

# New Items Catalogue

## Automation System

### Automation and Visualization

*xSystem*

**1** Embedded HMI PLC  
XV400

*xSystem*

**2** HMI  
XVH300  
XV400

*xSystem*

**3** Modular PLC  
XC100/200  
XI/OC

*xSystem*

**4** Remote I/O  
XI/ON

*xSystem*

**5** Software  
XSoft-Professional  
XSoft-EPAM  
XSoft-GALILEO

Moeller NK2720-1151

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HMI or combined HMI-PLC – with the XV400 series, the customer decides on the device functions and the preferred project engineering tool.

Devices in the XV400 series offer a very wide range of communication options. CANopen, Ethernet 10/100Mbit, USB Device, USB Host, RS232 directly on board offer maximum flexibility - whether as HMI, HMI-PLC, as a panel with gateway functionality, or connected to the supervisory level via Ethernet TCP/IP. Optional communication cards (PROFIBUS DP master/slave, MPI, DeviceNet etc.) round off the performance spectrum.

On-board functionality such as WEB browser, FTP server, Remote Client/Server or OPC Client/Server not only offer new possibilities for networking and programming, they also provide customers and users with an innovative leap for their automation.



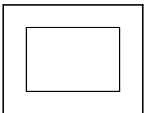
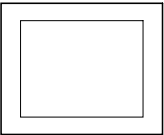
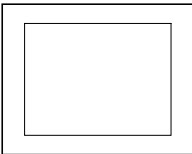
#### Features of 5.7" devices:

- 5.7" STN Display
- 32 bit/400 MHz RISC CPU
- Windows™ CE
- Resistive or Infra-red Touch
- 1 slot for CompactFlash™
- 1 slot for communication modules
- Multitasking-capable PLC
- Vertical or horizontal mounting is possible

#### Features of 10" and 12" devices:

- 10.4 or 12.1" TFT display
- 32 bit/400 MHz RISC CPU
- Windows™ CE
- Resistive or Infra-red Touch
- 2 slots for CompactFlash™
- 2 slots for communication modules
- Multitasking-capable PLC
- Vertical or horizontal mounting is possible

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Display	Front version	Screen diagonal	Display area	Resolution	Slots for communication cards	Type Article no.	Price see price list	Std. pack
			Inch	mm	Pixel			
<b>Touch Display HMI-PLC XV400</b>								
Processor RISC CPU, 32 bit, 400 MHz Data/project memory: 1.5 MB/32 – 64 MB Display: 5.7" STN color LCD, 256 colours; 10.4"/12" TFT color LCD, 65535 colours Integrated interfaces: Ethernet (programming interface/SYMARTi communication), CANopen, RS232 Communication slots for communication modules Approvals: UL/c-UL Explosion protection: zone 22, category 3D Software: visualization = XSoft-GALILEO or XSoft-EPAM, Programming = XSoft-Professional Basic device with 140 points enable communication via SYMARTi or on-board interface For additional communication and PLC functionality → see Licensing at <a href="http://www.moeller.net/support">www.moeller.net/support</a> CompactFlash™ with operating system is required → see Accessories: XT-OS-FLASH...								
	IR-Touch (infra-red optical grid), robust, scratch-proof front (laminated safety glass)	Standard film	5.7	118 x 89	320 x 240	1	XV-442-57CQB-X-13-1 289797	1 off
		Satin-finish brushed stainless steel	5.7	118 x 89	320 x 240	1	XV-442-57CQB-X-50-1 290435	
	Resistive-touch, absolutely plane (seamless) front	Standard film	5.7	118 x 89	320 x 240	1	XV-432-57CQB-X-13-1 289798	
	IR-Touch (infra-red optical grid), robust, scratch-proof front (laminated safety glass)	Standard film	10.4	211 x 158	640 x 480	2	XV-440-10TVB-X-13-1 289799	
		Satin-finish brushed stainless steel	10.4	211 x 158	640 x 480	2	XV-440-10TVB-X-50-1 290436	
	Resistive-touch, absolutely plane (seamless) front	Standard film	10.4	211 x 158	640 x 480	2	XV-430-10TVB-X-13-1 289830	
	IR-Touch (infra-red optical grid), robust, scratch-proof front (laminated safety glass)	Standard film	12.1	246 x 185	800 x 600	2	XV-440-12TSB-X-13-1 289831	
		Satin-finish brushed stainless steel	12.1	246 x 185	800 x 600	2	XV-440-12TSB-X-50-1 290437	
	Resistive-touch, absolutely plane (seamless) front	Standard film	12.1	246 x 185	800 x 600	2	XV-430-12TSB-X-13-1 289832	

Description		For use with	Type Article no.	Price see price list	Std. pack
<b>Memory cards</b>					
small	CompactFlash with operating system	XVH-3.. XV-4..	<b>XT-OS-FLASH-S</b> 290319		1 off
large	CompactFlash with operating system	XVH-3.. XV-4..	<b>XT-OS-FLASH-L</b> 290340		1 off
<b>Communication cards</b>					
–	Multiple protocol board	XV-4..	<b>XT-MPB1-TP</b> 289836		1 off
–	Multiple protocol board MPI	XV-4..	<b>XT-MPB2TP</b> 289837		
–	PROFIBUS-DP master	XV-4..	<b>XT-DPM-MC2</b> 289838		
–	PROFIBUS-DP slave	XV-4..	<b>XT-PDP-TP</b> 289839		
–	CAN communication module	XV-4..	<b>XT-BCP-TP</b> 289850		
–	EPROM DeviceNet for XT-BCP-TP	XV-4..	<b>XT-BCB-TP-EPROM-DNET</b> 289851		
–	EPROM CANOpen for XT-BCB-TP	XV-4..	<b>XT-BCB-TP-EPROM-CANOPEN</b> 289852		
<b>Connection cable</b>					
Ethernet cross-cable for programming					
2 m length	–	XVH-3... XV-4... MC-HPG-... XVC-601-... XCC-601-...	<b>XT-CAT5-X-2</b> 256487		1 off
5 m length	–	XVH-3... XV-4... MC-HPG-... XVC-601-... XCC-601-...	<b>XT-CAT5-X-5</b> 256488		1 off
<b>XV licenses</b>					
–	PLC license	XV400 5.7"	<b>XT-LIC-PLC-XV-SMALL</b> 290438		1 off
–	PLC license	XV400 10.4", 12"	<b>XT-LIC-PLC-XV-MEDIUM</b> 290443		
–	License certificate 40 POINTS	XVH-3.. XV-4..	<b>XT-LIC-OPT-40</b> 290445		
–	License certificate 80 POINTS	XVH-3.. XV-4..	<b>XT-LIC-OPT-80</b> 290447		
<b>Additional fixing clamps</b>					
–	Additional fixing clamps for IP65	XVH-3.. XV-4..	<b>XT-HKS-IP65</b> 292276		1 off

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### Licensing HMI-PLC

The range of functions is decided by licence points, which are clearly allocated to the component.

All XV400 components already contain 140 licence points and therefore permit the use as HMI with an external communication, such as SYMArti or CANopen.

Using licence certificates (→ Accessories XV licenses) you can allocate further licence points to the device. The licensing is carried out via [www.moeller.net/support](http://www.moeller.net/support). If you enter the licence certificate number and device serial number in the Internet portal, you will receive (via e-mail) a licence code and a confirmation of the licence for your production documentation.

Enter the licence code through the licensing menu in the device, and this will increase the number of internal licence points in the device.

#### Note:

If the licence point level of the device is inadequate for the required function, the display box of the touch display will prompt you at regular intervals to extend the licence for the device.

#### Calculation of the required licence points:

Determine the required functions (communication) and add up the licence points needed for these functions. From this sum, deduct the number of licence points (140) already available in the device. The difference is the number of licence points that you need to install through a licence certificate.

### Number of licence points for the XV400 devices, depending on the required functionality:

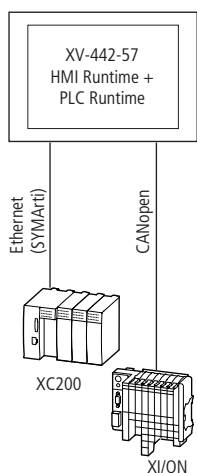
Function	Licence points			
	Runtime 100 100	Communication can be used by ...		
HMI (Galileo or EPAM):				
PLC (XSoft):				
Communication (on board):				
		PLC XSoft-Professional	HMI XSoft Galileo	HMI XSoft EPAM <sup>1)</sup>
Programming input (Ethernet)		0	0	0
SYMArti local (PLC ↔ GALILEO/EPAM)		0	0	0
SYMArti external, (Ethernet)		0	40	0
MODBUS TCP Client, (Ethernet)		–	80	–
SUCOM-A, (RS 232)		0	40	–
MODBUS RTU, (RS 232)		0	40	–
CANopen, Master		0	–	–
CANopen, Slave (Device)		0	40	–
Optional plug-in communication modules (no licence points required):				
XT-MPB1-TP (RS232, TTY,RS485, RS422, RS422 MP) (Suconet K)		–	0	–
XT-MPB2-TP ((RS232, TTY,RS485, RS422, RS422 MP, MPI)		–	0	–
XT-PDP-TP (PROFIBUS-DP Slave)		–	0	–
XT-PDP-TP (PROFIBUS-DP Master)		0	–	–
XT-BCB-TP + XT-BCB-TP-EPROM-DNET (DeviceNet)		–	0	–

<sup>1)</sup> The communication PLC → EPAM takes place exclusively via SYMArti. Variables that are, for instance, linked via CANopen and declared in the PLC project, can of course also be used via the symbol file (SYMArti local) in EPAM.

The following licence certificates are available, depending on the functionality that is needed:

PLC Licence Certificate:	Communication licence certificates:
XT-LIC-PLC-XV-SMALL	XT-LIC-OPT-40
XT-LIC-PLC-XV-MEDIUM	XT-LIC-OPT-80
PLC licence (100 licence points), XV-400-5,7"	40 licence points
PLC licence (100 licence points), XV-400-10,4" , 12"	80 licence points

### Example



Necessary licence points	
HMI Runtime: (Galileo)	100
PLC Runtime: (XSoft)	100
Communication: (CANopen, Master)	0
Communication: (SYMArti external)	40
<b>Total:</b>	<b>240</b>
– already included in XV-442-57:	140
<b>PLC licence certificate required for 100 points</b>	
<b>= XT-LIC-PLC-XV-SMALL</b>	

Cashing in the licence certificates

It is really easy to cash in the licence certificates. When the licence certificate number and the device serial number have been entered on the Moeller Internet page [www.moeller.net/support](http://www.moeller.net/support), the licence code for enabling the device functionality will be produced promptly. When this licence code has been entered into the XVH-300/XV400, the additional licence points will be added directly to the device.

The image illustrates the process of cashing in license certificates. It shows a physical license paper (Lizenzschein) with a certificate (Zertifikat) area. The certificate contains the following information:

Typ	XV400-PLC-EXT-000000	Titel	Moeller GmbH
Auftragsnummer	47881	Moeller-Moeller-Str. 3-11	
Befehlspostfach	12345	81311111	

The certificate also includes a 'Zertifikat' (Certificate) area with a green border and the following information:

1118-0218-1150-2160-7158-9023-0181-2018-1150
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The Moeller website screenshot shows the 'Lizenzierung' (Licensing) page. The user is prompted to enter the certificate number and the license code. The license code is displayed as:

280-AF7D-2DF5-BB63-9707

The License Administrator 2.12.1 software screenshot shows the license code being entered into the 'Points' field. The license code is displayed as:

280-AF7D-2DF5-BB63-9707

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		XV-442-57CQB-X-13-1	XV-442-57CQB-X-50-1	XV-432-57CQB-X-13-1
<b>General</b>				
Standards		EN 50178		
Ambient temperature	°C	0 / +50	0 / +50	0 / +50
Ambient temperature, storage	°C	-20/60	-20/60	-20/60
Relative humidity, non-condensing (IEC 60 068-2-30)	%	10 – 95	10 – 95	10 – 95
Mechanical shock resistance (IEC 60068-2-27)		15 g/11 ms	15 g/11 ms	15 g/11 ms
Vibrations (IEC/EN 60068-2-6)		10 – 57 Hz (± 0.075 mm), 57 – 150 Hz (± 1 g)		
Electromagnetic compatibility (EMC)	Emitted interference	EN 61000-6-4		
	Interference immunity	EN 61000-6-2		
Safety ITE (information technology equipment)		EN 60950		
Degree of protection	Front side (with accessory XT-HKS-IP65)	IP65	IP65	IP65
	Rear	IP20	IP20	IP20
Weight	kg	1.6	1.6	1.6
<b>Display</b>				
Screen diagonal	Inch	5.7	5.7	5.7
Type		STN LCD		
Resolution	Pixel	320 x 240	320 x 240	320 x 240
Display area	mm	118 x 89	118 x 89	118 x 89
Colours	Qty.	256	256	256
Contrast ratio (normally)		Normally 40		
Brightness (normally)	cd/m <sup>2</sup>	150	150	150
Max. viewing angle		Vertical 70° Horizontal 100°	Vertical 70° Horizontal 100°	Vertical 70° Horizontal 100°
Back-lighting		CCFL		
Service life of back-lighting	Hours of op.	50000	50000	50000
<b>Front</b>				
Type		Laminated safety glass, anti-reflective		Polyester film
<b>Operation</b>				
Technology		Infra-red Touch	Infra-red Touch	Resistive-Touch
<b>Power supply</b>				
Rated voltage	V	24 DC	24 DC	24 DC
Admissible range	V	20.4 – 28.8 DC rms	20.4 – 28.8 DC rms	20.4 – 28.8 DC rms
Voltage dips (IEC/EN 61131-2)	ms	10	10	10
Residual ripple	%	≤ 5	≤ 5	≤ 5
Power consumption	<i>P</i> <sub>max.</sub> W	19	19	19
Current consumption	A	0.8	0.8	0.8
Protection against polarity reversal		Yes	Yes	Yes
Fuse		Yes, internal fuse		
Potential isolation		No (0V is at housing potential)		
Battery (service life)		>10 years	>10 years	>10 years
<b>PLC (programmable logic controller)</b>				
Processor		RISC, 32 bit, 400 MHz		
Programming		XSoft Professional		
Network variables		Ethernet or CAN		
RTC (real-time clock)		Yes	Yes	Yes
<b>Visualization</b>				
Software		XSoft-Galileo/XSoft-EPAM		
Character sets		Yes, e.g. Chinese, Japanese,...		
Recipes		Yes	Yes	Yes
Password protection		Yes	Yes	Yes
<b>Interfaces/communication</b>				
Programming interface				
Ethernet	Data transfer rate	Mbit/s	Ethernet	Ethernet
	Connection types		Ethernet	Ethernet
	Potential isolation		Ethernet	Ethernet
RS 232 serial interface	Data transfer rate	KBit/s	Ethernet	Ethernet
	Connection types		Ethernet	Ethernet
	Potential isolation		Ethernet	Ethernet
CANopen	Data transfer rate	KBit/s	125, max. 500	125, max. 500
	Connection types		125, max. 500	125, max. 500
	Potential isolation		125, max. 500	125, max. 500
	Stations	Qty.	125, max. 500	125, max. 500
Slots for communication cards		Qty.	64	64
Slots for CompactFlash cards		Qty.	1	1

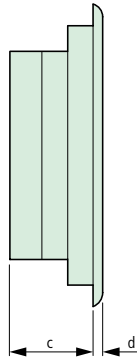
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XV-440-10TVB-X-13-1	XV-440-10TVB-X-50-1	XV-430-10TVB-X-13-1	XV-440-12TSB-X-13-1	XV-440-12TSB-X-50-1	XV-430-12TSB-X-13-1
<b>General</b>					
Standards					
EN 50178					
Ambient temperature	°C	0 / +50	0 / +50	0 / +50	0 / +50
Ambient temperature, storage	°C	-20/60	-20/60	-20/60	-20/60
Relative humidity, non-condensing (IEC 60 068-2-30)	%	10 – 95	10 – 95	10 – 95	10 – 95
Mechanical shock resistance (IEC 60068-2-27)		15 g/11 ms	15 g/11 ms	15 g/11 ms	15 g/11 ms
Vibrations (IEC/EN 60068-2-6)		10 – 57 Hz (± 0.075 mm), 57 – 150 Hz (± 1 g)			
Electromagnetic compatibility (EMC)	Emitted interference	EN 61000-6-4			
	Interference immunity	EN 61000-6-2			
Safety ITE (information technology equipment)		EN 60950			
Degree of protection	Front side (with accessory XT-HKS-IP65)	IP65	IP65	IP65	IP65
	Rear	IP20	IP20	IP20	IP20
Weight	kg	2.8	2.8	3.2	3.2
<b>Display</b>					
Screen diagonal	Inch	10.4	10.4	12.1	12.1
Type		TFT LCD		TFT LCD	
Resolution	Pixel	640 × 480	640 × 480	800 × 600	800 × 600
Display area	mm	211 × 158	211 × 158	246 × 185	246 × 185
Colours	Qty.	65535	65535	65535	65535
Contrast ratio (normally)		Normally 500	Normally 500	Normally 400	Normally 400
Brightness (normally)	cd/m <sup>2</sup>	350	350	300	300
Max. viewing angle		Vertical 100° Horizontal 130°	Vertical 100° Horizontal 130°	Vertical 90° Horizontal 120°	Vertical 90° Horizontal 120°
Back-lighting		CCFL		CCFL	
Service life of back-lighting	Hours of op.	50000	50000	50000	50000
<b>Front</b>					
Type		Laminated safety glass, anti-reflective		Polyester film	
<b>Operation</b>					
Technology		Infra-red Touch	Infra-red Touch	Resistive-Touch	Resistive-Touch
<b>Power supply</b>					
Rated voltage	V	24 DC	24 DC	24 DC	24 DC
Admissible range	V	20.4 – 28.8 DC rms	20.4 – 28.8 DC rms	20.4 – 28.8 DC rms	20.4 – 28.8 DC rms
Voltage dips (IEC/EN 61131-2)	ms	10	10	10	10
Residual ripple	%	≤ 5	≤ 5	≤ 5	≤ 5
Power consumption	<i>P</i> <sub>max.</sub> W	34	34	34	34
Current consumption	A	1.4	1.4	1.4	1.4
Protection against polarity reversal		Yes	Yes	Yes	Yes
Fuse		Yes, internal fuse			
Potential isolation		No (0V is at housing potential)			
Battery (service life)		>10 years	>10 years	>10 years	>10 years
<b>PLC (programmable logic controller)</b>					
Processor		RISC, 32 bit, 400 MHz			
Programming		XSoft Professional			
Network variables		Ethernet or CAN			
RTC (real-time clock)		Yes	Yes	Yes	Yes
<b>Visualization</b>					
Software		XSoft-Galileo/XSoft-EPAM			
Character sets		Yes, e.g. Chinese, Japanese,...			
Recipes		Yes	Yes	Yes	Yes
Password protection		Yes	Yes	Yes	Yes
<b>Interfaces/communication</b>					
Programming interface					
Ethernet	Data transfer rate	Mbit/s	Ethernet	Ethernet	Ethernet
	Connection types		Ethernet	Ethernet	Ethernet
	Potential isolation		Ethernet	Ethernet	Ethernet
RS 232 serial interface	Data transfer rate	KBit/s	Ethernet	Ethernet	Ethernet
	Connection types		Ethernet	Ethernet	Ethernet
	Potential isolation		Ethernet	Ethernet	Ethernet
CANopen	Data transfer rate	KBit/s	125, max. 500	125, max. 500	125, max. 500
	Connection types		125, max. 500	125, max. 500	125, max. 500
	Potential isolation		125, max. 500	125, max. 500	125, max. 500
	Stations	Qty.	125, max. 500	125, max. 500	125, max. 500
Slots for communication cards		Qty.	64	64	64
Slots for CompactFlash cards		Qty.	1	1	1

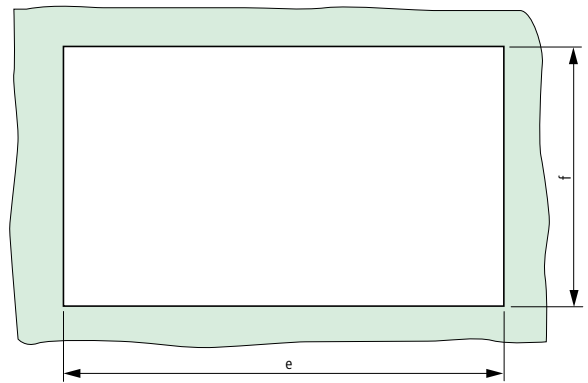
Embedded HMI-PLC

Embedded HMI-PLC

Dimensions



Mounting dimensions



Part no.	a	b	c	d	e	f
XV-4xx-57	212	156	75.5	6	198	142
XV-4xx-10	345	260	88	5	329	238
XV-4xx-12	361	279	88	5	344	262

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<b>Touch Display HMI XVH300</b>	2/3
<b>Touch Display HMI or HMI-PLC XV400</b>	
Die Geräte der XV400-Serie können auch als reine HMI betrieben werden. Die Beschreibung der XV400-Geräte finden Sie in Kapitel 1	
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The XVH-340 (Infra-red Touch) and XVH-330 (Resistive Touch) are specially developed, high-performance data management and visualization systems with Ethernet, USB and communication interfaces (CANopen, MPI or RS232). They are particularly applicable to tasks in machinery and industrial automation. The compact design, especially the shallow mounting depth, bring the most modern HMI technology to even the smallest machine. The replaceable CompactFlash™ provides maximum flexibility. With this device, the user can both define the memory/data size for the project and specify the preferred visualization. In this case, the user chooses between the graphic visualization tool XSoft-GALILEO and the table-oriented visualization tool XSoft-EPAM (based on MS Excel) in conjunction with SymArti communication.



#### XVH-340-57 Infrared Touch

##### Features

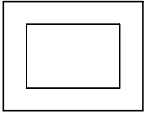
- Ethernet on board
- CANopen, MPI or RS232 on board
- 5.5" STN display
- Infra-red Touch
- Windows™ CE on board
- 1 slot for CompactFlash™
- Vertical or horizontal mounting is possible

#### XVH-330-57 Resistive Touch

##### Features

- Ethernet on board
- CANopen, MPI or RS232 on board
- 5.5" STN display
- Resistive Touch
- Windows™ CE on board
- 1 slot for CompactFlash™
- Vertical or horizontal mounting is possible

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Display	Front version	Screen diagonal Inch	Display area mm	Resolution Pixel	Communication-Interface	Type Article no.	Price see price list	Std. pack
<b>Touch Display HMI XVH300</b>								
Processor: RISC CPU, 32-bit, 200 MHz Data/project memory: 1.5 MB/32 – 64 MB Display: 5.7" STN colour LCD, 256 colours Integrated interfaces: Ethernet (programming interface/SYMArti communication) Small mounting depth (55 mm) Approvals: UL/c-UL Explosion protection: Zone 22, category 3D Software: Visualization: XSoft-GALILEO or XSoft-EPAM Basic units with 140 points allow communication via SYMArti or via on-board interface → See licensing under <a href="http://www.moeller.net/support">www.moeller.net/support</a> Compact Flash with operating system required → see Accessories: XT-OS-FLASH...								
								
IR touch (infra-red light matrix) rugged, scratchproof front (safety glass)	Standard film	5.7	118 × 89	320 x 240	CANopen	<b>XVH-340-57CAN-X-13-1</b> 289795		1 off
	Standard film	5.7	118 × 89	320 x 240	Siemens MPI	<b>XVH-340-57MPI-X-13-1</b> 290337		
	Standard film	5.7	118 × 89	320 x 240	RS 232	<b>XVH-342-57BAS-X-13-1</b> 290426		
Resistive touch, fully seamless front	Standard film	5.7	118 × 89	320 x 240	CANopen	<b>XVH-330-57CAN-X-13-1</b> 289796		
	Standard film	5.7	118 × 89	320 x 240	Siemens MPI	<b>XVH-330-57MPI-X-13-1</b> 290335		
	Standard film	5.7	118 × 89	320 x 240	RS 232	<b>XVH-332-57BAS-X-13-1</b> 290427		

HMI

Description		For use with	Type Article no.	Price see price list	Std. pack
<b>Accessories</b>					
Memory cards					
small	CompactFlash with operating system	XVH-3.. XV-4..	<b>XT-OS-FLASH-S</b> 290319		1 off
large	CompactFlash with operating system	XVH-3.. XV-4..	<b>XT-OS-FLASH-L</b> 290340		1 off
Connection cable Ethernet cross cable for programming					
2 m length	–	XVH-3.. XV-4.. MC-HPG-.. XVC-601-.. XCC-601-..	<b>XT-CAT5-X-2</b> 256487		1 off
5 m length	–	XVH-3.. XV-4.. MC-HPG-.. XVC-601-.. XCC-601-..	<b>XT-CAT5-X-5</b> 256488		1 off
XV licenses					
–	License certificate 40 POINTS	XVH-3.. XV-4..	<b>XT-LIC-OPT-40</b> 290445		1 off
–	License certificate 80 POINTS	XVH-3.. XV-4..	<b>XT-LIC-OPT-80</b> 290447		1 off
Additional fixing brackets					
–	Additional fixing clamps for IP65	XVH-3.. XV-4..	<b>XT-HKS-IP65</b> 292276		1 off

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## Licensing procedure for HMI

The range of functions is decided by licence points, that are clearly allocated to the component.

All XVH300 components already contain 140 licence points and therefore allow the use as HMI and external communication, such as SYMArti or CANopen.

Using licence certificates (→ Accessories XV licenses) you can allocate further licence points to the device. The licensing is carried out via [www.moeller.net/support](http://www.moeller.net/support). If you enter the licence certificate number and device serial number in the Internet portal, you will receive (via e-mail) a licence code and a confirmation of the licence for your production documentation.

Enter the licence code through the licensing menu in the device, and this will increase the number of internal licence points in the device.

### Note:

Should the licence point level of the component not be enough for the necessary function you will be prompted to extend the licence for the device at regular intervals, by the display box of the touch display.

### Calculation of the necessary licence points:

Determine the required functions (communication) and add up the licence points needed for these functions. From this sum, deduct the number of licence points (140) already available in the device. The difference is the number of licence points that you need to install through a licence certificate.

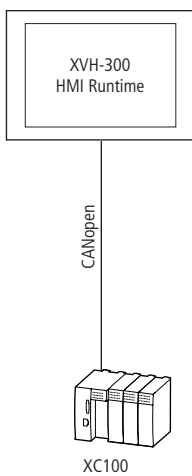
Number of licence points for the XVH300 devices, depending on the required functionality:

Function	Licence points	
	Runtime	Communication can be used by ...
HMI (Galileo or EPAM):	100	
Communication (on board):		XSoft Galileo   XSoft EPAM
Programming input (Ethernet)		0   0
SYMArti external, (Ethernet)		40   0
MODBUS TCP Client, (Ethernet)		80   –
SUCOM-A, (RS 232)		40   –
MODBUS RTU, (RS 232)		40   –
CANopen, Slave		40   –
MPI (RS 485)		40   –

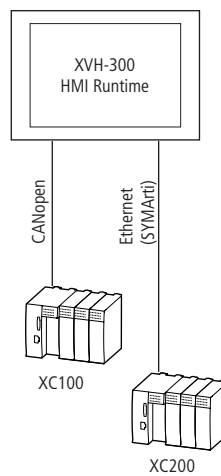
The following licence certificates are available, depending on the functionality that is needed:

Communication licence certificates:	
XT-LIC-OPT-40	40 licence points
XT-LIC-OPT-80	80 licence points

### Examples



Necessary licence points	
HMI Runtime: (Galileo)	100
Communication: (CANopen, Slave)	40
<hr/>	
Total:	140
– already included in the XVH300:	140
<hr/>	
i.e. no licence certificate required	



Necessary licence points	
HMI Runtime: (Galileo)	100
Communication: (CANopen, Slave)	40
Communication Ethernet: (SYMArti)	40
<hr/>	
Total:	180
– already included in the XVH300:	140
<hr/>	
Licence certificate required for 40 points = XT-LIC-OPT-40	

## Cashing in the licence certificates

It is really easy to cash in the licence certificates. When the licence certificate number and the device serial number have been entered on the Moeller Internet page [www.moeller.net/support](http://www.moeller.net/support), the licence code for enabling the device functionality will be produced promptly. When this licence code has been entered into the XVH-300/ XV400, the additional licence points will be added directly to the device.

The image illustrates the licensing procedure through three overlapping windows:

- Physical License Certificate (Left):** A document titled "Lizenzschein License Paper 0034513". It contains fields for "Typ" (XVH300-01/01/000000), "Name" (Moeller GmbH), "Auftragsnummer" (43881), "Moeller-Teilenummer" (Mo-311), "Moeller-Teilenummer" (12345), "Zertifikat" (1118-0218-2160-2160-7158-9023-0181-2028-1090), and "Gerät" (1118-0218-2160-2160-7158-9023-0181-2028-1090). A red arrow points from the certificate number to the web interface.
- Web Interface (Middle):** A Microsoft Internet Explorer window showing the Moeller website's "Lizenzierung" page. The URL is <https://www.automation4you.net/licng/start.aspx>. The page asks for the "Zertifikat" and displays a numeric input field with the value "0913 3804 1306 1159 4001 7370 0456 5383 4005". A red arrow points from the certificate number to this field.
- Software Interface (Right):** A RemoteClient window titled "RemoteClient 192.168.0.240" showing the "License Administrator 2.12.1" interface. It displays the "Serial" (044871000080) and "Points" (240). The "Ihr Lizenzcode lautet:" field shows "280-AF7D-2DF5-BB63-9707". A red arrow points from the certificate number to this field. Below the license code is a numeric keypad with "OK" and "Cancel" buttons.

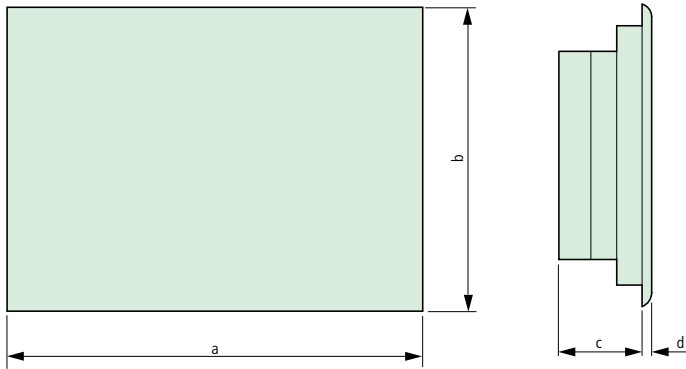
Moeller NK2720-1151

		XVH-340-57CAN-X-13-1	XVH-340-57MPI-X-13-1	XVH-342-57BAS-X-13-1
<b>General</b>				
Standards		EN 50178		
Ambient temperature	°C	0/+50	0/+50	0/+50
Ambient temperature, storage	°C	-20/60	-20/60	-20/60
Relative humidity, non-condensing (IEC 60 068-2-30)	%	10 – 95	10 – 95	10 – 95
Mechanical shock resistance (IEC 60068-2-27)		15 g/11 ms	15 g/11 ms	15 g/11 ms
Vibrations (IEC/EN 60068-2-6)		10 – 57 Hz (± 0.075 mm), 57 – 150 Hz (± 1 g)		
Electromagnetic compatibility (EMC)	Emitted interference	EN 61000-6-4	EN 61000-6-4	EN 61000-6-4
	Interference immunity	EN 61000-6-2	EN 61000-6-2	EN 61000-6-2
Safety ITE (information technology equipment)		EN 60950	EN 60950	EN 60950
Degree of protection	Front (with XT-HKS-IP65 accessory)	IP65	IP65	IP65
	Rear	IP20	IP20	IP20
Weight	kg	1.4	1.4	1.4
<b>Display</b>				
Screen diagonal	Inch	5.7	5.7	5.7
Type		STN LCD	STN LCD	STN LCD
Resolution	Pixel	320 x 240	320 x 240	320 x 240
Display area	mm	118 × 89	118 × 89	118 × 89
Colours	Qty.	256	256	256
Contrast ratio (normally)		40	40	40
Brightness (normally)	cd/m <sup>2</sup>	150	150	150
Max. viewing angle		Vertical 70°	Vertical 70°	Vertical 70°
		Horizontal 100°	Horizontal 100°	Horizontal 100°
Back-lighting		1 × CCFL	1 × CCFL	1 × CCFL
Service life of back-lighting	Hours of op.	50000	50000	50000
<b>Front plate</b>				
Type		Glass, non-reflective, scratchproof		
<b>Operation</b>				
Technology		Infra-red touch		
<b>Power supply</b>				
Rated voltage	V	24 DC	24 DC	24 DC
Admissible range	V	20.4 – 28.8 DC rms	20.4 – 28.8 DC rms	20.4 – 28.8 DC rms
Voltage dips (IEC/EN 61131-2)	ms	20	20	20
Residual ripple	%	≤ 5	≤ 5	≤ 5
Power consumption	<i>P</i> <sub>max.</sub> W	14	14	14
Current consumption	A	1.1	1.1	1.1
Protection against polarity reversal		Yes	Yes	Yes
Fuse		Yes, internal fuse		
Potential isolation		No (0 V connection to housing potential)		
Battery		CR2032 (190m A/h)		
Battery (service life)		> 10 years (de-energized)		
<b>Visualization</b>				
Processor		RISC, 32 Bit, 200 MHz		
Programming		XSoft-Galileo, XSoft-EPAM		
<b>Interface/communication</b>				
Programming interface				
Ethernet	Data transfer rate	Mbit/s	10/100	10/100
	Connection types		RJ45	RJ45
	Potential isolation		Yes	Yes
RS 232 serial interface	Data transfer rate	KBit/s	–	115
	Connection types		–	CiA, 9-pole Sub-D connector
	Potential isolation		–	No
CANopen	Data transfer rate	KBit/s	125, max. 500 kBit/s	–
	Connection types		CiA, 9-pole Sub-D connector	–
	Potential isolation		Yes	–
Siemens MPI	Stations	Qty.	64	–
	Data transfer rate		–	Max. 1000 kBit/s
	Connection types		–	CiA, 9-pole Sub-D connector
USB interface	Potential isolation		–	Yes
	Stations	Qty.	–	31
			1 × USB 1.1	1 × USB 1.1
USB connection		Type B (4-pole)	Type B (4-pole)	Type B (4-pole)

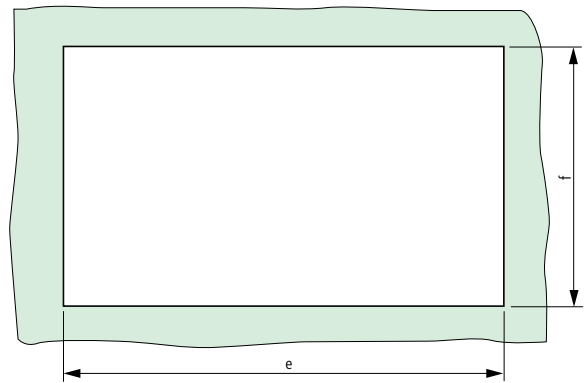
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		XVH-330-57CAN-X-13-1	XVH-330-57MPI-X-13-1	XVH-332-57BAS-X-13-1
<b>General</b>				
Standards		EN 50178		
Ambient temperature	°C	0/+50	0/+50	0/+50
Ambient temperature, storage	°C	-20/60	-20/60	-20/60
Relative humidity, non-condensing (IEC 60 068-2-30)	%	10 – 95	10 – 95	10 – 95
Mechanical shock resistance (IEC 60068-2-27)		15 g/11 ms	15 g/11 ms	15 g/11 ms
Vibrations (IEC/EN 60068-2-6)		10 – 57 Hz (± 0.075 mm), 57 – 150 Hz (± 1 g)		
Electromagnetic compatibility (EMC)	Emitted interference	EN 61000-6-4	EN 61000-6-4	EN 61000-6-4
	Interference immunity	EN 61000-6-2	EN 61000-6-2	EN 61000-6-2
Safety ITE (information technology equipment)		EN 60950	EN 60950	EN 60950
Degree of protection	Front (with XT-HKS-IP65 accessory)	IP65	IP65	IP65
	Rear	IP20	IP20	IP20
Weight	kg	1.4	1.4	1.4
<b>Display</b>				
Screen diagonal	Inch	5.7	5.7	5.7
Type		STN LCD	STN LCD	STN LCD
Resolution	Pixel	320 x 240	320 x 240	320 x 240
Display area	mm	118 × 89	118 × 89	118 × 89
Colours	Qty.	256	256	256
Contrast ratio (normally)		40	40	40
Brightness (normally)	cd/m <sup>2</sup>	150	150	150
Max. viewing angle		Vertical 70°	Vertical 70°	Vertical 70°
		Horizontal 100°	Horizontal 100°	Horizontal 100°
Back-lighting		1 × CCFL	1 × CCFL	1 × CCFL
Service life of back-lighting	Hours of op.	50000	50000	50000
<b>Front plate</b>				
Type		Polyester film		
<b>Operation</b>				
Technology		Resistive touch		
<b>Power supply</b>				
Rated voltage	V	24 DC	24 DC	24 DC
Admissible range	V	20.4 – 28.8 DC rms	20.4 – 28.8 DC rms	20.4 – 28.8 DC rms
Voltage dips (IEC/EN 61131-2)	ms	20	20	20
Residual ripple	%	≤ 5	≤ 5	≤ 5
Power consumption	<i>P</i> <sub>max.</sub> W	14	14	14
Current consumption	A	1.1	1.1	1.1
Protection against polarity reversal		Yes	Yes	Yes
Fuse		Yes, internal fuse		
Potential isolation		No (0 V connection to housing potential)		
Battery		CR2032 (190m A/h)		
Battery (service life)		> 10 years (de-energized)		
<b>Visualization</b>				
Processor		RISC, 32 Bit, 200 MHz		
Programming		XSoft-Galileo, XSoft-EPAM		
<b>Interface/communication</b>				
Programming interface				
Ethernet	Data transfer rate	Mbit/s	10/100	10/100
	Connection types		RJ45	RJ45
	Potential isolation		Yes	Yes
RS 232 serial interface	Data transfer rate	KBit/s	–	115
	Connection types		–	CiA, 9-pole Sub-D connector
	Potential isolation		–	No
CANopen	Data transfer rate	KBit/s	125, max. 500 kBit/s	–
	Connection types		CiA, 9-pole Sub-D connector	–
	Potential isolation		Yes	–
Siemens MPI	Stations	Qty.	64	–
	Data transfer rate		–	Max. 1000 kBit/s
	Connection types		–	CiA, 9-pole Sub-D connector
USB interface	Potential isolation		–	Yes
	Stations	Qty.	–	31
			1 × USB 1.1	1 × USB 1.1
USB connection		Type B (4-pole)	Type B (4-pole)	Type B (4-pole)

Dimensions



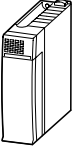
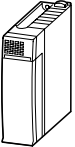
Mounting dimensions



Part no.	a	b	c	d	e	f
XVH-3xx-57	212	156	55	6	198	142

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<b>Technical data</b>	<b>3/3</b>
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XI/OC Communication Module	3/4
Line filter	3/5
<b>Engineering</b>	<b>3/6</b>
<b>Dimensions</b>	<b>3/7</b>

Description		Type Article no.	Price see price list	Std. pack
<b>XI/OC</b>				
<ul style="list-style-type: none"> <li>• Compact I/O system for connection to XC100/200 Modular PLCs</li> <li>• XC100/200 expandable with up to 15 XI/OC modules</li> <li>• Optionally, screw terminals or spring-loaded terminals for digital/analog modules</li> </ul>				
<b>Analog modules</b>				
	Inputs	4 inputs for thermocouples Type K, J, L, B, N, E, R, S, T	<b>XIOC-4AI-T</b> 289933	1 off
	<b>Communication modules</b>			
	–	PROFIBUS DP slave module	<b>XIOC-NET-DP-S</b> 286419	1 off
	–	Suconet K master module	<b>XIOC-NET-SK-M</b> 289982	1 off
<b>Accessories</b>				
<b>Empty module</b>				
–	Empty module to cover free XI/OC slots		<b>XIOC-NOP</b> 288894	1 off
<b>Interface switch</b>				
–	Interface adapter to split the combined RS232/Ethernet interface of the XC200 into RJ45 sockets Use connection cable EASY-NT-30/80/150		<b>XT-RJ45-ETH-RS232</b> 289170	1 off
<b>Filter</b>				
–	Interference suppression of the external 24 V DC supply of the XC100/200 Max. current drawn: 2.2 A		<b>XT-FIL-1</b> 285316	1 off

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		XIOC-4AI-T
<b>General</b>		
Standards		IEC/EN 61131-2 EN 50178
Ambient temperature	°C	0 to +55
Storage	°C	-25 to +70
Vibration resistance		10 – 57 Hz ±0.075 mm 57 – 150 Hz ±1.0 mm
Shock resistance		15 g/11 ms
Impact resistance		500 g/∅ 50 mm ±25 g
Overvoltage category		II
Pollution degree		2
Protection class		1
Protection type		IP20
Emitted interference		DIN /EN 55011 /22, class A
Weight	kg	0.2
<b>Channels</b>		
Number		4
Temperature measuring range		K Type: -200 – 1370 J Type: -210 – 1200 B Type: 300 – 1820 N Type: -150 – 1300 E Type: -180 – 1000 R Type: -50 – 1760 T Type: -200 – 0
Deviation		Converter: max. 0.5 % of preset final value Cold junction: max. 4 °C
Error indication		Detection of wire break and out of range values

		XIOC-NET-DP-S	XIOC-NET-SK-M
<b>General</b>			
Standards		IEC/EN 61131-2 EN 50178	IEC/EN 61131-2 EN 50178
Ambient temperature	°C	0 to +55	0 to +55
Storage	°C	-20 to +70	-20 to +70
Vibration resistance		10 – 57 Hz ±0.075 mm 57 – 150 Hz ±1.0 mm	10 – 57 Hz ±0.075 mm 57 – 150 Hz ±1.0 mm
Shock resistance		15 g/11 ms	15 g/11 ms
Impact resistance		500 g/∅ 50 mm ±25 g	500 g/∅ 50 mm ±25 g
Overvoltage category		II	II
Pollution degree		2	2
Protection class		1	1
Protection type		IP20	IP20
Emitted interference		DIN /EN 55011 /22, class A	DIN /EN 55011 /22, class A
Weight	kg	0.2	0.2
<b>Interfaces</b>			
Function		Slave	Master
Number of slaves		–	16
Message format		PROFIBUS-DP-0	Suconet K/K1
Transmit/receive data		Max. 244 Byte	120/120 Byte
Interfaces		RS 485	RS 485
Plug arrangement		9-pole Sub-D socket	6-pole spring-loaded terminal block
Potential isolation		Yes, from internal power supply	Yes, from internal power supply
Current consumption	mA	300	275
Baud rate/length		9.6 KBit/s with 1200 m 19.2 KBit/s with 1200 m 93.75 KBit/s with 1200 m 187.5 KBit/s with 1000 m 500 KBit/s with 400 m 1500 KBit/s with 200 m 3000 KBit/s with 100 m 6000 KBit/s with 100 m 12000 KBit/s with 100 m	187.5 or 375 Kbit/s
Bus terminating resistors		Switchable	Switchable
Bus diagnostics		LED	LED
Number of modules		XC100: 2 XC200:3	XC100: 2 XC200: 4
Slots		1, 2, 3	As required

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			24 V DC filter XT-FIL-1
<b>General</b>			
Standards			IEC/EN 61131-2 EN 50178
Ambient temperature		°C	0 – +55
Storage		°C	-25 – +70
Mounting position			Horizontal/vertical
Vibration resistance			10 – 57 Hz ±0.075 mm 57 – 150 Hz ±1.0 g
Shock resistance			15 g/11 ms
Impact resistance			500 g/∅ 50 mm ±25 g
Overvoltage category			II
Pollution degree			2
Protection type			IP20
Rated impulse withstand voltage	$U_{imp}$	V	850
Emitted interference			EN 50081-2, Class A
Interference immunity			EN 50082-2
Weight		kg	0.095
Dimensions (W × H × D)		mm	35 × 90 × 30
Terminations			Screw terminals
Terminal capacities			
Screw terminals			
Flexible with ferrule		mm <sup>2</sup>	0.2 – 2.5 (AWG22 – 12)
Solid		mm <sup>2</sup>	0.2 – 2.5 (AWG22 – 12)
<b>Power supply</b>			
Input voltage		V DC	24
Admissible range		V DC	20.4 – 28.8
Residual ripple		%	≦ 5
Mains overvoltage protection			Yes
Potential isolation			
Input voltage against PE			Yes
Input voltage against output voltage			No
Output voltage against PE			Yes
Rated value		V DC	24
Output current		A	2.2





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Programmable Gateway XN-PLC-CANopen	4/2
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<b>Technical data</b>	4/4
XN-PLC-CANOPEN	4/4
XN-32DO-24VDC-0.5A-P	4/5
XN-4AI-U/I	4/6
<b>Dimensions</b>	4/7

The programmable gateway now delivers performance straight into the fieldbus terminals. The device is ideally suited for decentralization of automation tasks, reducing the load on the supervisory PLC. Programming and online commissioning can be comfortably carried out through the supervisory PLC and the CANopen fieldbus. The Intelligent Gateway can also be used as an autonomous, space-saving unit connected to decentralized remote stations. The serial interface is used for programming, diagnostics and as a freely available interface (transparent mode). The PLC does not require a battery, so it is maintenance-free. The integrated memory is used to save programs and data.

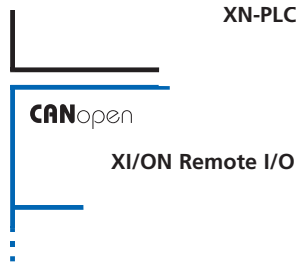


### Configuration examples

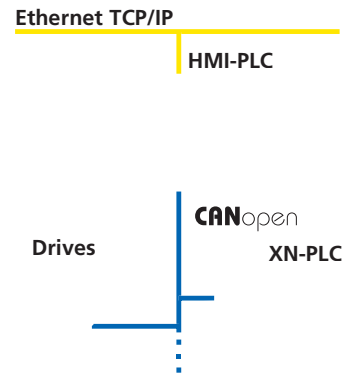
PLC with HMI



PLC with CANopen periphery



Distributed intelligence





			XN-PLC-CANOPEN
<b>Networking</b>			
Field bus			CANopen
Supply voltage		V DC	24
Coordination type "1"	$U_{\text{sys}}$	V DC	18 ... 30
Field voltage	$U_{\text{L}}$		24 V DC
Admissible range		V DC	18 ... 30
Residual ripple		%	According to EN 61131-2
Service interface			PS/2 socket
Connection design for field bus			1 × SUB-D plug, 9-pole, direct wiring
Data transfer rate		kBit/s	20, 50, 125, 250, 500, 800, 1000
Data transfer rate setting			through DIP switch
Addressing			2 hexadecimal rotary switches
Field bus termination			External
Address range			1 ... 99 decimal
<b>Memory</b>			
Program code/data		kByte	128/96
Marker/retentive data		kByte	8/2
Cycle time for 1 k of instructions (Bit, Byte)		ms	0.5
<b>Interfaces</b>			
Serial interface (RS232) without handshake lines			
Data transfer rate		kBit/s	max. 57.6
Connection technique			RJ45
Electrical isolation			No
CANopen			
Maximum data transfer rate		Bits/s	500000
Potential isolation			Yes
Device profile			To DS 301 V4
PDO type			Asyn., cyc., acyc.
Watch-dog			Yes
RTC (real-time clock)			Yes

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			XN-32DO-24VDC-0.5A-P
<b>Digital output modules</b>			
Channels		Number	32
Rated voltage through supply terminal	$U_L$		24 V DC
Rated current consumption from the supply terminal (at load current = 0 mA)	$I_{MB}$	mA	30
Rated current consumption from module bus	$I_{MB}$	mA	50
Power loss		W	Normally 5
<b>Output voltage</b>			
High-Pegel	$U_H/U_A$		min. L+ (-1 V)
<b>Output current</b>			
High level (rated value)	$I_H$		0.5 A
High level (permissible range)	$I_H$	A	1.0
Number of outputs switched in parallel		max.	2
Module total current		A	10
<b>Delay on signal change and resistive load</b>			
from Low to High level		$\mu$ s	300
From High to Low signal		$\mu$ s	300
Load resistance range			48 $\Omega$ ... 1 $\Omega$
Utilization factor	%	g	See module total current
Can be connected			Resistive loads Inductive loads Lamp loads
Resistive load		$\Omega$	$\geq 48$
Inductive load		H	$\leq 1.2$
Lamp load	$R_{LL}$	W	6
<b>Switching frequency</b>			
With resistive load	$f$	Hz	100 ( $R_{LO} < 1 \text{ k}\Omega$ )
with lamp load		Hz	...
<b>Diagnostics</b>			
Short-circuit proof to EN 61131-2			Yes
Reset after short-circuit rectified	$i$	I	Automatic
<b>Base modules</b>			
with C connection			2-wire/3-wire XN-B6x-SBCSBC

Output changeover on signal change as active load/operating frequency, resistive load:  $R_{LO} < 1 \text{ k}\Omega$

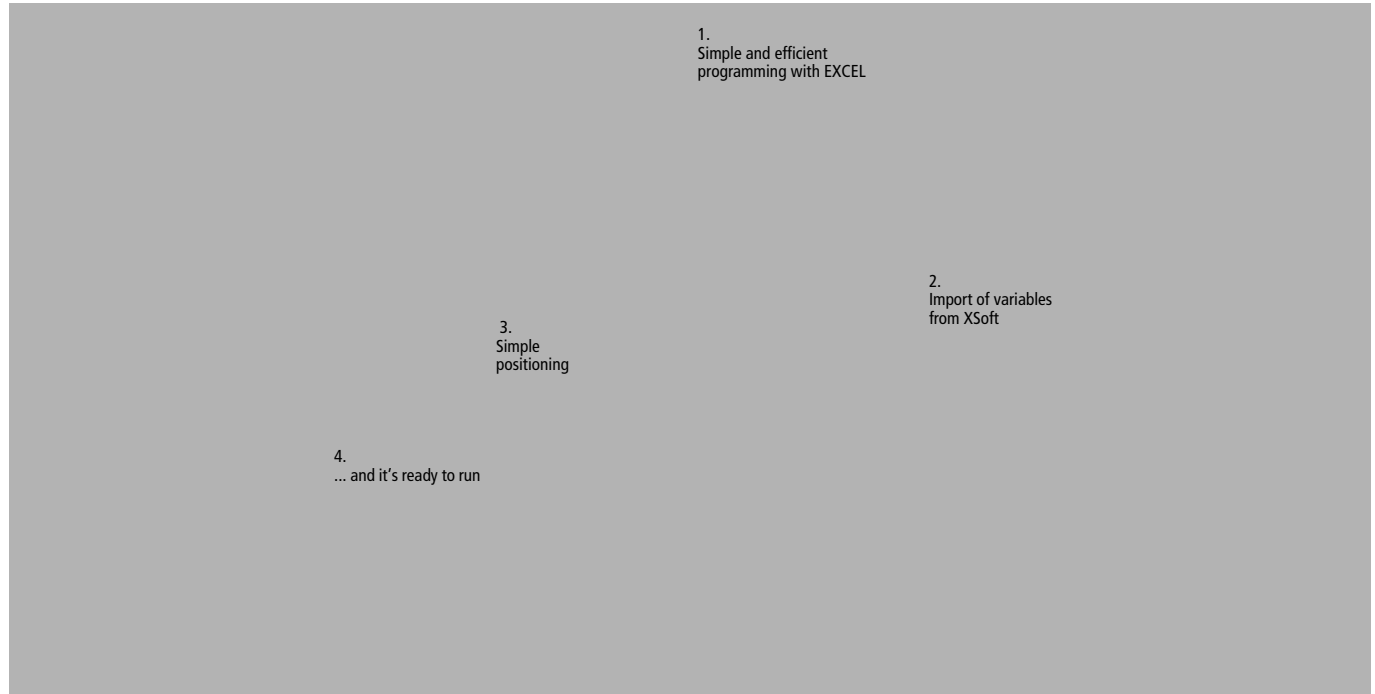
			XN-4AI-U/I
<b>Analog input modules</b>			
Channels		Number	4
Rated voltage through supply terminal	$U_L$		24 V DC
Rated current consumption from supply terminal	$I_L$	mA	20
Rated current consumption from module bus	$I_{MB}$	mA	50
Heat dissipation		W	< 1
Input current		mA	0/4 ... 20
Maximum input current		mA	50
Input voltage			-10/0 bis +10 V DC
Maximum input voltage		V DC	35 V continuous
Input impedance			< 62Ω / > 98.5Ω
Limit frequency (...3 db)		Hz	20
Offset error		%	0.1
Linearity		%	0.05
Basic error limit at 23 °C		%	0.3
Repetition accuracy (deviation)		%	0.05
Temperature coefficient			300 ppm/°C of full scale
Resolution of the A/D converter			16-bit
Measuring principle			Delta Sigma
Measured value representation			16-bit signed integer 12-bit signed integer, flush-left
Diagnostics			Yes
Base modules			
without C connection			2-wire/3-wire XN-S6x-SBCSBC



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XSoft-Professional	

## Project engineering under MS-Excel'

The project engineering for the visualization is preformed under MS-Excel™. It is not necessary to install a specific software package, just link in XSoft-EPAM as an add-in to Microsoft Excel™. And then all the object that are needed for a visualization under Microsoft Excel™ are already available. The textual description of the visualization is stored in the Excel™ table. The project engineer has unlimited access to all Excel™ features while creating the project. Forms or objects that have already been created once can simply be re-used, using Copy & Paste. This brings a considerable reduction in cost-intensive engineering time.



## WEB visualization made easy

With XSoft-EPAM, both new and existing EPAM applications are made WEB-capable with a mouse-click. A Java applet is loaded via the integrated WEB server, and this produces a 1:1 image of the visualization in every Java-capable standard browser, thus enabling remote operation via Ethernet. It also ensures that a 1:1 image is always available for viewing on site. Inputs from the user can be tracked, and corrected if necessary. WEB makes it easy and fast to diagnose whether a machine or operator error has occurred, anywhere in the world.

EPAM-Application

## Keep an eye on everything.. with remote control

XSoft-EPAM provides the facility to insert screen contents from other Touch panels. In this way, all the touch functions present on the screen can be carried out on a local or decentralized basis. These functions bring you advantages both for system visualization and operation as well as for teleservice applications, for the remote diagnosis of the status of machinery and systems, or for implementing operator actions.

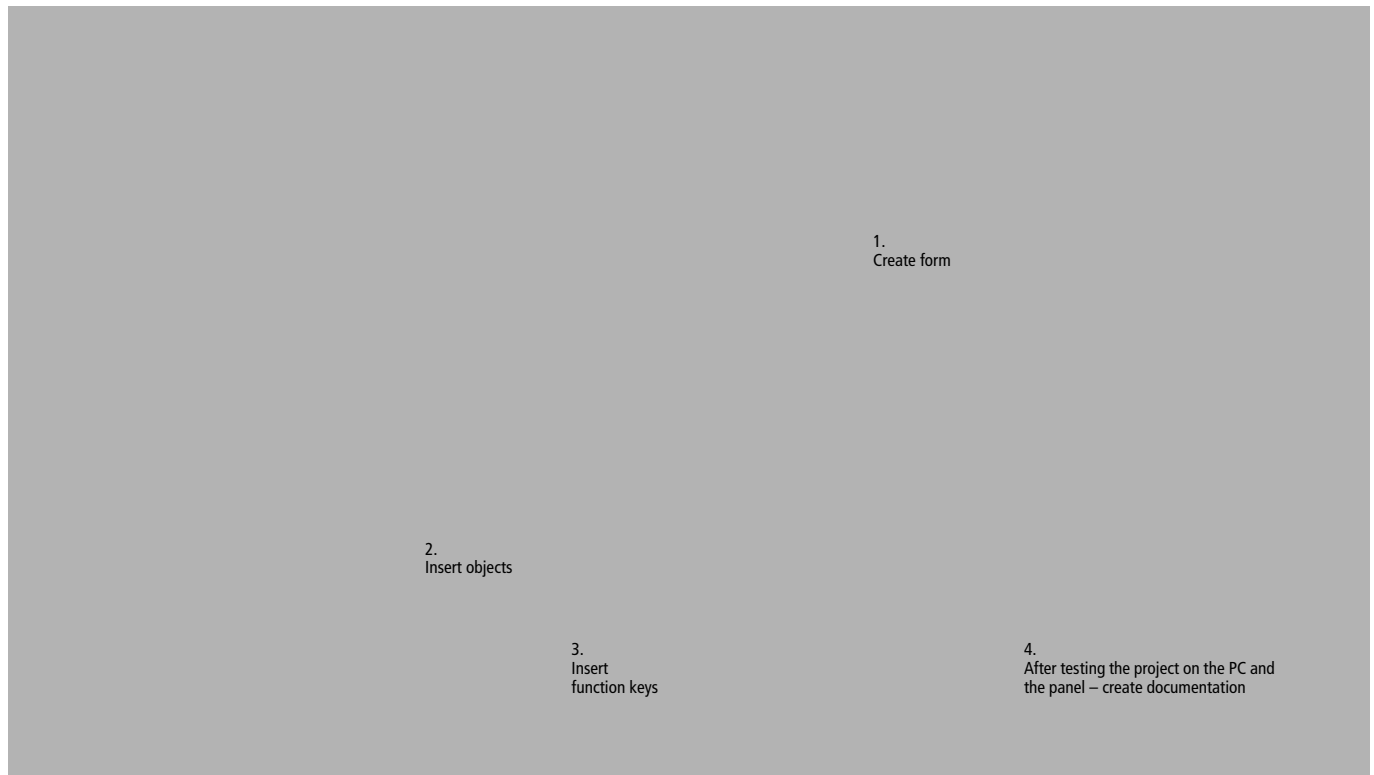
Intranet/  
InternetJava-capable  
standard browser

# XSoft-GALILEO: the MS-Windows™-based visualization tool

Moeller NK2720-1151

## Just a few steps for the finished product

XSoft-GALILEO, the MS-Windows™-based, intelligent and interactive visualization tool, enables you to create projects for operating and visualizing machinery, plant and buildings in the simplest possible way. The up-to-date handling in Windows™ with intuitive menu-guidance reduces the learning phase and cuts down project planning time.



## Features XSoft-GALILEO:

- UNICODE support  
(supporting foreign languages that have their own character sets, such as Chinese)
- Standard WIN PCL printer functions
- WEB-CAM link
- Linear conversion of the variables between PLC and HMI
- Variable types (e.g. Bit, Byte, Word, Double-word, Error, Float, Array, Struct)
- Standard keyboard layouts and user-defined keys
- Password management (200 levels, 500 users)
- Extensive scripting language and parameter list
- Online project simulation on the PC, without HMI
- Context-sensitive help
- Alarm and history functions
- Recipe management
- Imports 15 different graphics formats (.bmp, .tif, .jpg, .gif, .png etc.)

### CoDeSys based IEC 61131-3 software

XSoft is a programming system for industrial control according to the international standard IEC 61131-3. Proven technical features, simple handling and a wide distribution of this software in automation components of different manufacturers guarantees its success.

User-friendly PLC configuration

The optimal programming language for every task  
(IL, ST, FBD, CFC, LD, SFC)

Extensive debugging and  
commissioning tools save  
time and money.

#### Engineering Feature

- Auto Declare: Automatic variable declaration
- Auto Format/Syntax Coloring
- Automatic formatting and colouring of the code/declaration text
- User-friendly project comparison

#### Programming languages

- Instruction List (IL) and Structured Text (ST)
- Function Block Diagram (FBD)
- Free graphical Function Block Diagram/Continuous Function Chart (CFC)
- Ladder diagram (LD)
- Sequential Function Chart (SFC)

#### Debugging and commissioning

XSoft offers you a large number of important functions for debugging, testing and commissioning your PLC applications quickly and efficiently. All these features are available as soon as you have logged onto the PLC (online mode).

#### Simulation

You can also test your application program without being connected to the PLC. XSoft comes with an integrated online simulation tool specially designed for this. You don't have to leave the normal operator interface, and handling is exactly the same as in online mode with the PLC connected.

A number of features enable the application to be created quickly and are designed with one objective in mind: cost savings by reducing project design times. A selection of other features: global search and replace, the generation and use of libraries, context-sensitive help, the output of a cross-reference list, testing of unused variables.

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Description	Type Article no.	Price see price list	Std. pack
<b>XSoft-EPAM</b>			
Software tool for creating visualization modules			
– The visualization tool Easy Page Machine (EPAM) has been specially developed for graphical user guidance with Touch-Displays, and enables simple parameterization of the visualization without comprehensive programming.	XSOFT-EPAM 281648		1 off
<b>XSoft-GALILEO</b>			
Software for creating visualization screen pages			
– XSoft-GALILEO, the MS-Windows™-based, intelligent and interactive visualization tool, enables you to create projects for operating and visualizing machinery, plant and buildings in the simplest possible way.	XSOFT-GALILEO 290170		1 off
<b>XSoft Professional</b>			
Programming and configuration software Programming to IEC 61131-1 with IL, ST, LADF, FBS, AS, CFC Bus configuration: CANopen, PROFIBUS-DP, XI/ON, XI/OC Creation of visualizations for simulation and WEB visualization OPC configurator, extensive online and help functions Documentation as a PDF file	XSOFT-PROFESSIONAL 255930		1 off
Upgrade XSoft <sup>1)</sup> Note upgrade ordering conditions	XSOFT-PROFESSIONAL-U 283396		1 off
<b>XSoft toolbox</b>			
Closed-loop control toolbox The closed-loop control toolbox is a function block comprising approximately 100 function blocks from the following areas: Closed-loop controllers Pulse duration modulation Signal processing Simulations Mathematical functions CD – incl. documentation as a PDF file	XSOFT-APPLIB-REG 262547		1 off
Motion control toolbox The motion-control toolbox is a function block library comprising approximately 30 function blocks from the following areas: Sequencer Simulation of a rotating axis Frequency measurement Synchronisation Other function blocks: Cam controller Hydraulics Referencing Incremental encoder evaluation CD – incl. documentation as a PDF file	XSOFT-APPLIB-MOTIONCONT 262548		1 off
<b>Motion-control toolbox</b>			
Motion control toolbox The motion-control toolbox is a function block library comprising approximately 30 function blocks from the following areas: Sequencer Simulation of a rotating axis Frequency measurement Synchronisation Other function blocks: Cam controller Hydraulics Referencing Incremental encoder evaluation CD – incl. documentation as a PDF file	XSOFT-APPLIB-MOTIONCONT 262548		1 off

## Notes

<sup>1)</sup> Ordering conditions for upgrades:

To use an upgrade a previous version must be installed. When the upgrade is installed, the system searches for a previous version. The upgrade is the same as the standard version.

For information on updates visit the Internet: [www.moeller.net/automation](http://www.moeller.net/automation)