## **DATASHEET - XV-460-57TQB-1-10**



Touch panel, ir, 24 V DC, 5.7z, TFTcolor, ethernet, RS232, CAN, (PLC)



Part no. Catalog No. XV-460-57TQB-1-10

139897

EL-Nummer (Norway)

4560814

## **Delivery program**

penvery hrodiam		
Product range		XV400 5.7"
Product range		XV400
Function		HMI-PLC (SPS function, retrofittable)
Common features of the model series		Ethernet interface USB device RS232 CAN/easyNet UL508, cUL approvals PLC function can be fitted by user Communications scope can be fitted by user with licenses
Display - Type		Color display, TFT
Touch-technology		Infra-red touch
Number of colours		Adjustable: 65536 or 256 colours
Resolution	Pixel	QVGA 320 x 240
Portrait format		yes
Screen diagonal	Inch	5.7
Model		Metal enclosure and front plate
Operating system		Windows CE (license required) CompactFlash card required
PLC-licence		Can be fitted by user with article no. 140389 LIC-PLC-MXP-SMALL
License certificates for onboard interfaces		Can be expanded as required, see Accessories -> License product certificates
built-in interfaces		1 x Ethernet 100base-TX/10base-T 1 x RS232 1 x CAN 1 x USB host 1 x USB device
Front type		Standard front with standard membrane Laminated safety glass, non-reflective
Utilization		Flush mounting
Slots		for Compact-Flash <sup>TM-</sup> Cards: 1 for communication modules: 1
Memory card automation		required, see Accessories -> Memory cards
Pluggable communication cards (optional)		yes
Heat dissipation	W	24

# **Technical data**

### Display

Display - Type		Color display, TFT	
Screen diagonal	Inc	5.7	
Resolution	Pix	QVGA 320 x 240	
Visible screen area	mr	115 x 86	
Number of colours		Adjustable: 65536 or 256 colours	
Contrast ratio (Normally)		Normally 400:1	
Brightness	cd	Normally 350	
Back-lighting		LED dimmable via software	
Service life of back-lighting	h	Normally 40000	
Infra-red touch protective screen		Laminated safety glass, non-reflective	
Operation			

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Technology	Infra-red touch	
	47 x 31 logic channels	

System			
Processor			RISC CPU, 32 Bit, 400 MHz
Internal memory			DRAM (OS, Program and data memory): 64 MByte Flash (can be used for data backup): approx. 1.5 MByte available NVRAM (retained data): approx. 32 KByte available
External memory			CF-Slot: 1 x CompactFlash Card type I/II for operating system, programs and da
Back-up of real-time clock			
Battery (service life)			non-replaceable, CR2032 soldered in
Backup (time at zero voltage)			Normally 10 years
Engineering			
Visualisation software			GALILEO EPAM XSOFT-CODESYS-2 XSOFT-CODESYS-3
PLC-Programming software			XSOFT-CODESYS-2 XSOFT-CODESYS-3
PLC-licence			Can be fitted by user with article no. 140389 LIC-PLC-MXP-SMALL
Operating system			Windows CE (license required) CompactFlash card required
Interfaces, communication			
built-in interfaces			1 x Ethernet 100base-TX/10base-T 1 x RS232 1 x CAN 1 x USB host 1 x USB device
USB Host			USB 2.0 (1.5 - 12 Mbit/s), not galvanically isolated
USB device			USB 1.1, not galvanically isolated
RS-232			RS-232, not galvanically isolated (SUB-D plug 9 pole, UNC)
CAN			CAN, galvanically isolated (SUB-D plug 9 pole, UNC)
Slots			for Compact-Flash <sup>TM-</sup> Cards: 1 for communication modules: 1
Ethernet Power supply			100Base-TX/10Base-T
Nominal voltage			24 V DC SELV (safety extra low voltage)
permissible voltage			Effective: 20.4-28.8 V DC (rated operating voltage -15%/+20%) Absolute with ripple: 19.2-30.0 V DC 35 V DC for a duration of < 100 ms
Voltage dips		ms	≤ 20 ms from rated voltage (24 V DC) 2 ms from undervoltage (20.4 V DC)
Power consumption	P <sub>max</sub> .	W	24
Power consumption		W	Normally 13
Heat dissipation		W	24
Note on heat dissipation			Heat dissipation with power consumption for 24 V 17 W for basic device + 4 W for communication module + 3 W for USB module
Protection against polarity reversal			yes
Type of fuse			Yes (fuse not accessible)
Potential isolation			no potential isolation (0 V-connection to housing potential)
General			
Housing material			Metal, anodized
Front type			Standard front with standard membrane Laminated safety glass, non-reflective
Weight		kg	1.9
Degree of protection (IEC/EN 60529, EN50178, VBG 4)			IP65 (at front), IP20 (at rear)
Approvals			
Approvals			cUL (UL508)
Explosion protection (according to ATEX 94/9/EC)			II 3D Ex II T70°C IP5x: Zone 22, Category 3D (in relation to CE) EN60079-0, EN61241-1, EN13463
Applied standards and directives			
EMC			(in relation to CE) EN 61000-6-2 EN 61000-6-3 EN 61000-6-4 EN 61131-2
Product standards			EN 50178 EN 61131-2

Security			EN 60950 UL 60950
Mechanical shock resistance		g	according to IEC 60068-2-27
Vibration			To IEC 68-2-6
Environmental conditions			
Climatic environmental conditions			
Air pressure (operation)		hPa	795 - 1080
Temperature			
Storage / Transport	9	°C	-20 - +60
Operating ambient temperature min.		°C	0
Operating ambient temperature max.		°C	+ 50
Relative humidity			
Relative humidity			10 - 95%, non-condensing
Supply voltage U <sub>Aux</sub>			
Rated operational voltage	$U_{\text{Aux}}$	V	24 V DC (-15/+20%)
Protection against polarity reversal			Yes
Potential isolation			No

## **Design verification as per IEC/EN 61439**

Design vermication as per illo/liv 01400			
Technical data for design verification			
Static heat dissipation, non-current-dependent	$P_{vs}$	W	24
Operating ambient temperature min.		°C	0
Operating ambient temperature max.		°C	50
EC/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])		
Supply voltage AC 50 Hz	V	0 - 0
Supply voltage AC 60 Hz	V	0 - 0
Supply voltage DC	V	20.4 - 28.8

Comparing processor Society	Voltage type of supply voltage		DC
Number of WW winstrakes PROPRIET  Number of WW wanterles RS-277  Number of WW wanterless sheer  WW wanterless sheer  WR Supporting proces for PEDFOP  Supporting proces for PE			
Number of INV-interface IS-232         I <td< td=""><td></td><td></td><td></td></td<>			
Number of PMP-Interfaces 85-829         0           Number of IMP-Interfaces 85-849         0           Number of IMP-Interfaces 85-849         1           Number of IMP-Interfaces 856         1           Number of IMP-Interfaces 856         0           Number of IMP-Interfaces 856         0           Number of IMP-Interfaces 856         1           Number of IMP-Interfaces 856         4           Supparting processor For IMP-Interfaces 856         4           Supparting processor Interfaces 856         4           Supp			
Number of INV-reserbes RF-805         0           Number of INV-reserbes social INT         0           Number of INV-reserbes possible         0           Number of INV-reserbes possible         0           Number of INV-reserbes possible         1           Number of INV-reserbes possible         1           Number of INV-reserbes Person         1           Supporting protect for TOTPI         7           Supporting protect for TOTPIS         7           Supporting protect for FORDRUS         7           Supporting protect for FORDRUS         7           Supporting protect for TOTPIS         7           Supporting protect for FORDRUS         7           Supporting protect for FORDRUS         7           Supporting protect for FORDRUS         7           Supporting protect for EVA         7			
Number of INVMerber (see sortal TTY  Number of INVMerber (see SUSB  Number of INVMerber (see SUSB  Number of INVMerber (see SUSB)  Number of INVMERBURS  Number of INVMERBURS  Number of InVMerber (see SUSB)  Number of InVMe			
Number of MV-interfaces USB         1           Number of MV-interfaces paralel         2           Number of MV-interfaces Winders         1           Number of MV-interfaces Winders         1           Number of MV-interfaces Winders         1           Will SV Winderfaces         74           Supporting protector for TCPIP         74           Supporting protector for FORDIBUS         74           Supporting protector for MCRESUS         74           Supporting protector for Development         74           Supporting protector for Development         74           Supporting protector for MCRESUS         74           Supporting protector for Development         74			
Number of HYM-stretaces yearsels         0           Number of HYM-stretaces Yearsels         0           Will Will infractes Yearsels         1           Will SW HYM Infractes with Yearsels         1           Will SW HYM Infractes with Yearsels         1           Supporting protect for TCPP         4           Supporting protect for FRIPRIUS         4           Supporting protect for LYM         4           Supporting protec			
Number of HW-interfaces Oliver         1           Number of HW-interfaces Oliver         1           Winds SW interfaces         9         Yes           Supporting protocol for TCT/IPT         9         Yes           Supporting protocol for FORDRUS         9         Yes           Supporting protocol for FORDRUS         9         Ne           Supporting protocol for MCREBUS         9         Ne           Supporting protocol for SUBJOINET         9         Ne           Supporting protocol for RSINDET IO         9         Ne           Supporting protocol for Substantial IS         Ne         Ne           Supporting proto			
Number of HW-interfaces other         1           Visit SSV interfaces         1           Supporting protect for TZFIPP         2           Supporting protect for CAPA         7           Supporting protect for CAPA         8           Supporting protect for CAPA         8           Supporting protect for CAPA         8           Supporting protect for CAPA         1           Supporting protect for Data-Highlaw         1           Supporting protect for Data-Highlaw         1           Supporting protect for Data-Highlaw         1           Supporting protect for DAPA STREAM         1           Supporting protect for PROPINET ID         2           Supporting protect for PROPINET ID         2           Supporting protect for FROMATION         1           Supporting protect for FROMATION         2           Supporting protect for FROMATION         2           Supporting protect for FROMATION         2           Supporting protect for FROMATION         2<			
With StW interfaces         Yes           Supporting protect for PROFIBUS         Yes           Supporting protect for PROFIBUS         Yes           Supporting protect for INTERBUS         No           Supporting protect for SET         Yes           Supporting protect for KIX         Yes           Supporting protect for KIX         Yes           Supporting protect for KIX         Yes           Supporting protect for Device Helphary         Yes           Supporting protect for Device Helphary         Yes           Supporting protect for CDN         Yes           Supporting protect for SERCOS         Yes           Supporting protect for FORDHECI CDA         Yes           Supporting protect for FormHeatiff         Yes           Supporting protect for FORDHECI CDA         Yes           Supp			
Supporting protect for TPCPIP         Yes           Supporting protect for CRAN         Yes           Supporting protect for CRAN         No           Supporting protect for ASI         No           Supporting protect for KAS         Yes           Supporting protect for KASI         Yes           Supporting protect for MOBBUS         Yes           Supporting protect for Data Highway         No           Supporting protect for Data Highway         No           Supporting protect for CDN         Yes           Supporting protect for CDN         No           Supporting protect for CDN-Faller Sufface         No           Supporting protect for SHEQUES         No           Supporting protect for SHEQUES         No </td <td></td> <td></td> <td></td>			
Supporting protocol for PROFIBUS         Yes           Supporting protocol for KAN         No           Supporting protocol for KNTEMBUS         Yes           Supporting protocol for KNTEMBUS         Yes           Supporting protocol for KNDOWS         Yes           Supporting protocol for Desa-Highway         No           Supporting protocol for Desa-Highway         Yes           Supporting protocol for SUCONET         Yes           Supporting protocol for SUCONET         No           Supporting protocol for FDFA-Highway         No           Supporting protocol for SUCONET         No           Supporting protocol for Extended FOR         No           Supporting protocol for FDFA-Highway         No           Supporting protocol for FDFA-HIGH FOR         No           Supporting protocol for FDFA-HIGHWAY         No           Supporting p			
Supporting protect for ENTERBUS           Na           Supporting protect for INTERBUS           Na           Supporting protect for MACH           Na           Supporting protect for Devicable           Na           Supporting protect for Devicable           Na           Supporting protect for INTERBUS           Na           Supporting protect for PROFINET IO           Na           Supporting protect for PROFINET BOA           Na           Supporting protect for Foundation Fieldbus           Na           Supporting protect for Su			
Supporting protected for MXI         No           Supporting protected for ASI         No           Supporting protected for MXI         Yes           Supporting protected for Data Highway         No           Supporting protected for Data Highway         Yes           Supporting protected for Data Highway         Yes           Supporting protected for SUCINET         Yes           Supporting protected for SUCINET         No           Supporting protected for FDGFINET DA         No           Supporting protected for PDGFINET DA         No           Supporting protected for PDGFINET DA         No           Supporting protected for FDGFINET DA         No           Supporting protected for EdwfextPl         No           Supporting protected for FDGFINET DA         No           Supp			
Supporting protocol for ASI         No           Supporting protocol for KMX         Yes           Supporting protocol for DEVACHONGUS         Yes           Supporting protocol for DeVACHONGUS         No           Supporting protocol for DeVACHONGUS         Yes           Supporting protocol for DEVACHONGUS         No           Supporting protocol for DEVACHONGUS         No           Supporting protocol for PROFINET IO         No           Supporting protocol for PROFINET GA         No           Supporting protocol for SERGINS         No           Supporting protocol for FRONGUS         No           Supporting protocol for FRONGUS         No           Supporting protocol for Forestall         No           Supporting protocol for FORFINET GA         No           Supporting protocol for FORFINET GA         No           Supporting protocol for Forestall         No           Supporting protocol for FORFINET GA         No           Supporting protocol for FORF			
Supporting protocal for NAOURUS         1 % 196           Supporting protocal for NAOURUS         1 % 196           Supporting protocal for NAOURUS         1 % 196           Supporting protocal for DeviceNet         1 % 196           Supporting protocal for SUCONET         1 % 196           Supporting protocal for FRORNET IO         1 % 196           Supporting protocal for PRORNET IO         1 % 196           Supporting protocal for PRORNET EDA         1 % 196           Supporting protocal for FRORNET EDA         1 % 196           Redia			
Supporting protocol for M00BUS         Yes           Supporting protocol for Data-Highway         Yes           Supporting protocol for Data-Highway         Yes           Supporting protocol for Data-Highway         Yes           Supporting protocol for SUDNET         Yes           Supporting protocol for LDN         Yes           Supporting protocol for PROFINET IO         No           Supporting protocol for PROFINET BCA         Yes           Supporting protocol for SERCOS         No           Supporting protocol for FROFINET BCA         No           Supporting protocol for SERCOS         No           Supporting protocol for DeviceAvet Seatey         No           Supporting protocol for DeviceAvet Seatey         Yes           Supporting protocol for SERCOS         No           Supporting protocol for SERCOS         Yes           Supporting protocol for SERCOS         Yes           Supporting protocol for SERCOS         <			
Supporting protocol for DeviceMeX         Yes           Supporting protocol for DeviceMeX         Yes           Supporting protocol for DEVONET         No           Supporting protocol for DEVONET         No           Supporting protocol for PROFINET DGA         No           Supporting protocol for PROFINET DGA         No           Supporting protocol for PROFINET DGA         No           Supporting protocol for Ended DGA         No           Supporting protocol for Ended DGA         No           Supporting protocol for Ended DGA         No           Supporting protocol for AS-Interface Safety at Work         No           Supporting protocol for MERSUS-Safety         No           Supporting protocol for SafetyBUSP         No           Supporting protocol for SafetyBUSP         No           Supporting protocol for SafetyBUSP         No           Radio standard WLAN BEZ11         No           Radio standard WLAN BEZ11         No           Radio standard WLAN BEZ11         No           Radio standard WLAN BEZ1         No           Number of grow-cales/blue-seles of deplay         Yes           Number of grow-cales/blue-seles of deplay         Edition SafetyBUS           Number of grow-cales/blue-seles of deplay         Septemble project monory luster memory			
Supporting protocol for DeliceNet         Yes           Supporting protocol for SUDONET         Yes           Supporting protocol for PRDFINET IO         No           Supporting protocol for PRDFINET CBA         No           Supporting protocol for PRDFINET CBA         No           Supporting protocol for FRDFINET CBA         No           Supporting protocol for FORDINGT CBA         No           Supporting protocol for Foundation fieldbus         No           Supporting protocol for Other bus systems         No           Supporting protocol for SafetyBUS Pa         No           Radio standard WLAN 802.11         No           Radio standard SMA         No           Radio standard SMA         No           Radio standard SMA         Yes           Number of greys-clespfule-scales of display         Yes			
Supporting protocol for SUCONET         Yes           Supporting protocol for FORDINET IO         No           Supporting protocol for PRDFINET IOS         No           Supporting protocol for PRDFINET IOS         No           Supporting protocol for PRDFINET IOS         No           Supporting protocol for FRDFINET IOS         No           Supporting protocol for FEMORISE         No           Supporting protocol for DeviceNet Safety         No           Supporting protocol for FEMORISE         No           Relia standards Bluttooth         No           Relia standards Bluttooth         No           Relia standard WLA NO211         No           Relia standard SMPS         No      <			
Supporting protocol for PROFINET ICS         No           Supporting protocol for PROFINET CBA         No           Supporting protocol for PROFINET CBA         No           Supporting protocol for PROFINET CBA         No           Supporting protocol for FROFINET CBA         No           Supporting protocol for CB-Interface Safety at Work         No           Supporting protocol for DeviceNet Safety         No           Supporting protocol for PROFISER         No           Supporting protocol for FROFISER         No           Redic standard Blestocth         No           Redic standard SPA         No           Redic standard SPA         No           Redic standard SPA         No           No         No           <			
Supporting protocol for PROFINETIO         No           Supporting protocol for PROFINET DBA         No           Supporting protocol for SERCOS         No           Supporting protocol for FENDENCE         Yes           Supporting protocol for Fendender Fieldbus         Yes           Supporting protocol for Fenerhediple         No           Supporting protocol for Enterhediple         No           Supporting protocol for DeviceANE Safety         No           Supporting protocol for PROFIsas         No           Redic standard Bluetothe         No           Redic standard Bluetothe bus systems         No           Redic standard Supporting protocol for other bus systems         No           Redic standard Supporting protocol for Supporting protocol for Profitation         No           Redic standard Supporting protocol for			
Supporting protocol for PROFINET CBA         No           Supporting protocol for SERCOS         No           Supporting protocol for Foundation Fieldbus         Yo           Supporting protocol for Foundation Fieldbus         No           Supporting protocol for Foundation Fieldbus         Yo           Supporting protocol for AS-Irvariace Safety at Work         No           Supporting protocol for AS-Irvariace Safety         Yo           Supporting protocol for INTERBUS-Safety         Yo           Supporting protocol for PROFIsate         Yo           Supporting protocol for SafetyBUS P         Yo           Redio standard MLAN 802.11         Yo           Redio standard SMA         Yo <td< td=""><td></td><td></td><td></td></td<>			
Supporting protocol for SERCOS         No           Supporting protocol for Endedules         No           Supporting protocol for Endedule Supporting protocol for Endedule Supporting protocol for Endedule Supporting protocol for Sel-Interface Safety at Work         No           Supporting protocol for DeviceNet Safety         No           Supporting protocol for DeviceNet Safety         No           Supporting protocol for INTERBUS-Safety         No           Supporting protocol for SafetyBUS p         No           Supporting protocol for SafetyBUS p         No           Supporting protocol for SafetyBUS p         No           Radio standard Bluetooth         No           Radio standard Bluetooth         No           Radio standard BNS         No           Radio standard WAN 802.11         No           Radio standard GNRS         No           Number of protocol to display         No           With colour display         Ses           Number of protocol to display         Ses           Number of pixels, vortical         No           Number of pixels, vortical			
Supporting protocol for Foundation Fieldbus Supporting protocol for EtherNevIP Supporting protocol for EtherNevIP Supporting protocol for LeviceNet Safety et Work Supporting protocol for PaviceNet Safety et Work Supporting protocol for PaviceNet Safety Supporting protocol for PaviceNet Safety Supporting protocol for PROFISSafey Supporting protocol for PROFISSafey Supporting protocol for Safety8US p Supporting protocol for Safety8US p Supporting protocol for Safety8US p Supporting protocol for Cher bus systems Radio standard Bluetooth Radio standard Bluetooth Radio standard WLAN 802.11 Radio standard WLAN 802			
Supporting protocol for EtherNevIP         Wes           Supporting protocol for AS-Interface Safety at Work         Mo           Supporting protocol for DeviceNet Safety         Mo           Supporting protocol for INTERBUS-Safety         Mo           Supporting protocol for PROFIsafe         Mo           Supporting protocol for SafetyBUS P         Mo           Supporting protocol for other bus systems         Mo           Radio standard Bluetooth         Mo           Radio standard GPRS         Mo           Radio standard GPRS         Mo           Radio standard GPRS         Mo           Radio standard GMTS         Mo           I Dink master         Mo           Type of display         Mo           With colour display         Mo           Number of colours of the display         Mo           Number of prey-scales/blue-scales of display         Mo           Number of pixels, horizontal         Mo           Number of pixels, vertical         Mo           With alpa numeric keyboard         Mo           Wit			
Supporting protocol for AS-Interface Safety at Work         6         6         7         <			
Supporting protocol for DeviceNet Safety         6         No           Supporting protocol for INTERBUS-Safety         No         No           Supporting protocol for SafetyBUS p         No         No           Supporting protocol for SafetyBUS p         No         No           Supporting protocol for SafetyBUS p         No         No           Supporting protocol for Methe sub systems         No         No           Radio standard Bluetooth         No         No           Radio standard BUALAN 802.11         No         No           Radio standard GPRS         No         No           Radio standard GMTS         No         No           Roll in Master         No         No           Yibe of display         No         No           With colour display         FFT         FT           With colour display         S6538         No           Number of grøy-scales/blue-scales of display         5538         No           Screen diagonal         Inc         3         1           Number of pixels, horizontal         Inc         3         2           Number of pixels, horizontal         Inc         3         2           Useful project memory/user memory         Inc         4			
Supporting protocol for INTERBUS-Safety         No           Supporting protocol for SafetyBUS p         No           Supporting protocol for SafetyBUS p         No           Supporting protocol for other bus systems         Yes           Radio standard Bluetooth         No           Radio standard Bluetooth         No           Radio standard QFPS         No           Radio standard GSM         Yes           Radio standard UMTS         No           10 link master         No           Type of display         TFT           With colour display         Ses           Number of grey-scales/blue-scales of display         5           Number of grey-scales/blue-scales of display         6           Screen disponal         Yes           Number of pixels, horizontal         Yes           Number of pixels, vertical         Yes           Useful project memory/user memory         Yes           With alpha numeric keyboard         Yes           Number of buttons, programmable         Yes           Number of buttons with LED         Yes           With alpha numeric keyboard         Yes           Number of buttons, programmable         Yes           Number of buttons yeth Ede         Yes			
Supporting protocol for PROFIsafe         No           Supporting protocol for SafetyBUS p         Yes           Supporting protocol for other bus systems         Yes           Radio standard Bluetooth         No           Radio standard GPRS         No           Radio standard GPRS         No           Radio standard GPRS         No           Radio standard GMTS         No           Radio standard GMTS         No           It link master         No           Type of display         TFT           With colour display         Yes           Number of grey-scales/blue-scales of display         5           Screen diagonal         No           Number of pixels, horizontal         Yes           Number of pixels, horizontal         Yes           Number of pixels, vertical         Yes           Vith numeric keyboard         Yes           With alpha numeric keyboard         Yes           Number of function buttons, programmable         Yes <td>,</td> <td></td> <td></td>	,		
Supporting protocol for SafetyBUS p         Ke         Yes           Radio standard Bluetooth         No         No           Radio standard WLAN 802.11         No         No           Radio standard GPRS         No         No           Radio standard GSM         No         No           Radio standard UMTS         No         No           I link master         No         No           Type of display         TFT         Yes           With colour display         Yes         Sessal           Number of grey-scales/blue-scales of display         0         Sessal           Screen diagonal         No         5.7           Number of pixels, horizontal         20         320           Number of pixels, vertical         40         40           Useful project memory/user memory         Yes         Yes           With alpha numeric keyboard         Yes         Yes           Number of function buttons, programmable         Yes         Yes           Number of func			
Supporting protocol for other bus systems       Yes         Radio standard Bluetooth       No         Radio standard WLAN 802.11       No         Radio standard GPRS       No         Radio standard GSM       No         Radio standard UMTS       No         10 link master       No         Type of display       TFT         With colour display       Yes         Number of colours of the display       TFT         Number of grey-scales/blue-scales of display       0         Screen diagonal       Inch       5.7         Number of pixels, horizontal       320         Number of pixels, vertical       240         Useful project memory/user memory       Byte       64000         With alpha numeric keyboard       Yes         With alpha numeric keyboard       Yes         Number of function buttons, programmable       0         Number of system buttons       1         Vish alpha numeric keyboard       Yes         With alpha numeric keyboard       Yes         With colors with LED       0         Number of function buttons, programmable       0         Number of system buttons       Yes			
Radio standard Bluetooth Radio standard WLAN 802.11 Radio standard GPRS Radio standard GSM Radio standard GSM Radio standard GSM Radio standard UMTS  ID link master ID link master Vith colour display Vith colour display  No			
Radio standard WLAN 802.11         6         1         No           Radio standard GPRS         7         No           Radio standard GSM         6         1         No           Radio standard UMTS         6         No         No           10 link master         6         1         No           Type of display         7         TFT           With colour display         9         6556           Number of grey-scales/blue-scales of display         9         5.7           Number of pixels, horizontal         9         320           Number of pixels, horizontal         9         40           Useful project memory/user memory         8         400           With alpha numeric keyboard         7         Yes           With alpha numeric keyboard         9         7           With alpha numeric keyboard         9         7           Number of function buttons, programmable         9         9           Number of system buttons         9         1           Number of system buttons         9         1           With touch screen         9         1			
Radio standard GPRS Radio standard GSM Radio standard UMTS Rodio s			
Radio standard GSM Radio standard UMTS 10 link master Type of display With colour display Number of colours of the display Number of grey-scales/blue-scales of display Number of pixels, horizontal Number of pixels, vertical Useful project memory/user memory With numeric keyboard With numeric keyboard Number of function buttons, programmable Number of function buttons, programmable Number of system buttons Number of system sy			
Radio standard UMTS 10 link master 17 link master 17 link master 18 link master 19 link master 10 link master 1			
IO link master Type of display With colour display Number of colours of the display Number of grey-scales/blue-scales of display Screen diagonal 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 Number of system buttons With touch screen With touch screen			
Type of display  With colour display  With colour display  Number of colours of the display  Number of grey-scales/blue-scales of display  Screen diagonal  Number of pixels, horizontal  Number of pixels, vertical  Useful project memory/user memory  With numeric keyboard  With alpha numeric keyboard  With alpha numeric keyboard  With alpha numeric keyboard  With seyboard  With seyboard  With seyboard  With seyboard  With seyboard  With alpha numeric keyboard  With alpha numeric keyboard  With seyboard  With seyb			
With colour displayYesNumber of colours of the display65536Number of grey-scales/blue-scales of display0Screen diagonalinch5.7Number of pixels, horizontal320Number of pixels, vertical240Useful project memory/user memorykByte64000With numeric keyboardYesWith alpha numeric keyboardYesNumber of function buttons, programmable0Number of buttons with LED0Number of system buttons1With touch screenYes			
Number of colours of the display  Number of grey-scales/blue-scales of display  Screen diagonal  Number of pixels, horizontal  Number of pixels, vertical  Useful project memory/user memory  With numeric keyboard  With alpha numeric keyboard  Number of function buttons, programmable  Number of system buttons  Number of system buttons  With touch screen  Number of system buttons  Number of system buttons  With touch screen  Session  O  O  Session  O  Ves  Ves  Ves  Ves  Ves  Ves  Ves			
Number of grey-scales/blue-scales of display  Screen diagonal  Number of pixels, horizontal  Number of pixels, vertical  Useful project memory/user memory  With numeric keyboard  With alpha numeric keyboard  Number of function buttons, programmable  Number of system buttons  With touch screen  O  Number of system buttons  Yes  Ves  Ves  Ves  Ves  Ves  Ves  Ve			
Screen diagonal  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 buttons with LED  Number of system buttons  With touch screen  inch  5.7  240  400  4000  Yes  64000  Yes  0  0  Number of system buttons, programmable  1  With touch screen  inch  5.7  240  400  400  400  400  400  400  40			
Number of pixels, horizontal  Number of pixels, vertical  Useful project memory/user memory  With numeric keyboard  With alpha numeric keyboard  Ves  With alpha numeric keyboard  Ves  Number of function buttons, programmable  Number of buttons with LED  Number of system buttons  With touch screen  Number of system buttons  Yes  Ves		inch	
Number of pixels, vertical  Useful project memory/user memory  With numeric keyboard  With alpha numeric keyboard  Ves  Number of function buttons, programmable  Number of buttons with LED  Number of system buttons  With touch screen  240  400  400  400  400  400  400  40		IIICII	
Useful project memory/user memory  With numeric keyboard  With alpha numeric keyboard  With alpha numeric keyboard  Yes  Number of function buttons, programmable  Number of buttons with LED  Number of system buttons  I  With touch screen  KByte 64000  Yes  O  Ves  Yes			
With numeric keyboard  With alpha numeric keyboard  Yes  Number of function buttons, programmable  Number of buttons with LED  Number of system buttons  1  With touch screen  Yes		kByte	
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		KDYLE	
Number of function buttons, programmable  0  Number of buttons with LED  0  Number of system buttons  1  With touch screen  Yes			
Number of buttons with LED 0 Number of system buttons 1 With touch screen Yes			
Number of system buttons 1 With touch screen Yes			
With touch screen Yes			
With message maneualit			

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
Additional software components, loadable		Yes
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	212
Height of the front	mm	156
Built-in depth	mm	55

# Approvals

PP	
Product Standards	UL 60950-01; CSA-C22.2 No. 60950-1; IEC/EN 61131-2; CE marking
UL File No.	E208621
UL Category Control No.	NWGQ2, NWGQ8
CSA File No.	UL report applies to both US and Canada
CSA Class No.	-
North America Certification	UL recognized, certified by UL for use in Canada
Conditions of Acceptability	The investigated Pollution Degree is: 2 Proper bonding to the end-product main protective earthing termination is: Required The following end-product enclosures are required: Fire, Electrical The unit must be supplied via a SELV source. The provided Ethernet Connection is only allowed to connect to inhouse networks.
Specially designed for North America	No
Current Limiting Circuit-Breaker	No
Degree of Protection	IEC: IP65, UL/CSA Type: -

## **Dimensions**

Dimensions