

#### Touch panel, 24 V DC, 10.4z, TFT color, ethernet, RS232, RS485, profibus, (PLC) $\,$



Part no. XV-152-D8-10TVR-10
Article no. 150610

Catalog No. XV-152-D8-10TVR-10

## **Delivery program**

Don'tory program		
Product range		XV150 10.4"
Product range		XV-152
Function		HMI-PLC (PLC retrofitted by user)
Common features of the model series		Ethernet interface USB device USB Host Slot for SD card UL508, cUL approvals
Display - Type		Color display, TFT
Touch-technology		Resistive-Touch
Number of colours		64 k Colours
Resolution	Pixel	VGA 640 x 480
Portrait format		yes
Screen diagonal	Inch	10.4
Model		Metal enclosure and front plate
Operating system		Windows CE 5.0 (licence incl.)
PLC-licence		Can be fitted by user with article no. 142581 LIC-PLC-MXP-COMPACT
License certificates for onboard interfaces		Not required
built-in interfaces		1 x Ethernet 10/100 Mbps 1 x RS232 1 x RS485 1 x PR0FIBUS/MPI 1 x USB host 2.0 1 x USB device
Front type		Standard front with standard membrane (fully enclosed)
Utilization		Flush mounting
Slots		for SD card: 1
Memory card automation		Optionally with SD card -> article no. 139807
Pluggable communication cards (optional)		no
Touch sensor		Glass with film
Heat dissipation	W	14.5

# **Technical data Display**

Display		
Display - Type		Color display, TFT
Screen diagonal	Inch	10.4
Resolution	Pixel	VGA 640 x 480
Visible screen area	mm	211 x 158
Number of colours		64 k Colours
Contrast ratio (Normally)		Normally 300:1
Brightness	cd/m <sup>2</sup>	Normally 250
Back-lighting		LED dimmable via software
Service life of back-lighting	h	Normally 40000
Resistive touch protective screen		Touch sensor (glass with foil)
Operation		

#### Tochnology

Technology	Resistive-Touch 4 wire
Touch sensor	Glass with film
Sustam	

#### System

Processor	RISC CPU, 32 Bit, 400 MHz
Internal memory	DRAM (OS, Program and data memory): 64 MByte NAND-Flash (can be used for data backup): approx. 64 MByte available

Statemany   Stat				NVRAM (Retain data): 125 kByte NOR-Flash: 2 MByte
	External moment			·
Benefician clock   Benefician				
Bestury (Learning Fell   1988   1988   1988   1989   198	•			raniess CFO and system cooling, natural convection-based passive cooling
Deckup (true at zero voltage)	·			CP 2022 (100 mA/h) yere maintenance (coldered)
Part   Common				
Page				
Visualisation software         GALLED Frequency (Contents S2 2 NOT CONTENTS 2 NOT CONTENTS 2 NOT CONTENTS 2 NOT CONTENTS 3 N				Windows CE 5.0 (licence incl.)
No.				GALILEO
Interfaces, communication  buils interfaces  buils interfaces  PLO dicenter  USB device  USB 2, and galvanically included  ISB 2, and galvanically included operating valuage - 20% (-20%)  ISB 2, and galvanically included operating valuage - 20% (-20%)  ISB 2, and galvanically included operating valuage - 20% (-20%)  ISB 2, and galvanically included  ISB 2, and				XSOFT-CODESYS-2
Substitution interfaces	PLC-Programming software			
PLC-Scence				
USB device  Slots  Slots  Chemnot boundings  Power supply  Nominal voltage  permissible voltage  Power august  Notes of gibts  Voltage digs  Power consumption  Power	built-in interfaces			1 x RS232 1 x RS485 1 x PR0FIBUS/MPI 1 x USB host 2.0
Sites   For SD card: 1   100Base-TX/10Base-T   100Base-TX/10Base	PLC-licence			Can be fitted by user with article no. 142581 LIC-PLC-MXP-COMPACT
Emerate   100	USB device			USB 2.0, not galvanically isolated
Nominal voltage	Slots			for SD card: 1
Nominal voltage permissible voltage  Effective: 19.2-90.0 V DC (rated operating voltage -20%/-22%)  Effective: 19.2-90.0 V DC (rated operating voltage -20%/-22%)  Absolute with ripple: 18.0-31.7 V DC (rated operating voltage -20%/-22%)  Absolute with ripple: 18.0-31.7 V DC (rated operating voltage -25%/-30%)  SV DC for an obsolute voltage (24 V DC)  Fower consumption  Power consumption  Power consumption  Power consumption  Power consumption  Note on power consumption  Note on power consumption  Power				100Base-TX/10Base-T
permissible voltage    Commissible voltage				
Absolute with right: 18,0-31 y D Circated operating voltage -25%/-30%)   Sit VD Circated operating voltage -25%/-30%   Sit VD Circated voltage -				
Power consumption Power consumption Power consumption Power consumption Read dissipation Power consumption Read dissipation	permissible voltage			Absolute with ripple: 18,0-31,2 V DC Battery powered: 18,0-31,2 V DC (rated operating voltage -25%/+30%)
Note on power consumption    Silvania   Silvania   Silvania   USB Host: 2.5   Total: 9.5     Heat dissipation   W   14.5     Note on heat dissipation   I   A   Continuous current = 0.6 (24 V DC)     Silvanens MPI, (optional)   yes   Type of fuse   Yes (fuse not accessible)     Potential isolation   Optional   Optional	Voltage dips		ms	
USB Stave to USB Host: 25 Total: 9.5     Heat dissipation	Power consumption	P <sub>max</sub> .	W	12
Note on heat dissipation  Current consumption  I A Continuous current = 0.6 (24 V DC)  Siemens MPI, (optional)  Yes  Yes (fuse not accessible)  no potential isolation  General  Housing material  Front type  Dimensions (W x H x D)  Material  Metal, anodized  Clearance: W x H x D ≥ 30 mm (1.18°)  Inclination from vertical: ±45° (if using natural convection)  Weight  Degree of protection (IEC/EN 60529, EN50178, VBG 4)  Approvals  Explosion protection (according to ATEX 94/9/EC)  Applied standards and directives  EMC  Product standards  Heat dissipation with power consumption for 24 V 12 W for USB module  Continuous current = 0.6 (24 V DC)  yes  Yes (fuse not accessible)  no potential isolation  no potential isolation  Netal, anodized  Netal, anodized  Netal, anodized  Netal, anodized  Metal, anodized  Netal, anodized  Netal, anodized  Netal, anodized  Metal, anodized  Netal, anodi	Note on power consumption			USB Slave to USB Host: 2.5
12 W for basic device + 2.5 W for USB module	Heat dissipation		W	14.5
Siemens MPI, (optional)       yes         Type of fuse       Yes (fuse not accessible)         Potential isolation       no potential isolation         General         Housing material       Metal, anodized         Front type       Standard front with standard membrane (fully enclosed)         Dimensions (W x H x D)       mm       345 x 250 x 54         flush mounted       kg       3         Weight       kg       3         Degree of protection (IEC/EN 60529, EN50178, VBG 4)       lP65 (at front), IP20 (at rear) Enclosure Type 4X (Indoor use only)         Approvals       CUL (UL508)         Explosion protection (according to ATEX 94/9/EC)       II 3D Ex II T70°C IP5x: Zone 22, Category 3D         Applied standards and directives       (in relation to CE) EN 61000-6-2 EN 61000-6-2 EN 61000-6-4 EN 6131-2       EN 61000-6-2 EN 61000-6-4 EN 6131-2         Product standards       EN 50178 EN 50178 EN 50178 EN 61031-2	Note on heat dissipation			
Type of fuse Yes (fuse not accessible)   Potential isolation no potential isolation   General Wetal, anodized   Front type Standard front with standard membrane (fully enclosed)   Dimensions (W x H x D) mm 345 x 260 x 54   flush mounted Clearance: W x H x D ≥ 30 mm (1.18") Inclination from vertical: ±45° (if using natural convection)   Weight kg 3   Degree of protection (IEC/EN 80529, EN50178, VBG 4) P65 (at front), IP20 (at rear) Enclosure Type 4X (Indoor use only)   Approvals CUL (UL508)   Explosion protection (according to ATEX 94/9/EC) II 3D Ex II T70°C IP5x: Zone 22, Category 3D   Applied standards and directives (in relation to CE) EN 61000-6-2 EN 61000-6-4 EN 61131-2   Product standards EN 50178 EN 61131-2	Current consumption	I	Α	Continuous current = 0.6 (24 V DC)
Potential isolation  General  Housing material  Housing material  Front type  Dimensions (W x H x D)  flush mounted  Weight  Degree of protection (IEC/EN 60529, EN50178, VBG 4)  Approvals  Explosion protection (according to ATEX 94/9/EC)  Applied standards and directives  EMC  Product standards  Potential isolation  Metal, anodized  Standard front with standard membrane (fully enclosed)  Metal, anodized  Standard front with standard membrane (fully enclosed)  Standard front with standard membrane (fully enclosed)  Metal, anodized  Standard front with standard membrane (fully enclosed)  Elearnce: W x H x D ≥ 30 mm (1.18°)  Inclination from vertical: ±45° (if using natural convection)  Inclination from vertical: ±45° (if using natural convection)  Learnce: W x H x D ≥ 30 mm (1.18°)  Inclination from vertical: ±45° (if using natural convection)  Learnce: W x H x D ≥ 30 mm (1.18°)  Inclination from vertical: ±45° (if using natural convection)  Learnce: W x H x D ≥ 30 mm (1.18°)  Inclination from vertical: ±45° (if using natural convection)  Learnce: W x H x D ≥ 30 mm (1.18°)  Inclination from vertical: ±45° (if using natural convection)  Learnce: W x H x D ≥ 30 mm (1.18°)  Inclination from vertical: ±45° (if using natural convection)  Learnce: W x H x D ≥ 30 mm (1.18°)  Inclination from vertical: ±45° (if using natural convection)  Learnce: W x H x D ≥ 30 mm (1.18°)  Inclination from vertical: ±45° (if using natural convection)  Learnce: W x H x D ≥ 30 mm (1.18°)  Inclination from vertical: ±45° (if using natural convection)  Learnce: W x H x D ≥ 30 mm (1.18°)  Inclination from vertical: ±45° (if using natural convection)  Learnce: W x H x D ≥ 30 mm (1.18°)  Inclination from vertical: ±45° (if using natural convection)  Learnce: W x H x D ≥ 30 mm (1.18°)  Learnce: W x H x D ≥ 30 mm (1.18°)  Learnce: W x H x D ≥ 30 mm (1.18°)  Learnce: W x H x D ≥ 30 mm (1.18°)  Learnce: W x H x D ≥ 30 mm (1.18°)  Learnce: W x H x D ≥ 30 mm (1.18°)  Learnce: W x H x D ≥ 30 mm (1.18°)  Learnce: W x H x D ≥ 30 mm (1.18°)  Learnce: W	Siemens MPI, (optional)			yes
General         Housing material       Metal, anodized         Front type       Standard front with standard membrane (fully enclosed)         Dimensions (W x H x D)       mm       345 x 260 x 54         flush mounted       Clearance: W x H x D ≥ 30 mm (1.18") Inclination from vertical: ±45° (if using natural convection)         Weight       kg       3         Degree of protection (IEC/EN 60529, EN50178, VBG 4)       IP65 (at front), IP20 (at rear) Enclosure Type 4X (Indoor use only)         Approvals       CUL (UL508)         Explosion protection (according to ATEX 94/9/EC)       II 3D Ex II T70°C IP5x: Zone 22, Category 3D         Applied standards and directives       (in relation to CE) EN 61000-6-2 EN 61000-6-2 EN 61000-6-4 EN 61131-2         Product standards       EN 50178 EN 61131-2	Type of fuse			Yes (fuse not accessible)
Housing material Front type Standard front with standard membrane (fully enclosed) Dimensions (W x H x D) mm 345 x 260 x 54  Clearance: W x H x D ≥ 30 mm (1.18") Inclination from vertical: ±45° (if using natural convection) Meight Meight Megree of protection (IEC/EN 60529, EN50178, VBG 4)  Approvals Approvals Explosion protection (according to ATEX 94/9/EC)  Applied standards and directives  EMC Product standards Product standards Product standards  Metal, anodized Standard front with standard membrane (fully enclosed)  At 260 x 54  Clearance: W x H x D ≥ 30 mm (1.18") Inclination from vertical: ±45° (if using natural convection) Inclination from vertical: ±45° (if using natural convection) Inclination from vertical: ±45° (if using natural convection)  Legarance: W x H x D ≥ 30 mm (1.18") Inclination from vertical: ±45° (if using natural convection) Inclin	Potential isolation			no potential isolation
Front type  Dimensions (W x H x D)  mm 345 x 260 x 54  Clearance: W x H x D ≥ 30 mm (1.18") Inclination from vertical: ±45° (if using natural convection)  Weight  Degree of protection (IEC/EN 60529, EN50178, VBG 4)  Approvals  Approvals  Explosion protection (according to ATEX 94/9/EC)  Applied standards and directives  EMC  Product standards  Standard front with standard membrane (fully enclosed)  mm 345 x 260 x 54  Clearance: W x H x D ≥ 30 mm (1.18") Inclination from vertical: ±45° (if using natural convection)  kg 3  IP65 (at front), IP20 (at rear) Enclosure Type 4X (Indoor use only)  CUL (UL508)  II 3D Ex II T70°C IP5x: Zone 22, Category 3D  II 3D Ex II T70°C IP5x: Zone 22, Category 3D  EN 61000-6-2 EN 61000-6-2 EN 61000-6-2 EN 61000-6-4 EN 61131-2  Product standards				
Dimensions (W x H x D)  flush mounted  flush mounted  kg 3  Degree of protection (IEC/EN 60529, EN50178, VBG 4)  Approvals  Explosion protection (according to ATEX 94/9/EC)  Applied standards and directives  EMC  Froduct standards  mm  345 x 260 x 54  Clearance: W x H x D ≥ 30 mm (1.18°) Inclination from vertical: ±45° (if using natural convection)  kg 3  IP65 (at front), IP20 (at rear) Enclosure Type 4X (Indoor use only)  CUL (UL508)  II 3D Ex II T70°C IP5x: Zone 22, Category 3D  (in relation to CE) EN 61000-6-2 EN 61000-6-2 EN 61131-2  Product standards  EN 50178 EN 50178 EN 50178 EN 51131-2	Housing material			Metal, anodized
flush mounted  Clearance: W x H x D ≥ 30 mm (1.18") Inclination from vertical: ±45° (if using natural convection)  Weight  kg 3  Degree of protection (IEC/EN 60529, EN50178, VBG 4)  Approvals  Approvals  Explosion protection (according to ATEX 94/9/EC)  Applied standards and directives  EMC  (in relation to CE) EN 61000-6-2 EN 61000-6-2 EN 61000-6-4 EN 61131-2  Product standards  EN 50178 EN 610131-2				
Weight kg 3  Degree of protection (IEC/EN 60529, EN50178, VBG 4)  Approvals  Explosion protection (according to ATEX 94/9/EC)  Applied standards and directives  EMC  Product standards  Inclination from vertical: ±45° (if using natural convection)  kg 3  IP65 (at front), IP20 (at rear) Enclosure Type 4X (Indoor use only)  CUL (UL508)  II 3D Ex II 770°C IP5x: Zone 22, Category 3D  (in relation to CE) EN 61000-6-2 EN 61000-6-2 EN 61000-6-4 EN 61131-2  Product standards  EN 50178 EN 61131-2			mm	
Degree of protection (IEC/EN 60529, EN50178, VBG 4)  Approvals  Approvals  Explosion protection (according to ATEX 94/9/EC)  Applied standards and directives  EMC  (in relation to CE) EN 61000-6-2 EN 61000-6-4 EN 61131-2  Product standards  EN 50178 EN 61131-2	flush mounted			
Enclosure Type 4X (Indoor use only)  Approvals  Approvals  Explosion protection (according to ATEX 94/9/EC)  Applied standards and directives  EMC  (in relation to CE) EN 61000-6-2 EN 61000-6-2 EN 61100-6-4 EN 61131-2  Product standards  EN 50178 EN 61131-2	•		kg	
Approvals  Explosion protection (according to ATEX 94/9/EC)  II 3D Ex II T70°C IP5x: Zone 22, Category 3D  Applied standards and directives  EMC  (in relation to CE) EN 61000-6-2 EN 61000-6-4 EN 61131-2  Product standards  EN 50178 EN 61131-2	Degree of protection (IEC/EN 60529, EN50178, VBG 4)			
Explosion protection (according to ATEX 94/9/EC)  Applied standards and directives  EMC  (in relation to CE) EN 61000-6-2 EN 61000-6-4 EN 61131-2  Product standards  EN 50178 EN 61131-2				
Applied standards and directives  EMC  (in relation to CE) EN 61000-6-2 EN 61000-6-4 EN 61131-2  Product standards  EN 50178 EN 61131-2				CUL (UL508)
EMC  (in relation to CE) EN 61000-6-2 EN 61000-6-4 EN 61131-2  Product standards  EN 50178 EN 61131-2	Explosion protection (according to ATEX 94/9/EC)			II 3D Ex II T70°C IP5x: Zone 22, Category 3D
EN 61000-6-2 EN 61000-6-4 EN 61131-2  Product standards  EN 50178 EN 61131-2	Applied standards and directives			
EN 61131-2	EMC			EN 61000-6-2 EN 61000-6-4
Security EN 60950				EN 61131-2
UL 60950	Security			

Standards			Explosion protection (relevant for CE) ATEX 94/9/EG: Zone 22, Category 3D (II 3D Ex to IIIC T70°C IP6x): IEC/EN 60079-0 IEC/EN 61241-0 IEC/EN 61241-1 Security: IEC/EN 60950 UL 508 Product standards: EN 50178 IEC/EN 61131-2 EMC / relevant for CE): IEC/EN 61000-6-2 IEC/EN 61000-6-4 IEC/EN 61000-6-3
Mechanical shock resistance		g	according to IEC 60068-2-27
Vibration			according to IEC/EN 60068-2-6
RoHS			conform
Environmental conditions			
Temperature			
Operation	9	°C	0 - +50
Storage / Transport	9	°C	-20 - +60
Operating ambient temperature min.		°C	0
Operating ambient temperature max.		°C	+ 50
Relative humidity			
Relative humidity			IEC/EN 50178 10 - 95%, non-condensing
Supply voltage U <sub>Aux</sub>			
Rated operational voltage	$U_{Aux}$	V	24 V DC (-20/+25%)
Residual ripple on the input voltage		%	$\leq_5$
Protection against polarity reversal			Yes
Max. current	$I_{\text{max}}$	Α	3
Short-circuit rating			no, external fuse FAZ Z3
Potential isolation			No
Supply voltage U <sub>Pow</sub>			
Supply voltage	$U_{\text{Pow}}$	V	24 DC -20 % + 25 %
Input voltage ripple		%	≦ <sub>5</sub>
Siemens MPI, (optional)			yes
Rated current	1	Α	0.7
Overload proof			yes
Inrush current and duration		Α	12.5 A/6 ms
Heat dissipation at 24 V DC		W	3.8
Potential isolation between $\rm U_{\mbox{\footnotesize Pow}}$ and 15 V SmartWire-DT supply voltage			No
Bridging voltage dips		ms	10
Repetition rate		s	1
Status indication		LED	yes
SmartWire-DT supply voltage			
Rated operating voltage	U <sub>e</sub>	V	14,5 ± 3 %
max. current	I <sub>max</sub>	Α	0.7
Short-circuit rating			Yes
Connection supply voltages			
Connection type			Push in terminals
Solid		$mm^2$	0.2 - 1.5
Flexible with ferrule		mm <sup>2</sup>	0.25 - 1.5
UL/CSA solid or stranded		AWG	24 - 16
SmartWire-DT network		,	2
Station type			SmartWire-DT master
Number of SmartWire-DT slaves			58
Baud Rates		kBd	125 250
Address allocation			automatic

Status indication	LED	SmartWire-DT master LED: ret/green Configurations LED: red/green
Connections		Plug, 8-pole
Plug connectors		Blade terminal SWD4-8MF2

## Design verification as per IEC/EN 61439

2001gii 1011110441011 40 poi 120/211 01 100			
Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	0
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	0
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	14.5
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	0
Operating ambient temperature max.		°C	50
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Please enquire
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			Meets the product standard's requirements.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.
10.10 Temperature rise			The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating			Is the panel builder's responsibility.
10.12 Electromagnetic compatibility			Is the panel builder's responsibility.
10.13 Mechanical function			The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

### **Technical data ETIM 6.0**

PLC's (EG000024) / Graphic panel (EC001412)				
Electric engineering, automation, process control engineering / Control / Operate and Observe (HMI) / Graphic panel (HMI) (ecl@ss8.1-27-24-23-02 [BAA722010])				
	V	0 - 0		
	V	0 - 0		
	V	20.4 - 28.8		
		DC		
		1		
		0		
		1		
		0		
		1		
		0		
		2		
	and Observe (HI	V V		

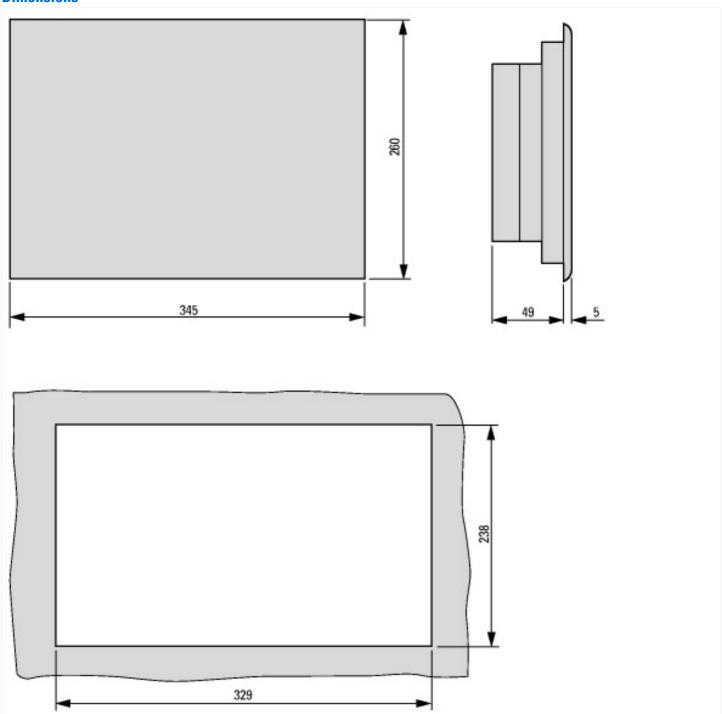
Number of NV Nimetries (Nimetries	Number of HW-interfaces parallel		0
Number of HW interfaces other			
West   Supporting printed for TCP/IP			
Supparring protected for PIOPIBUS         Yes           Supparring protected for PIOPIBUS         Yes           Supparring protected for PIOPIBUS         No           Supparring protected for INTERSUS         No           Supparring protected for INTERSUS         No           Supparring protected for EUK         No           Supparring protected for EUK         No           Supparring protected for Euk Highway         No           Suppar			
Supporting protocol for CNA         Ne           Supporting protocol for ENA         Ne           Supporting protocol for End-silegowy         Ne           Supporting protocol for End-silegowy <td></td> <td></td> <td></td>			
Signopring processed for CANI         No           Signopring processed for NTKTRUS         No           Signopring processed for NDK         No           Signopring processed for NDK         No           Signopring processed for NDK         No           Signopring processed for DANI         No           Signopring processed for DANI         No           Signopring processed for Executable         No           Signopring processed for EXECUTION         No<			
Supporting protector in NEMBUS         No           Supporting protector in XSA         No           Supporting protector in Successive         No           Supporting protector in Successive         No           Supporting protector in Successive         No           Supporting protector in SUCONET         No           Supporting protector in MOTINICE CEA         No           Supporting protector in MOTINI	11 11 11		
Supporting protected for ASI         No.           Supporting protected for MODIUS         "No.           Supporting protect for Dath Highway         No.           Supporting protect for ASINIAN         No.     <			
Supporting protocol for MODBUS         Yea           Supporting protocol for MODBUS         Yea           Supporting protocol for MODBUS         No.           Supporting protocol for Description         Yea           Supporting protocol for Description         Yea           Supporting protocol for SUDONET         No.           Supporting protocol for SUDONET ID         No.           Supporting protocol for SUDONET Individual         No.           Supporting protocol for Evolution individual         No.           Supporting protocol for Evolution individual         No.           Supporting protocol for AE-Interface Safety at Wen's         No.           Supporting protocol for MC-Interface Safety at Wen's         No.           Supporting protocol for SUPORISET         No.           Supporting protocol for SUPORISET         No.           Supporting protocol for Supporting protocol for Supporting protocol for Supporting Supporting protocol for Supporting Supporting protocol for Supporting Supp			
Supporting protocol for MODIUS         Yea           Supporting protocol for Dial-Hidrway         No           Supporting protocol for SUSONET         No           Supporting protocol for SPRICHET EQA         No           Supporting protocol for Chief bits system         No           Supporting protocol for SPRICHET EQA         No           Supporting protocol for Chief bits system         No			
Supporting protocot for Data- Highway         No           Supporting protocot for DeviceMeT         No           Supporting protocot for SUDNET         No           Supporting protocot for FUDNET CIDA         No           Supporting protocot for STRODS         No           Supporting protocot for Enter Natiff         No           Supporting protocot for Enter Natiff         No           Supporting protocot for Enter Natiff         No           Supporting protocot for FUDRILES         No           Supporting protocot for STREADUS Safety         No           Supporting protocot for FUDRILES         No           Supporting protocot for Orbita bus systems         No	11 11		
Supporting protocal for DeviceNets Supporting protocal for SUCONET  Supporting protocal for SUCONET  Supporting protocal for PROPINET IO  Supporting protocal for PROPINET GRA  Supporting protocal for Foundation Fieldbas  Supporting protocal for Foundation Fieldbas  Supporting protocal for Foundation Fieldbas  Supporting protocal for ElevireNetIP  Vea  Supporting protocal for DeviceNet Safety  Supporting protocal for DeviceNet Safety  No  Supporting protocal for DeviceNet Safety  No  Supporting protocal for DeviceNet Safety  No  Supporting protocal for SafetyBUSp  No  Supporting protocal for SafetyBUSp  No  Supporting protocal for SafetyBUSp  No  Realise standard SafetyBush  No  Realise standard SafetyBush  No  Realise standard SafetyBush  No  Realise standard SafetyBush  No  Realise standard UNIS  No  No  Realise standard UNIS  No  No  No  No  No  No  No  No  No  N			
Supporting protect for LDN         No           Supporting protect for PROFINET CBA         No           Supporting protect for PROFINET CBA         No           Supporting protect for Formation Fieldhus         No           Supporting protect for Formation Fieldhus         No           Supporting protect for EME-NeVIP         No           Supporting protect for Formation Fieldhus         No           Supporting protect for Supporting Formation Fieldhus         No           Supporting protect for Supporting F			
Supporting partacut for LON         No           Supporting partacut for PROPINET ID         No           Supporting partacut for PROPINET CBA         No           Supporting partacut for FORDINET CBA         No           Supporting partacut for Formatian Feldus         No           Supporting partacut for Foundation Feldus         No           Supporting partacut for Foundation Feldus         No           Supporting partacut for Politicate         No           Supporting partacut for PROFIsate         No           Ratio sandard WLAN 80211         No           Ratio sandard WLAN 80211         No           Ratio sandard WLAN 80211	11 11		
Supporting protocol for PROFINET IO         No           Supporting protocol for PROFINET ICEA         No           Supporting protocol for PROFINET ICEA         No           Supporting protocol for SERCISS         No           Supporting protocol for EmerkeVEIP         Yes           Supporting protocol for EmerkeVEIP         No           Racid samedrad EmerkeVEIP         No           Racid samedrad EmerkeVEIP         No           Racid samedrad UMTS         No           United is classed and MUTS         No           Subsect samedrad EmerkeVEIP         No			
Supporting protocol for PROFINET CIDA         Ne           Supporting protocol for SERICIOS         Ne           Supporting protocol for EtherNation         Yes           Supporting protocol for EtherNation         Ne           Supporting protocol for EtherNation         Ne           Supporting protocol for In MITERIUS-Safety         Ne           Radio standard Bibustoch         Ne           Radio standard Bibustoch         Ne         Ne           Radio standard UMTAS         Ne         Ne           Radio standard UMTAS         Ne         Ne           Radio standard UMTAS         Ne         Ne           With closurd sigslay         Yes         SEXEMAN           With closure of the display         Yes           With closure of pixels protocolla         Ne         Ne			
Supporting protect for SERCOS         No           Supporting protect for Foundation Fieldbus         No           Supporting protect for Foundation Fieldbus         Yes           Supporting protect for Foundation Fieldbus         No           Supporting protect for Foundation Fieldbus         No           Supporting protect for Foundation Fieldbus         No           Supporting protect for FOFDstafe         No           Supporting protect for FOFDstafe         No           Supporting protect for FOFDstafe         No           Supporting protect for other bus systems         Yes           Radio standard WLAN 802.11         No           Radio standard GFRS         No           Radio standard GFRS         No           Radio standard UMTS         No           10 link master         No           Yes         No           Number of colours of the display         Yes           With colour display         Yes           Number of price-scales/bhe-scales of display         0           Number of price-scales/bhe-scales of display         60           Number of price-scales/bhe-scales of display         Yes           With number is keyboard         Yes           With a plan numeric keyboard         Yes           <			
Supporting protocol for EdmanNat/P         Yes           Supporting protocol for EdmanNat/P         No           Supporting protocol for EdmanNat/P         No           Supporting protocol for EdmanNat/P         No           Supporting protocol for INTERBUS Safety         No           Supporting protocol for PROFIbarie         No           Supporting protocol for SafetyBUS p         No           Supporting protocol for SafetyBUS p         No           Supporting protocol for SafetyBUS p         No           Supporting protocol for other bus systems         No           Radio standard Bluetooth         No           Radio standard SMA         No           No         No           Type of display         TFT           With colour singlay         Response of standard SMA           Number of polours of the display         Response standard SMA           Number of polosis, froizental         Response standard SMA           Number of poles, broizental         Response standard SMA           Number of poles, fro	., .,		
Supporting protocol for EtherNet/IP  Supporting protocol for PAS-Interface Safety at Work  Supporting protocol for PAS-Interface Safety at Work  Supporting protocol for PROFISafe  Supporting protocol for PROFISafe  Supporting protocol for PROFISafe  Supporting protocol for Safety-BUS p  Supporting protocol for Safety-BUS p  Supporting protocol for Safety-BUS p  No  Supporting protocol for Safety-BUS p  No  Supporting protocol for Safety-BUS p  No  Radio standard Subueboth  No  Radio standard Subueboth  No  Radio standard SSM  Radio standard			
Supporting protocol for PAS-Interface Safety at Work         No           Supporting protocol for PAS-Interface Safety         No           Supporting protocol for PAS-BUS-Safey         No           Supporting protocol for PAS-BUS-Safey         No           Supporting protocol for FABUS-Safey         No           Supporting protocol for Gafety-BUS p         No           Backin Safe Safe Safe Safe Safe Safe Safe Safe			
Supporting protocol for DeviceNet Safety         No           Supporting protocol for INTERBUS-Safety         No           Supporting protocol for SAEN/BUS Safety         No           Supporting protocol for SateryBUS Safety         No           Supporting protocol for starb bus systems         Yes           Radio standard Bluetooth         No           Radio standard BUAN 802.11         No           Radio standard GPSS         No           Radio standard UMTS         No           10 link mestor         No           No         No           No         No           No         No           Radio standard UMTS         No           10 link mestor         No           No         No           N			
Supporting protocol for INTERBUS-Safety         No           Supporting protocol for PROFIDEISIA         No           Supporting protocol for SafetyBUS p         No           Radio standard Bluetooth         No           Radio standard WLAN 802.11         No           Radio standard WRAN 802.15         No           Radio standard WRAN 802.16         No           Radio standard WRAN 802.17         No           Radio standard UMTS         No           I U link master         No           Type of display         TFT           With colour display         TFT           With colour display         0           Number of proy-scales/blue-scales of display         0           Number of proy-scales/blue-scales of display         0           Number of pixels, horizontal         60           Number of pixels, horizontal         7           Number of pixels, horizontal         60			
Supporting protocol for PROFlaste         No           Supporting protocol for SafetyBUS p         No           Supporting protocol for SafetyBUS p         Yes           Radio standard but bus systems         No           Radio standard Bustooth         No           Radio standard SMD         No           Radio standard GSM         No           Radio standard GSM         No           Radio standard GSM         No           I link master         No           Type of display         FTF           With colour display         Res           Number of colours of the display         Res           Number of pixels, burizontal         Bd0           Number of pixels, burizon			
Supporting protocol for SafetyBUS p         No           Supporting protocol for other bus systems         Yes           Radio standard Blustooth         No           Radio standard WLAN 802.11         No           Radio standard GPRS         No           Radio standard GPRS         No           Radio standard UMTS         No           10 link master         No           Type of display         TFT           With colour display         6536           Number of prey-scles/blue-scales of display         0           Screen diagonal         inch         10.4           Number of pixels, briticantal         480         480           Useful project memory/user memory         kByte         54000           With alpha numeric keyboard         Yes         480           With alpha numeric keyboard         Yes         480           Number of buttons with LED         0         0           Number of buttons with LED         0         0           Number of system buttons         1         Yes           With message system finct. buttons creen         Yes         480           With message system finct. buffer and confirmation)         Yes         480           With message system finct. buffer a			
Supporting protocol for other bus systems         Yes           Radio standard Bluetooth         No           Radio standard WLAN 802.11         No           Radio standard GSM         No           Radio standard GSM         No           Radio standard UMTS         No           10 link mester         No           Type of display         Yes           With colour display         Yes           Number of grey-scales/blue-scales of display         65538           Number of prey-scales/blue-scales of display         Inch         10.4           Number of prey-scales/blue-scales of display         480         400           Screen diagonal         Inch         10.4         400           Number of pixels, horizontal         480         4000           With unmaric keyboard         Yes         480           With number of buttons yengrammable         Yes         490           Number of pixels horizontal         Yes         490           Number of pixels horizontal         Yes         490           With numeric keyboard         Yes         490           With project memory/user memory         Yes         490           Number of pixels, horizontal         Yes         490			
Radio standard Bluetooth         No           Radio standard WLAN 802.11         No           Radio standard OPRS         No           Radio standard GSM         No           Radio standard UMTS         No           10 link master         No           17 yea of display         Yea           With colour display         6538           Number of colours of the display         6538           Number of prey-scales of display         640           Number of pixels, horizontal         840           With numeric keyboard         748           With alpha numeric keyboard         748           With slopha numeric keyboard         748           Number of function buttons, programmable         0           Number of system buttons         748           With massage indication         748           With massage indication         748           With massage indication         748           With message indication         748           With necessage indication         748           With necessage indication         748 </td <td></td> <td></td> <td></td>			
Radio standard WAN 802.11         No           Radio standard GPRS         No           Radio standard GMR         No           Radio standard UNTS         No           10 link master         No           Type of display         'TF           With colour display         Yes           Number of colours of the display         55536           Number of grey-scales/blue-scales of display         0           Screen diagonal         inch         10.4           Number of pixels, horizontal         840         440           Number of pixels, breitical         880         4400           Useful project memory/user memory         887         4400           With numeric keyboard         Yes         480           With alpha numeric keyboard         Yes         480           Number of function buttons, programmable         0         0           Number of system buttons         1         480           With neckneen         Yes         480           With message system (incl. butfer and confirmation)         Yes         480           With message system (incl. butfer and confirmation)         Yes         480           With necknees         Yes         480         480			
Radio standard GPRS         No           Radio standard GSM         No           Radio standard UMTS         No           10 link master         No           Type of display         TFT           With colour display         65536           Number of grey-scales/blue-scales of display         50           Screen diagonal         inch         104           Number of pixels, horizontal         80         400           Number of pixels, horizontal         80         400           Number of pixels, vertical         80         400           Useful project memory/user memory         8By         4000           With alpha numeric keyboard         72         72           Number of function buttons, programmable         9         9           Number of system buttons         1         1           Number of system buttons         1         1           With nessage system (incl. buttons, programmable         72         72           With message system (incl. butfer and confirmation)         72         72           With message system (incl. butfer and confirmation)         72         72           With recipes         72         72           With recipes         72         72			
Radio standard GSM         No           Radio standard UMTS         No           10 link master         No           Type of display         TFT           With colours of the display         65536           Number of colours of the display         65536           Number of grey-scales/blue-scales of display         0           Screen diagonal         inch         10.4           Number of pixels, horizontal         480           Number of pixels, vertical         480           Useful project memory/user memory         489           With alpha numeric keyboard         Yes           With alpha numeric keyboard         Yes           Number of function buttons, programmable         0           Number of system buttons with LED         0           Number of system buttons         1           With nessage indication         Yes           With message system (incl. buffer and confirmation)         Yes           Process value representation (output) possible         Yes           With recipes         Yes           With recipes         Yes           Number of password levels         Yes           With recipes         Yes           Number of password levels         Yes			
Radio standard UMTS         No           10 link mastar         No           Type of display         TFT           With colour display         Yes           Number of colours of the display         65536           Number of grey-scales/blue-scales of display         10.4           Screen diagonal         inch         10.4           Number of pixels, horizontal         80         400           Number of pixels, vertical         480         480           Useful project memory/user memory         489         6400           With alpha numeric keyboard         Yes         Yes           Number of function buttons, programmable         0         0           Number of function buttons, programmable         0         0           Number of system buttons         1         Yes           With nessage indication         Yes         Yes           With message system (incl. buffer and confirmation)         Yes         Yes           Process default value (input) possible         Yes         Yes           With recipes         Yes         Yes           Number of password levels         Yes         Yes           With recipes         Yes         Yes           Number of password levels			
10 link master         No           Type of display         TFT           With colour display         Yes           Number of colours of the display         55536           Number of grey-scales/blue-scales of display         0           Screen diagonal         inch         10.4           Number of pixels, breizontal         640           Number of pixels, vertical         480           Useful project memory/user memory         kByte         6400           With alpha numeric keyboard         Yes           With alpha numeric keyboard         Yes           Number of function buttons, programmable         0           Number of system buttons         1           With nessage indication         Yes           With message indication         Yes           With message system (incl. buffer and confirmation)         Yes           Process adeal urbalue (input) possible         Yes           Process default value (input) possible         Yes           With recipes         Yes           Number of password levels         Yes           With recipes         Yes           Number of password levels         Yes           With recipes         Yes           Number of password levels         Y			
Type of display         TFT           With colour display         Yes           Number of colours of the display         65536           Number of grey-scales/blue-scales of display         0           Screen diagonal         inch         10.4           Number of pixels, horizontal         480           Number of pixels, vertical         kByte         6400           With numeric keyboard         Yes           With alpha numeric keyboard         Yes           With alpha numeric keyboard         Yes           Number of function buttons, programmable         0           Number of system buttons         1           With numeric system buttons         1           With message indication         Yes           With message system (incl. buffer and confirmation)         Yes           Process default value (input) possible         Yes           Process default value (input) possible         Yes           With recipes         Yes           Number of password levels         Yes           Number of online languages         100			
With colour display         Yes           Number of colours of the display         65536           Number of grey-scales/blue-scales of display         0           Screen diagonal         inch         10.4           Number of pixels, horizontal         480           Number of pixels, vertical         480           Useful project memory/user memory         KByte         64000           With almeric keyboard         Yes           With alpha numeric keyboard         Yes           Number of function buttons, programmable         0           Number of system buttons         1           With touch screen         Yes           With touch screen         Yes           With message indication         Yes           With message system (incl. buffer and confirmation)         Yes           Process value representation (output) possible         Yes           Process default value (input) possible         Yes           With recipes         Yes           Number of password levels         200           Printer output available         Yes           Number of online languages         100			
Number of colours of the display         65536           Number of grey-scales/blue-scales of display         10.4           Screen diagonal         inch         10.4           Number of pixels, horizontal         480           Useful project memory/user memory         kByte         6400           With numeric keyboard         Yes           With alpha numeric keyboard         Yes           Number of function buttons, programmable         0           Number of system buttons         1           With touch screen         Yes           With message indication         Yes           With message system (incl. buffer and confirmation)         Yes           Process value representation (output) possible         Yes           Process default value (input) possible         Yes           With recipes         Yes           Number of password levels         Yes           Number of online languages         100			
Number of grey-scales/blue-scales of display         0           Screen diagonal         inch         10.4           Number of pixels, horizontal         640           Number of pixels, vertical         480           Useful project memory/user memory         kByte         64000           With numeric keyboard         Yes           With alpha numeric keyboard         Yes           Number of function buttons, programmable         0           Number of system buttons         1           With touch screen         Yes           With message indication         Yes           With message system (incl. buffer and confirmation)         Yes           Process value representation (output) possible         Yes           Process default value (input) possible         Yes           With recipes         Yes           Number of password levels         200           Printer output available         Yes           Number of online languages         100			
Screen diagonal inch Number of pixels, horizontal Number of pixels, vertical Useful project memory/user memory With numeric keyboard With alpha numeric keyboard With alpha numeric keyboard Number of function buttons, programmable Number of system buttons With tach screen With message indication With message system (incl. buffer and confirmation) Process value representation (output) possible Process default value (input) possible With recipes Number of password levels Number of password levels Number of online languages Number of online languages			
Number of pixels, horizontal         640           Number of pixels, vertical         480           Useful project memory/user memory         kByte         64000           With numeric keyboard         Yes           With alpha numeric keyboard         Yes           Number of function buttons, programmable         0           Number of buttons with LED         0           Number of system buttons         1           With touch screen         Yes           With message indication         Yes           With message system (incl. buffer and confirmation)         Yes           Process value representation (output) possible         Yes           Process default value (input) possible         Yes           With recipes         Yes           Number of password levels         Yes           Number of password levels         Yes           Number of online languages         100			
Number of pixels, vertical  Useful project memory/user memory  With numeric keyboard  With alpha numeric keyboard  With alpha numeric keyboard  Number of function buttons, programmable  Number of system buttons  Number of system buttons  With touch screen  With message indication  With message system (incl. buffer and confirmation)  Process value representation (output) possible  With recipes  With recipes  Number of password levels  Number of password levels  Number of online languages  Number of online languages  #80  #80  #80  #80  #80  #80  #80  #8		inch	10.4
Useful project memory/user memory     kByte     64000       With numeric keyboard     Yes       With alpha numeric keyboard     Yes       Number of function buttons, programmable     0       Number of buttons with LED     0       Number of system buttons     1       With touch screen     Yes       With message indication     Yes       With message system (incl. buffer and confirmation)     Yes       Process value representation (output) possible     Yes       With recipes     Yes       With recipes     Yes       Number of password levels     200       Printer output available     Yes       Number of online languages     100			
With numeric keyboard With alpha numeric keyboard With alpha numeric keyboard Number of function buttons, programmable 0 Number of buttons with LED 0 Number of system buttons 1 With touch screen With message indication With message system (incl. buffer and confirmation) Yes With message system (incl. buffer and confirmation) Yes Process value representation (output) possible Yes With recipes With recipes With recipes Number of password levels Printer output available Number of online languages Number of online languages			
With alpha numeric keyboard  Number of function buttons, programmable  0  Number of buttons with LED  0  Number of system buttons  1  With touch screen  With message indication  With message system (incl. buffer and confirmation)  Yes  With message system (incl. buffer and confirmation)  Yes  Process value representation (output) possible  Yes  With recipes  With recipes  Number of password levels  Printer output available  Number of online languages  Yes  Number of online languages  Yes  Number of possible  Yes  Number of online languages		kByt	
Number of function buttons, programmable  Number of buttons with LED  Number of system buttons  I  With touch screen  With message indication  With message system (incl. buffer and confirmation)  Yes  With message system (incl. buffer and confirmation)  Yes  Process value representation (output) possible  Yes  With recipes  With recipes  With recipes  Number of password levels  Printer output available  Number of online languages  I 0  O  O  Number of buttons, programmable  O  O  Number of puttons with LED  O  O  Ves  Yes  Ves  Ves  Number of online languages  I 00  O  O  O  O  O  O  O  O  O  O  O  O			
Number of buttons with LED  Number of system buttons  1  With touch screen  With message indication  With message system (incl. buffer and confirmation)  Process value representation (output) possible  Process default value (input) possible  Yes  With recipes  Number of password levels  Number of online languages  Number of online languages  0  Yes  Yes  Yes  Ves  Ves  Ves  Ves  Number of online languages  100			Yes
Number of system buttons  With touch screen  Yes  With message indication  With message system (incl. buffer and confirmation)  Process value representation (output) possible  Process default value (input) possible  With recipes  With recipes  Number of password levels  Number of online languages  Number of online languages  1  Yes  Yes  Yes  Yes  Yes  Number of online languages  1  1  1  1  1  1  1  1  1  1  1  1  1			
With touch screen  With message indication  With message system (incl. buffer and confirmation)  Process value representation (output) possible  Process default value (input) possible  With recipes  With recipes  Number of password levels  Number of online languages  Yes  Yes  Number of online languages			0
With message indication With message system (incl. buffer and confirmation) Yes Process value representation (output) possible Process default value (input) possible With recipes With recipes Number of password levels Number of online languages  Yes			
With message system (incl. buffer and confirmation)  Process value representation (output) possible  Process default value (input) possible  Yes  With recipes  Number of password levels  Number of online languages  Yes  Number of online languages  Yes  Number of online languages  Yes  Number of online languages			
Process value representation (output) possible Process default value (input) possible Ves With recipes With recipes Number of password levels Number of online languages Yes Number of online languages Yes			
Process default value (input) possible  With recipes  Number of password levels  Printer output available  Number of online languages  Yes  100			
With recipes  Number of password levels  Printer output available  Number of online languages  Yes  100			
Number of password levels 200 Printer output available Yes Number of online languages 100			
Printer output available Yes Number of online languages 100			
Number of online languages 100			
Additional software components, loadable  Yes			
	Auditional software components, loadable		tes

Degree of protection (IP), front side		IP65
Operation temperature	°C	0 - 50
Rail mounting possible		No
Wall mounting/direct mounting		No
Suitable for safety functions		No
Width of the front	mm	345
Height of the front	mm	260
Built-in depth	mm	49

## Approvals

Product Standards	UL508, cULus; IEC/EN 61131-2, CE
UL File No.	E205091
UL Category Control No.	NRAQ
CSA File No.	UL report applies to US and Canada
CSA Class No.	-
North America Certification	UL listed, certified by UL for use in Canada
Current Limiting Circuit-Breaker	No
Degree of Protection	IEC:IP20, UL/CSA Tape: open type

### **Dimensions**



## **Additional product information (links)**

IL04802006Z Enclosed Kit Information		
IL04802006Z Enclosed Kit Information	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL04802006Z2013_03.pdf	
IL04802005Z Beipack-Informationen	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL04802005Z2013_10.pdf	
MN04802006Z Operator manual XV-152		
MN04802006Z Betriebsanleitung XV-152 - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802006Z_DE.pdf	
MN04802006Z Operator manual XV-152 - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802006Z_EN.pdf	
MN04802013Z quick-start instructions XV100		
MN04802013Z Schnellstartanleitung XV100 - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802013Z_DE.pdf	
MN04802013Z quick-start instructions XV100 - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802013Z_EN.pdf	
MN04802091Z User manual XSoft-CoDeSys-2, PLC programming XV100		
MN04802091Z Benutzerhandbuch XSoft- CoDeSys-2, SPS-Programmierung XV100 - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802091Z-DE.pdf	

MN04802091Z User manual XSoft-CoDeSys-2, PLC programming XV100 - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN04802091Z-EN.pdf	
MN048008ZU Manual XSOFT-CODESYS-3, PLC programming		
MN048008ZU Handbuch XSOFT-CODESYS-3, SPS-Programmierung - Deutsch	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN048008ZU_DE.pdf	
MN048008ZU Manual XSOFT-CODESYS-3, PLC programming - English	ftp://ftp.moeller.net/DOCUMENTATION/AWB_MANUALS/MN048008ZU_EN.pdf	