140000	XVM-4...
Cable set mobile panel 10m	KETOP TT100 MV1 140001	XVM-4...
Cable set mobile panel 15m	KETOP TT150 MV1 140005	XVM-4...
Strapping plug emergency switch mobile panel	KETOP BC001 140004	XVM-4...
Spare Key, 2 pieces	KETOP EKY001 140006	XVM-45x..., XVM-41x...

Accessories

Description	Type / Article no.	For use with
Additional fixing brackets		
Additional fixing brackets for IP65 Set of retaining brackets for mounting the device (4 retaining brackets with threaded pin)	ACCESSOIRES-HKS-IP65 139809	XVS-4xxx XV-4...
Batteries		
Spare batteries	ACCESSOIRES-BAT01x 139523	XVC-1...
Device accessories (supplied with the device)		
Device accessories as replacement - 8 Retaining brackets for mounting the device - 8 Threaded pins for mounting the device - 1 Sealing strip for mounting the device - 1 Power supply connector - 1 Touch pen	ACCESSOIRES-TP-57-KG-1 139837	XV-2...
Device accessories as replacement - 1 Set of retaining brackets for mounting the device (4 retaining brackets with threaded pin) - 1 Sealing strip for mounting the device - 1 Power supply connector - 1 Touch pen	ACCESSOIRES-TP-57-RES-1 139827	XVS-4xx-57... XV-4xx-57...
Device accessories as replacement - 2 Set of retaining brackets for mounting the device (4 retaining brackets with threaded pin) - 1 Sealing strip for mounting the device - 1 Power supply connector - 1 Touch pen	ACCESSOIRES-TP-10/12-RES-1 139831	XVS-4xx-10... XVS-4xx-12... XV-4xx-10... XV-4xx-12...

List of the most common protocols:

Protocol	Required communication module for the XV400 devices
EIB (3rd release)	COM-EIB2-TP
Matsushita FP Series	COM-MPB1-TP / COM-MPB2-TP
Mitsubishi A-Series / F-Series	COM-MPB1-TP / COM-MPB2-TP
Eaton Suconet	COM-MPB1-TP / COM-MPB2-TP
Omron C- H- K-Series	COM-MPB1-TP / COM-MPB2-TP
Telemecanique Unitelway	COM-MPB1-TP / COM-MPB2-TP
Profibus DP-Master (12MBaud)	COM-DPM-MC2
Profibus DP-Slave (12MBaud)	COM-PDP-TP
Siemens MPI	COM-MPB2-TP

