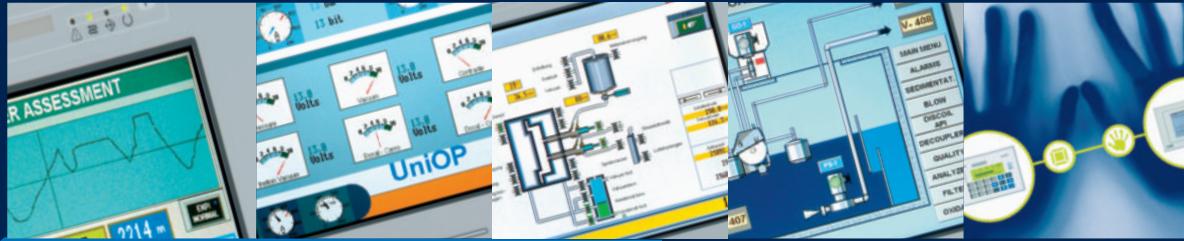


UniOP

Touch & Controls

Sold by AA Electric 1-800-237-8274 Lakeland, FL • Lawrenceville, GA • Greensboro, NC • East Rutherford, NJ www.A-Aelectric.com



EXOR

No limits UniOP touch & controls

EXOR has a long-standing history of delivering the highest-quality products for industrial automation and embedded system applications. Prestigious automation companies confirm this reputation by relying on EXOR's tried & true know-how and offering UniOP products under various brand-label agreements. EXOR provides total HMI solutions, from board-level embedded systems to simple text displays, monochrome graphics units, full color touchscreen workstations, to powerful industrial computers. Our products are

currently sold, serviced, and supported in more than 40 countries around the world, with many large companies and OEM using EXOR units to expand their product offering. EXOR's goal is to provide easy to use products that meet today's challenging requirements with a strong focus on leveraging the advantages of ever-changing technologies.

Using continuing customer oriented product development, EXOR has taken specific applications in PLC, Motion and Industrial PC, and turned them into proven solutions.



Compact - Capable - Cost Effective The EXOR Product Range

This is unique...

Even the smallest systems have the capability of sending SMS messages or receiving data via the GSM modem and transferring it as a gateway to the controls. There is the option of integrating a high-performance PLC module even in the lowest cost systems. The CoDeSys control development tool from 3S can be used to create your IEC 61131 applications. This provides an inexpensive and compact alternative to conventional PLC systems.

Video Input Module

Display up to four live video images from three composite video signals plus one VGA port with the new VMO10 video input module. UniOP panels can easily become the front-end for video cameras and computers and are ideal for displaying live images on the factory floor or in building automation/marine applications. Video windows can be freely positioned on the screen for multi-channel presentations or full-screen display of a single channel.



eTOP02 / eTOP03



eTOP05



eTOP10B / eTOP11



eTOP20B - eTOP21B



eTOP33B



eTOP39B



eTOP40B



eTOP50B

Integrated PLC



ePAD03/ePAD04



ePAD05/ePAD06



CP10G-04/CP11G-04



ePALM10



ePAD33B

Low cost
high-performance
touch-displays

Customer-specific development

One software for all systems

Worldwide sales & service

Many Devices - One Software Tool

EXOR Designer 6

The software concept

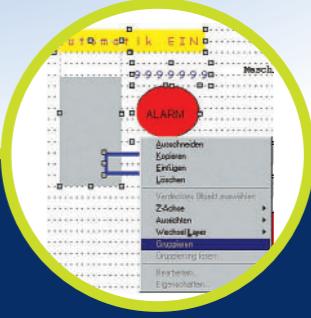
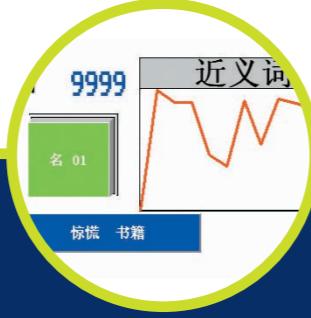
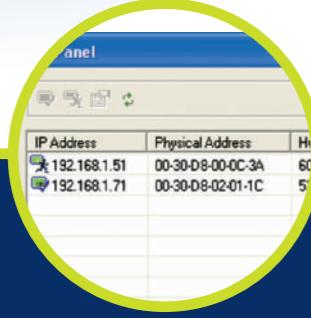
Designer 6 provides users with an easy to use yet powerful software interface for building applications for the entire UniOP product family. Some of the new features include the integration of TrueType fonts, support for Asian characters and Ethernet upload/download. In addition, access to recipe data, alarms, event list and trend buffers has been extended. With enhanced language management, 64K colors on TFT displays, auto execution of macro commands on power-up and optional video input module, Designer meets the need of the most

demanding HMI applications in industrial and building automation. Detailed project documentation is provided by the extended printout functions, with cross-referencing. With a single programming tool for all UniOP panels, including text displays, graphic screens, handheld or touch panels, and the availability of more than 200 drivers, Designer gives you the tools necessary for all your HMI needs. The easy to use and intuitive interface will help you create screens that provide your operators with the information that they need, in real time, to manage the process.

Ethernet communication protocols

Most Ethernet-based communication protocols currently in use in the industry are available for use with one of the optional modules. Among them:

- Simatic S7
- Modbus/TCP (Client&Server)
- Ethernet/IP CIP
- SAIA S-BUS
- GE SRTP
- Hitachi H
- Festo EasyIP
- Mitsubishi Q
- Omron FINS
- Bosch Rexroth SIS
- Jetter PCOM7



Language management - import/export of applications

All alarm messages, legends and dynamic text information can be conveniently exported for ease of translation to an Excel spreadsheet. This makes it possible to re-import your text in different languages into your project file. The creation of Chinese text is also done with ease: with a few commands your lettering appears in Chinese characters.

Full Ethernet Connectivity

Connect your panel to a network and you are ready for upload/download of project files, access to recipe data, alarms and trend buffers. Several options are available for the panel's IP assignment including DHCP. You can now build your automation system completely based on Ethernet communication. Just plug one cable to program the HMI with Designer, network multiple panels, connect the HMI to the PLC and perform data acquisition from higher-level systems with the UniNet OPC Server.

Far East Languages

Far East languages such as Chinese and Japanese are now supported by Designer. Multilanguage applications including both Western and Far East scripts can be easily created with Designer and transferred to the panel for a great graphical presentation using TrueType fonts.

More colors for realistic graphics

If you need sharper and more attractive screens you will enjoy the new color depth of 16 bits for images up to 64K colors, supported in all B-generation products with TFT display. Photorealistic images for higher quality displays are now possible.

The integrated graphic editor makes it possible for users who have no special software knowledge to process either imported graphics or their own custom graphics. Therefore the pixel-oriented creation and positioning of graphics is made easy. Designer 6 supports the import of all popular standard graphic formats such as JPG, BMP, TIF, DXF.

Object-oriented workflow

Grouped objects can be copied into an object dictionary as a group using drag and drop. They can then be given a name and simply used again in other projects. This makes it easy for you to create and administer your own symbol or function groups.

All elements in the designer software are objects and this makes it easy for them to be processed, copied, cut and pasted, in the same way you would with other Windows-based programs. In this way objects can also be easily combined with each other. The software makes it possible for objects to be grouped or given a specific sequence.

Everything at a Glance

EXOR Operator Panels



		ePALM10	ePAD03/ePAD04	ePAD05/ePAD06	CP10G-04/CP11G-04	MKDG-06	BKDR-46/BKDC-46	ePAD3B/ePAD3BT	eTOP02	eTOP03	eTOP05	eTOP10B	eTOP11	eTOP20B	eTOP21B	eTOP32B	eTOP39B	eTOP40B	eTOP50B
Communication:	200 drivers, 11 fieldbuses	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	
Dual driver		yes	yes / -	yes / -	yes / -	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	
Type	LCD	LCD	LCD	LCD	LCD	LCD/STN Color	TFT Color	TFT Color	LCD monochrome	LCD monochrome	TFT Color	STN Color	TFT Color	STN Color	LCD monochrome	TFT Color	TFT Color	TFT Color	
Colors	-	-	-	-	-	- / 16	64K	256	-	-	64K	16	64K	256	-	64K	64K	64K	
Diagonal (inch)	-	-	-	-	-	5.6"	10.4"	3.5"	3.8"	5.6"	5.6"	5.6"	7.5"	7.5"	9.6"	10.4"	10.4"	15"	
Lines x characters	8 x 20	4 x 20	4 x 20	4 x 20	8 x 40	-	-	-	-	-	-	-	-	-	-	-	-	-	
Resolution	120 x 64	120 x 32	120 x 32	120 x 32	240 x 64	320 x 240 - 1/4 VGA	640 x 480 - VGA	320 x 240 - 1/4 VGA	320 x 240 - 1/4 VGA	320 x 240 - 1/4 VGA	320 x 240 - 1/4 VGA	320 x 240 - 1/4 VGA	640 x 480 - VGA	640 x 480 - VGA	640 x 480 - VGA	640 x 480 - VGA	800 x 600 - SVGA	1024 x 768 XVGa	
Definable characters	256	256	256	256	256	256	TTF	256	256	256	TTF	256	TTF	TTF	TTF	TTF	TTF	TTF	
Dimming	-	-	-	-	-	-	yes	-	-	-	yes	-	-	-	yes	yes	yes	yes	
Touchscreen	-	-	-	-	-	-	- / yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	
Function Keys	9	4	9	12	23	33	35	-	-	-	-	-	-	-	-	-	-	-	
System keys	18	6	10	23	24	24	24	-	-	-	-	-	-	-	-	-	-	-	
Numerical keys	yes	-	yes	yes	yes	yes	yes	-	-	-	-	-	-	-	-	-	-	-	
LED indicators	20	5	10	13	25	25	25	-	-	-	-	-	-	-	-	-	-	-	
Memory:	User Memory (Flash)	512KB	512 KB	512KB	512KB	32 MB	32 MB	1 MB	512KB	32 MB	32 MB								
Flash card option	-	-	-	-	-	yes	yes	-	-	yes	yes								
Recipe memory	16KB	16KB / -	16KB / -	16KB / -	16KB	32KB	32KB	32KB	32KB	32KB	32KB	32KB	32KB	32KB	32KB	32KB	32KB	32KB	
Interface:	PLC Port	RS-232, RS-485			RS-232, RS-485, CL			RS-232, RS-485			RS-232, RS-485, CL			RS-232, RS-485			RS-232, RS-485, CL		
Programming/Printer Port	yes	-	-	yes / -	yes	yes	yes	-	-	yes	yes								
UniNet (server and client)	yes	yes / client	yes / client	yes / client	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	
Aux port (optional fieldbus/Ethernet)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	
Ethernet programming	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	
Serial PLC Communication	38.400Bd	38.400Bd/9.600Bd	38.400Bd/9.600Bd	38.400Bd/9.600Bd	38.400Bd	38.400Bd	38.400Bd	38.400Bd	38.400Bd	38.400Bd	38.400Bd	38.400Bd	38.400Bd	38.400Bd	38.400Bd	38.400Bd	38.400Bd	38.400Bd	
Graphic	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	
Video Input Option	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trend acquisition and display	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Battery	yes	yes / -	yes / -	yes / -	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	
Real Time Clock	yes	yes / -	yes / -	yes / -	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	
Password	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	
Alarms	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	1024	
Event list	256	256 / -	256 / -	256 / -	256	1024	1024	1024	256	1024	1024	1024	1024	1024	1024	1024	1024	1024	
Power Supply:	Voltage	18 - 30 VDC																	
Current rating (at 24 VDC)	0.3 A	0.25 A	0.25 A	0.3 A	0.4 A	0.6 A	0.7 A	0.4 A	0.4 A	0.6 A	0.6 A	0.6 A	0.7 A	0.7 A	0.7 A	0.7 A	0.8 A	1.2 A	
Degree of protection (front panel)	IP65	IP65, NEMA 4X	IP65, NEMA 4X	IP65, NEMA 4X	IP65, NEMA 4X	IP65, NEMA 4X	IP65, NEMA 4X	IP65, NEMA 4X	IP65, NEMA 4X	IP65, NEMA 4X	IP65, NEMA 4X	IP65, NEMA 4X	IP65, NEMA 4X	IP65, NEMA 4X	IP65, NEMA 4X	IP65, NEMA 4X	IP65, NEMA 4X		
Temperature range (vertical installation)	0 - 50 °C	0 - 50°C	0 - 50°C	0 - 50°C	0 - 50°C	0 - 50°C	0 - 50°C	0 - 45°C	0 - 50°C	0 - 50°C	0 - 45°C	0 - 45°C							
Dimensions:	Front L x H mm / inches	116x239 / 4.56x9.40	149x109 / 5.86x4.29	149x109 / 5.86x4.29	141x176 / 5.55x6.93	220x176 / 8.66x6.93	275x220 / 10.82x8.66	311x276 / 12.24x10.86	149x109 / 5.86x4.29	149x109 / 5.86x4.29	187x147 / 7.36x5.78	187x147 / 7.36x5.78	187x147 / 7.36x5.78	232x187 / 9.13x7.36	232x187 / 9.13x7.36	287x232 / 11.30x9.13	287x232 / 11.30x9.13	337x267 / 13.26x10.51	392x307 / 15.43x12.08
Cutout L x H mm / inches	136x96 / 5.35x3.78	136x96 / 5.35x3.78	136x96 / 5.35x3.78	128x163 / 5.04x6.41	207x163 / 8.15x6.41	262x207 / 10.31x8.15	292x257 / 11.49x10.12	136x96 / 5.35x3.78	136x96 / 5.35x3.78	176x136 / 6.93x5.35	176x136 / 6.93x5.35	176x136 / 6.93x5.35	221x176 / 8.70x6.93	221x176 / 8.70x6.93	276x221 / 10.86x8.70	276x221 / 10.86x8.70	326x256 / 12.83x10.08	381x296 / 15.00x11.65	
Weight	0.5 Kg (no cable)	1 Kg	1 Kg	1.1 Kg	1.2 Kg	1.9 Kg	2.7 Kg	1 Kg	1 Kg	1.4 Kg	1.4 Kg	1.4 Kg	1.6 Kg	1.6 Kg	2.25 Kg	3.4 Kg	2.85 Kg	3.85 Kg	
Approvals:	CE, cULus	CE, cULus, Class I Div 2	CE, cULus, Class I Div 2	CE, cULus, Class I Div 2	CE, cULus	CE, cULus	CE, cULus	CE, cULus**	CE, cULus, Class I Div 2										
Programming:	Designer 6																		

Equipment	Memory	Communication modules						Video Input	HMIcontrol
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Modular and Flexible EXOR Embedded Technology

Flexible communication and customer-specific embedded technology have contributed to EXOR's high integration capability.

For many years now, all EXOR data entry systems have had a high level of integration capability because of the extensive offering of communication interfaces. EXOR's compatibility with the worldwide web, mobile phones, PLCs and the related

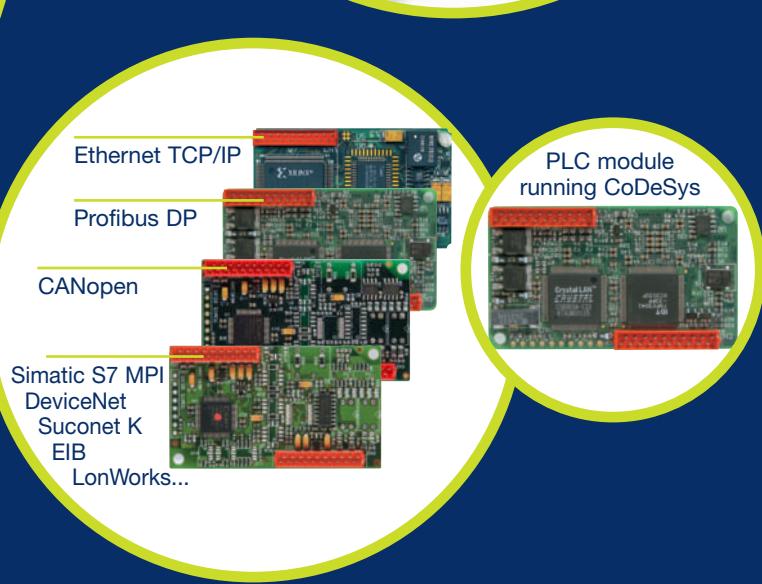
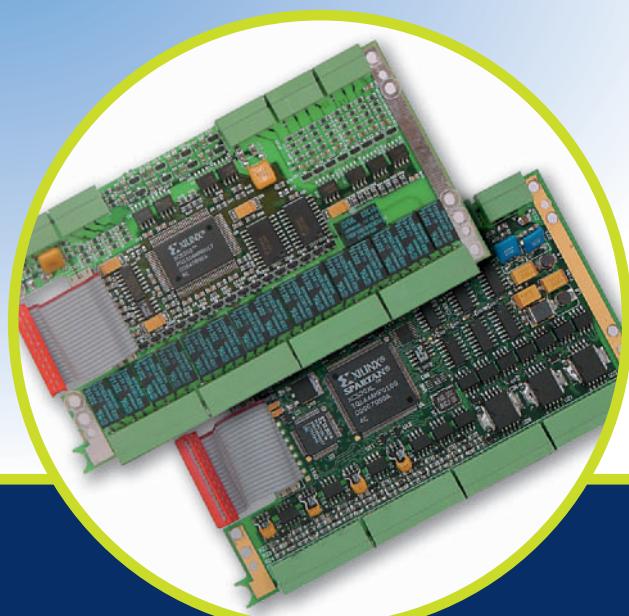
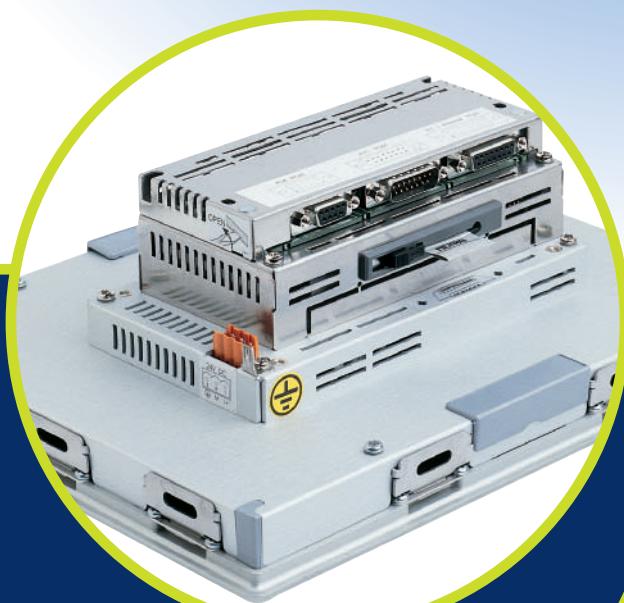
communication standards such as XML or SOAP offer a highly flexible solution.

Interchangeable communication modules provide a set of industry standard solutions, while keeping the communication open for possible changes in the future. EXOR systems provide expansion ports for optional modules with the connections to highly intelligent system boards that can provide customer specific

solutions. This is true whether it's a web server, embedded PLC, motion control or simply an Ethernet module for connection to the planned or existing company network. With our multi-protocol UniNet OPC server, data can be simply integrated into the control and IT system via Ethernet.

Communication modules

Communication modules for all fieldbus and LAN applications can be integrated in all EXOR systems including handheld systems and Windows CE units.





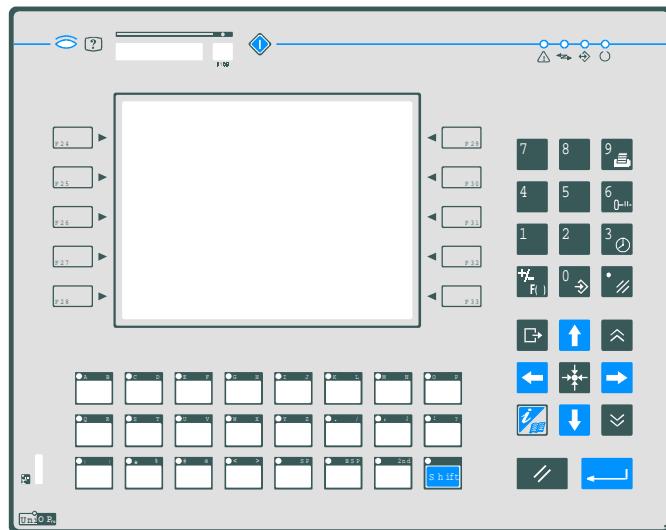
EXOR

UniOP BKDR-46, BKDC-46

HMI with ¼ VGA display (available in the monochrome and STN color versions), and ASCII keyboard.

Highlights

- **¼ VGA (320x240 pixels) display**
- **Graphic display**
- **16 row, 40 characters of text**
- **33 Function keys**
- **24 user LEDs**
- **ASCII keyboard**
- **Multilanguage project capability**
- **Connection to bus systems**



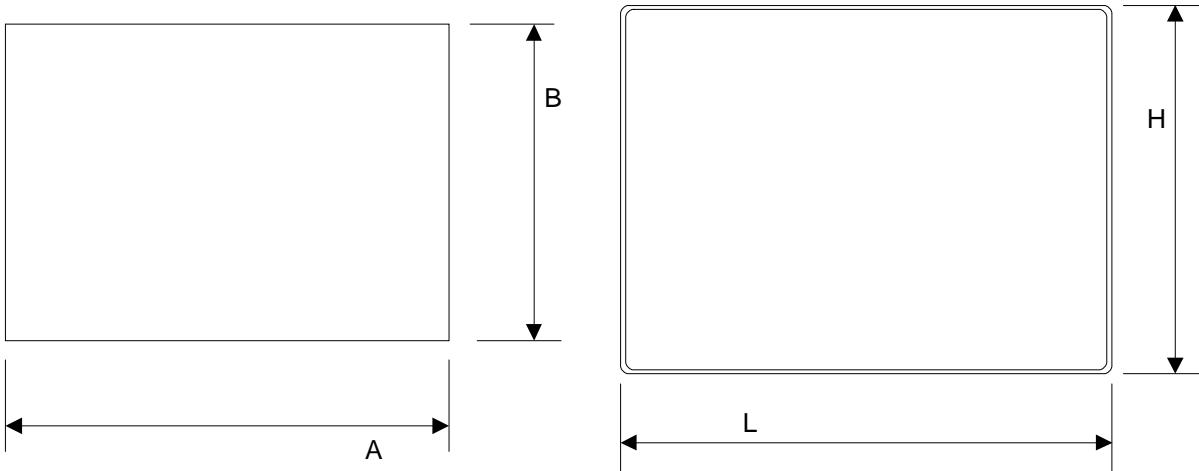
Technical data

	BKDR-46	BKDC-46
Display	Monochrome LCD	STN Color LCD
Backlight	CCFL	
Graphics	320x240 pixels	
Display dimensions	121x91 mm / 5.6"	
Rows/columns	16x40	
Character height	-	
Scalable fonts	Yes	
User definable characters	256	
Contrast regulation	Software	
User memory	8MB (SSFDC card)	
User memory expansion	-	
Function keys	33	
System keys	24	
Touch screen	No	
User LEDs	24	
System LEDs	5	
PC/Printer port	Yes	

	BKDR-46	BKDC-46
PLC port		
Aux port (fieldbus connection)	RS-232, RS-485, RS-422 CL 20 mA	
External keyboard port	Yes, with optional modules	
Programming speed	No	
Page size	9600 ÷ 38400 bps	
Number of variables per page	32 rows	
Recipe memory	Unlimited	
UniNet network	32 KB	
Alarms	Client/Server	
Event list	1024	
Alarm info page	1024	
Password	Yes	
Battery	Yes	
Hardware RTC	Yes	
Screen saver	Yes	
Buzzer	No	
Fuse	2 A (user replaceable)	
Power supply voltage	18 ÷ 30 VDC	
Max power consumption on 24VDC	~ 600 mA	
Max panel thickness	5 mm	
Weight	~ 1.9 Kg	
Operating temperature	0 ÷ 50 °C	
Storage temperature	-20 ÷ +70 °C	
Operating and storage humidity	5 ÷ 95 % RH non-condensing	
Protection class	IP65 (front panel)	

Front dimensions and cutout

Front dimensions LxH	275x220mm	10.83x8.66 "
Cutout AxB	262x207mm	10.31x8.15 "

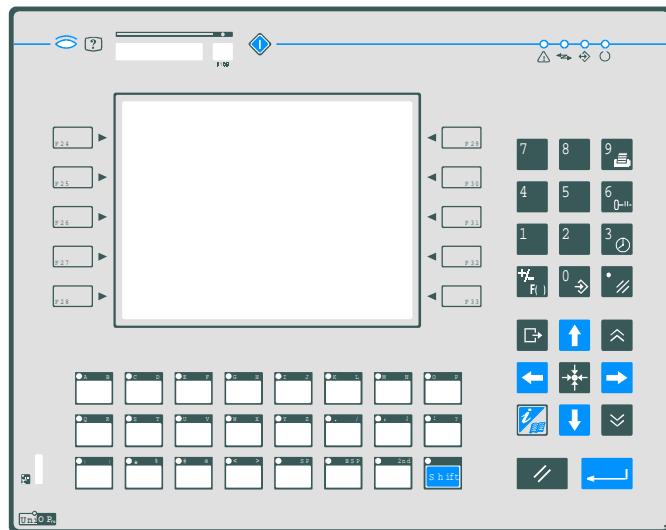


UniOP BKDR-46, BKDC-46

HMI with ¼ VGA display (available in the monochrome and STN color versions), and ASCII keyboard.

Highlights

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- **Graphic display**
- **16 row, 40 characters of text**
- **33 Function keys**
- **24 user LEDs**
- **ASCII keyboard**
- **Multilanguage project capability**
- **Connection to bus systems**



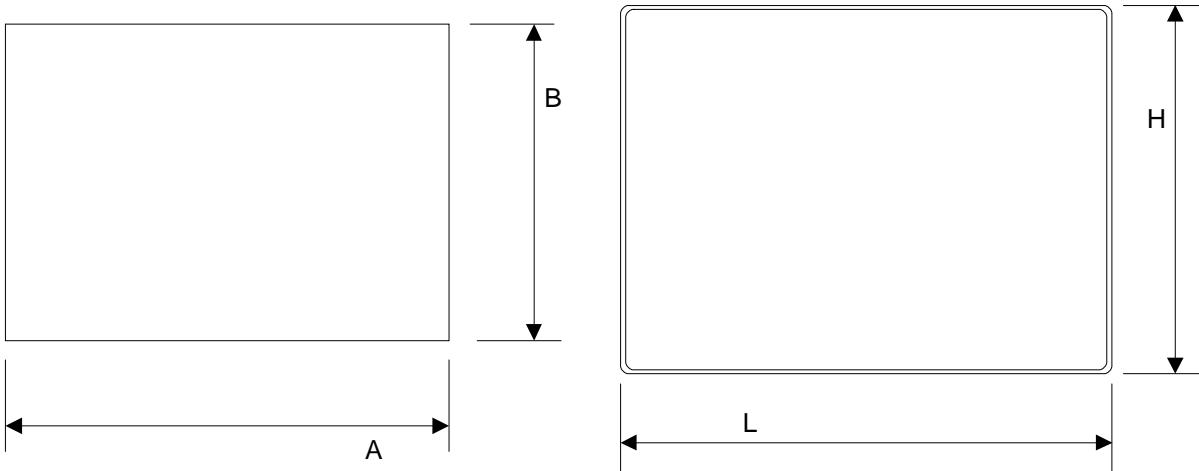
Technical data

	BKDR-46	BKDC-46
Display	Monochrome LCD	STN Color LCD
Backlight	CCFL	
Graphics	320x240 pixels	
Display dimensions	121x91 mm / 5.6"	
Rows/columns	16x40	
Character height	-	
Scalable fonts	Yes	
User definable characters	256	
Contrast regulation	Software	
User memory	8MB (SSFDC card)	
User memory expansion	-	
Function keys	33	
System keys	24	
Touch screen	No	
User LEDs	24	
System LEDs	5	
PC/Printer port	Yes	

	BKDR-46	BKDC-46
PLC port		
Aux port (fieldbus connection)	RS-232, RS-485, RS-422 CL 20 mA	
External keyboard port	Yes, with optional modules	
Programming speed	No	
Page size	9600 ÷ 38400 bps	
Number of variables per page	32 rows	
Recipe memory	Unlimited	
UniNet network	32 KB	
Alarms	Client/Server	
Event list	1024	
Alarm info page	1024	
Password	Yes	
Battery	Yes	
Hardware RTC	Yes	
Screen saver	Yes	
Buzzer	No	
Fuse	2 A (user replaceable)	
Power supply voltage	18 ÷ 30 VDC	
Max power consumption on 24VDC	~ 600 mA	
Max panel thickness	5 mm	
Weight	~ 1.9 Kg	
Operating temperature	0 ÷ 50 °C	
Storage temperature	-20 ÷ +70 °C	
Operating and storage humidity	5 ÷ 95 % RH non-condensing	
Protection class	IP65 (front panel)	

Front dimensions and cutout

Front dimensions LxH	275x220mm	10.83x8.66 "
Cutout AxB	262x207mm	10.31x8.15 "

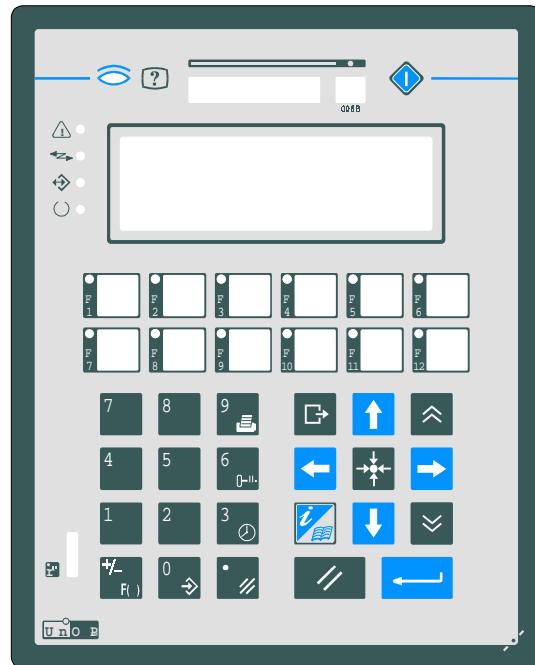


UniOP CP10G-04, CP11G-04

Compact low-cost HMI with monochrome graphic display.

Highlights

- Monochrome graphic display
- 4 rows, 20 columns of text
- Downloadable fonts
- Scalable text
- 12 function keys with slide-in legends
- 13 user LEDs
- Multilanguage project capability
- Connection to bus systems
- New plastic bezel with flat design



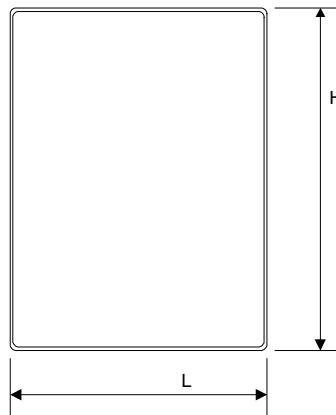
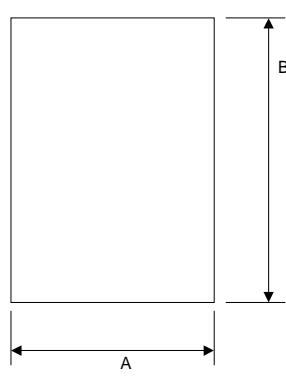
Technical data

	CP10G-04	CP11G-04
Display	Monochrome LCD	
Backlight	LED	
Graphics	120x32 pixels	
Display dimensions	70x21 mm	
Rows/columns	4x20	
Character height	-	
Scalable fonts	Yes	
User definable characters	256	
Contrast regulation	Software	
User memory	512 KB (64 KB reserved to the protocol)	
User memory expansion	512 KB	
Function keys	12	
System keys	23	
Touch screen	No	
User LEDs	13	
System LEDs	4	
PC/Printer port	Yes	No

	CP10G-04	CP11G-04
PLC port	RS-232, RS-422, RS-485, CL 20 mA	
Aux port (fieldbus connection)	Yes, requires optional module	
External keyboard port	No	
Programming speed	9600 ÷ 38400 bps	9600 bps
Page size	32 rows	
Number of variables per page	Unlimited	
Recipe memory	16 KB	No
UniNet network	Client/Server	Client
Alarms	1024	256
Event list	256	No
Alarm info page	Yes	
Password	Yes	
Battery	Yes	No
Hardware RTC	Yes	No
Screen saver	No	
Buzzer	No	
Fuse	2 A (user replaceable)	
Power supply voltage	18 ÷ 30 VDC	
Max power consumption at 24VDC	~ 300 mA	
Max panel thickness	5 mm	
Weight	~ 1.1 Kg	
Operating temperature	0 ÷ +50 °C	
Storage temperature	-20 ÷ +70 °C	
Operating and storage humidity	5 ÷ 85 % RH non-condensing	
Protection class	IP65 (front panel)	

Front dimensions and cutout

Front dimensions LxH	141x176 mm	5.55x6.93 "
Cutout AxB	128x163 mm	5.04x6.42 "
Cutout depth – version -0045	76 mm	2.99 "
Cutout depth – version -0050 (Snap-top)	79.7 mm	3.14 "

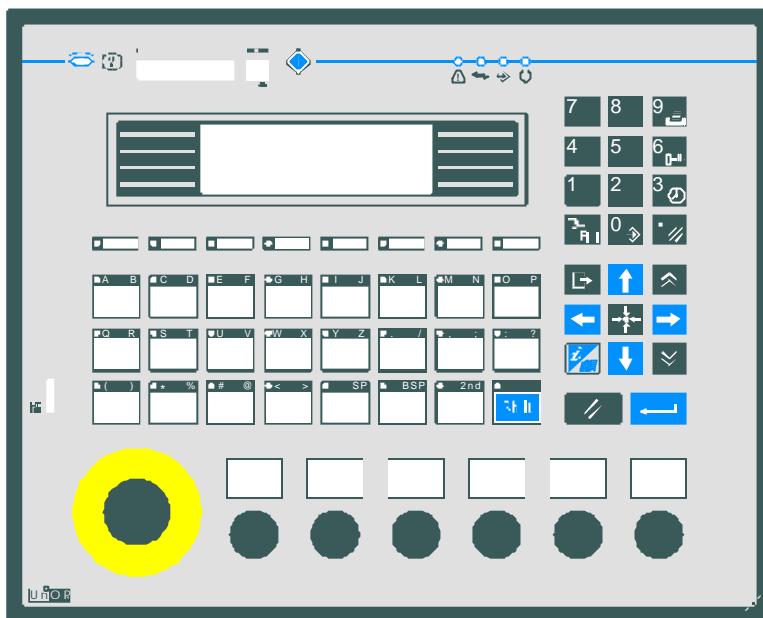


UniOP CP12G-04, CP13G-04

HMI panel with monochrome graphic display, ASCII keyboard and ready to house up to 7 electromechanical devices provided by the user.

Highlights

- Monochrome graphic display
- 4 rows, 20 columns of text
- ASCII keyboard
- Downloadable fonts
- Scalable text
- Ready to house electromechanical devices provided by the user
- Multilanguage project capability
- Connection to bus systems
- New plastic bezel with flat design



Technical data

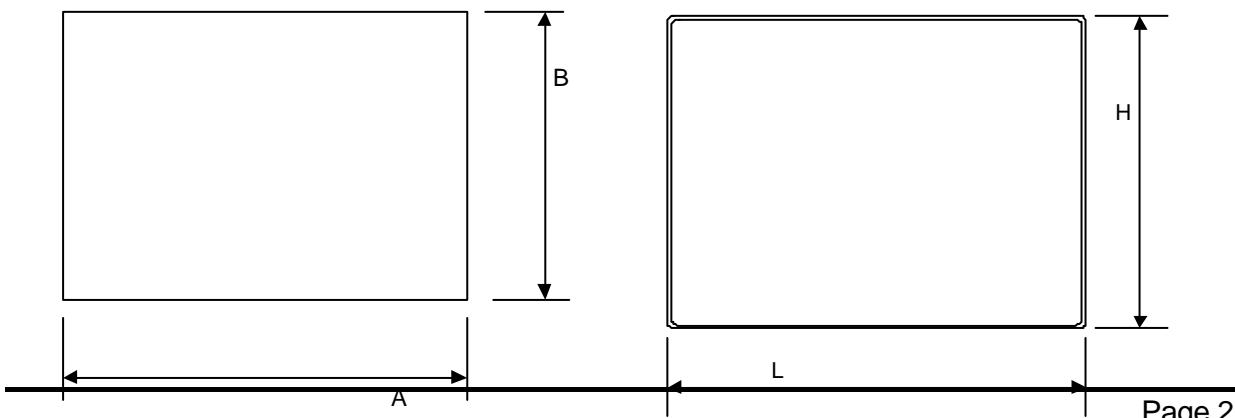
Display	CP12G-04
Backlight	Monochrome LCD
Graphics	LED
Display dimensions	120x32 pixels
Rows/columns	70x21 mm
Character height	4x20
Scalable fonts	-
User definable characters	Yes
Contrast regulation	256
User memory	Software
User memory expansion	512 KB (64 KB reserved to protocol)
Function keys	512 KB
System keys	23
Touch screen	24
	No

	CP12G-04	CP13G-04
Display	Monochrome LCD	
Backlight	LED	
Graphics	120x32 pixels	
Display dimensions	70x21 mm	
Rows/columns	4x20	
Character height	-	
Scalable fonts	Yes	
User definable characters	256	
Contrast regulation	Software	
User memory	512 KB (64 KB reserved to protocol)	
User memory expansion	512 KB	
Function keys	23	
System keys	24	
Touch screen	No	

	CP12G-04	CP13G-04
User LEDs	32	
System LEDs	5	
PC/Printer port	Yes	No
PLC port	RS-232, RS-422, RS-485, CL 20 mA	
Aux port (fieldbus connection)	Yes, with optional modules	
External keyboard port	No	
Programming speed	9600 ÷ 38400 bps	9600 bps
Page size	32 rows	
Number of variables per page	Unlimited	
Recipe memory	16 KB	No
UniNet network	Client/Server	Client
Alarms	1024	256
Event list	256	No
Alarm info page	Yes	
Password	Yes	
Battery	Yes	No
Hardware RTC	Yes	No
Screen saver	No	
Buzzer	No	
Fuse	2 A (user replaceable)	
Power supply voltage	18 ÷ 30 VDC	
Max power consumption at 24VDC	~ 250 mA	
Max panel thickness	5 mm	
Weight	~ 2Kg	
Operating temperature	0 ÷ +50 °C	
Storage temperature	-20 ÷ +70 °C	
Operating and storage humidity	5 ÷ 95 % UR non-condensing	
Protection class	IP65 (front panel)	

Front dimensions and cutout

Front dimensions LxH	275x220 mm	10.83x8.66 "
Cutout AxB	262x207 mm	10.31x8.15 "
Mechanical keys predisposition	1 x □ 22mm, 6 x □ 16mm	1 x □ 0.86", 6 x □ 0.63"

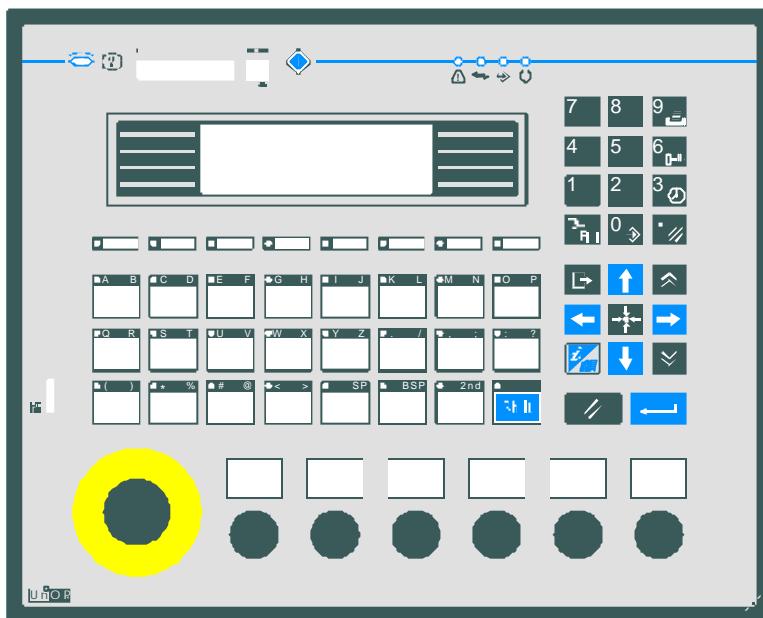


UniOP CP12G-04, CP13G-04

HMI panel with monochrome graphic display, ASCII keyboard and ready to house up to 7 electromechanical devices provided by the user.

Highlights

- Monochrome graphic display
- 4 rows, 20 columns of text
- ASCII keyboard
- Downloadable fonts
- Scalable text
- Ready to house electromechanical devices provided by the user
- Multilanguage project capability
- Connection to bus systems
- New plastic bezel with flat design



Technical data

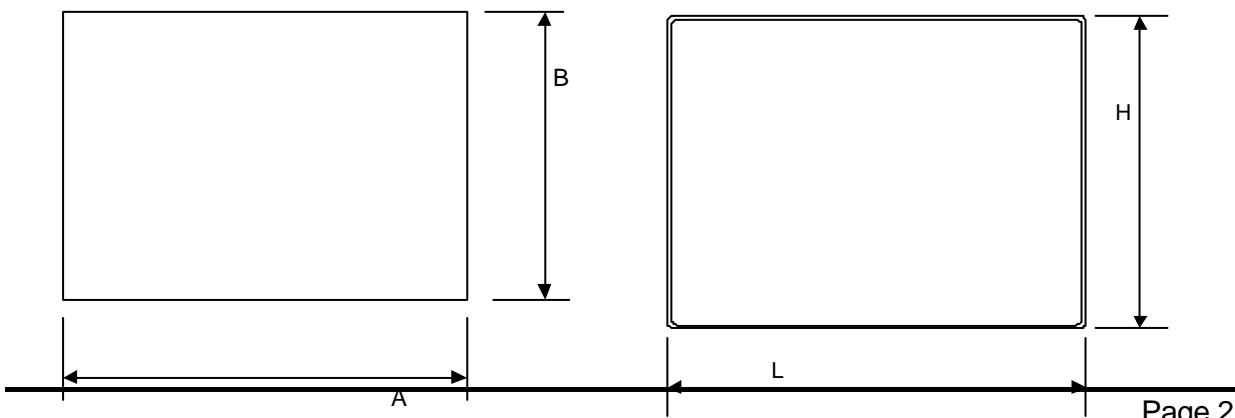
Display
Backlight
Graphics
Display dimensions
Rows/columns
Character height
Scalable fonts
User definable characters
Contrast regulation
User memory
User memory expansion
Function keys
System keys
Touch screen

CP12G-04	CP13G-04
Monochrome LCD	
LED	
120x32 pixels	
70x21 mm	
4x20	
-	
Yes	
256	
Software	
512 KB (64 KB reserved to protocol)	
512 KB	
23	
24	
No	

	CP12G-04	CP13G-04
User LEDs	32	
System LEDs	5	
PC/Printer port	Yes	No
PLC port	RS-232, RS-422, RS-485, CL 20 mA	
Aux port (fieldbus connection)	Yes, with optional modules	
External keyboard port	No	
Programming speed	9600 ÷ 38400 bps	9600 bps
Page size	32 rows	
Number of variables per page	Unlimited	
Recipe memory	16 KB	No
UniNet network	Client/Server	Client
Alarms	1024	256
Event list	256	No
Alarm info page	Yes	
Password	Yes	
Battery	Yes	No
Hardware RTC	Yes	No
Screen saver	No	
Buzzer	No	
Fuse	2 A (user replaceable)	
Power supply voltage	18 ÷ 30 VDC	
Max power consumption at 24VDC	~ 250 mA	
Max panel thickness	5 mm	
Weight	~ 2Kg	
Operating temperature	0 ÷ +50 °C	
Storage temperature	-20 ÷ +70 °C	
Operating and storage humidity	5 ÷ 95 % UR non-condensing	
Protection class	IP65 (front panel)	

Front dimensions and cutout

Front dimensions LxH	275x220 mm	10.83x8.66 "
Cutout AxB	262x207 mm	10.31x8.15 "
Mechanical keys predisposition	1 x □ 22mm, 6 x □ 16mm	1 x □ 0.86", 6 x □ 0.63"



UniOP ePAD03 and ePAD04

Compact low-cost HMI with graphic display. The ePAD03 and ePAD04 panels are defining a new standard for entry-level HMI products. They are the ideal replacement for the successful MD00 Series.

These products are also available with extended operating temperature range for use in extreme environmental conditions.



- Monochrome graphic display 120x32 pixels
- Downloadable fonts
- Scalable text
- 4 user programmable function keys with slide-in legends
- 5 user programmable LED indicators
- Dual-driver communication
- Connection to industrial bus systems and Ethernet with optional modules
- IP65 front panel protection
- Version with extended operating temperature available

Highlights

The ePAD03 and ePAD04 HMI panels are compact low cost products yet extremely rich in functionality. The ePAD03 and ePAD04 are the ideal replacement for panels of the MD00 Series. They generally outperform the equivalent products and can be used in all cases except when the 20 mA current loop interface is needed.

The products support the rich common functionality of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer 6 software
- Dual-driver communication capability
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Scalable fonts for effective presentation of information.
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Recipe data storage. Recipe data can be transferred to an host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure keypad operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to an host computer using the Ethernet connection.
- Eight level password protection.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data			
Display	Monochrome LCD 120x32	Alarms Event list	1024 ePAD03 256 ePAD04 -
Type Resolution Rows/columns Scalable fonts Active display area User definable characters Backlight Contrast regulation	4x20 Yes 70x21 mm 256 LED Software	Password Hardware RTC	Yes ePAD03 Yes, battery back-up ePAD04 -
Memory	512 KB Flash -	Screen saver Buzzer Battery	- - ePAD03 3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product. ePAD04 -
Front panel	- 4, with slide-in legend 7 5 4	Ratings	18 - 30 VDC 0.25 A at 24 VDC Automatic 1 Kg
Interfaces	- RS-232, RS-485, RS-422 Yes, with optional modules ePAD03 9600 – 38400 bps ePAD04 9600 bps	Environmental Conditions	-0046 0 to 50 °C -00B6 0 to 60 °C -00B7 -10 to 60 °C -20 to +70 °C 5 – 85 % RH non-condensing humidity Protection class
Functionality	Unlimited ePAD03 Yes ePAD04 No ePAD03 16 KB ePAD04 - ePAD03 Client/Server ePAD04 Client	Dimensions	IP65 (front panel) 149x109 mm (5.86"x4.29") 136x96 mm (5.35"x3.78") 53 mm (2.08")

The product is designed for installation in industrial environments in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001

Noise immunity EN 61000-6-2, 2001

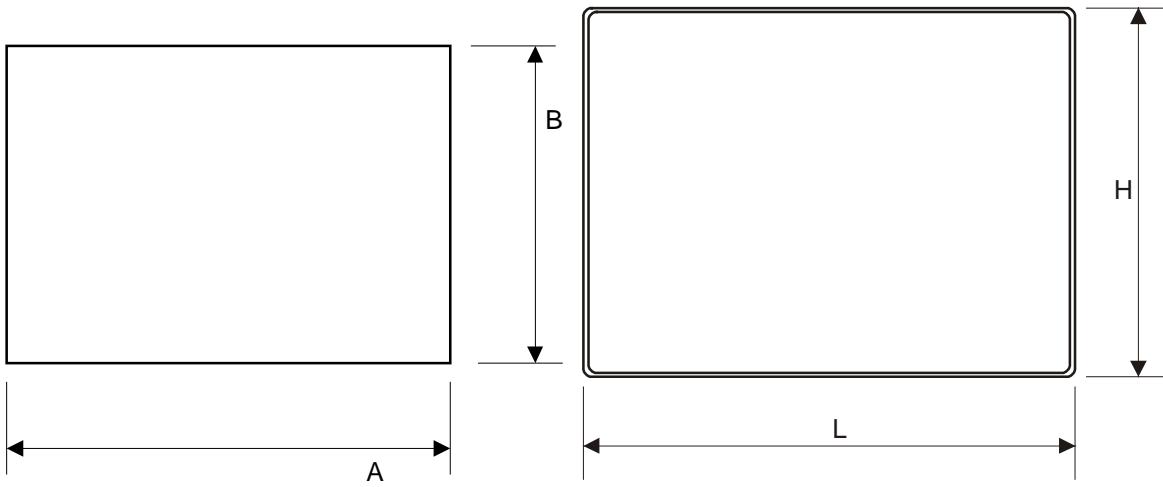


Figure 1 – Cutout and front view

Ordering Information

ePAD03-0046	Compact low-cost HMI with graphic display, recipes and Real Time Clock
ePAD03-00B6	Compact low-cost HMI with graphic display, recipes and Real Time Clock, extended operating temperature range
ePAD03-00B7	Compact low-cost HMI with graphic display, recipes and Real Time Clock, extended operating temperature range
ePAD04-0046	Compact low-cost HMI with graphic display
ePAD04-00B6	Compact low-cost HMI with graphic display, extended operating temperature range
ePAD04-00B7	Compact low-cost HMI with graphic display, extended operating temperature range
R-PRINT2298	Printable legends (5 A4 foils, 8 sets of legend per foil)

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UniOP ePAD05 and ePAD06

Compact low-cost HMI with graphic display. The ePAD05 and ePAD06 panels set a new standard for entry-level HMI products, yet with full numeric data entry capabilities. They are the ideal complement for the successful ePAD03 and ePAD04 products.

These products are also available with extended operating temperature range for use in extreme environmental conditions.

Highlights

- **Monochrome graphic display 120x32 pixels**
- **Downloadable fonts**
- **Scalable text**
- **9 user programmable function keys with slide-in legends**
- **10 user programmable LED indicators**
- **Dual-driver communication**
- **Connection to industrial bus systems and Ethernet with optional modules**
- **IP65 front panel protection**
- **Version with extended operating temperature available**



The ePAD05 and ePAD06 HMI panels are compact low cost products yet extremely rich in functionality. The products support the rich common functionality of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer software
- Dual-driver communication capability,
- Scalable fonts for effective presentation of information.
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, DeviceNet, CANopen, Interbus) and Ethernet
- Display data in numerical, text and bargraph format
- Dynamic graphic objects
- Recipe data storage
- Keyboard macro editor
- Alarms and historical alarm list
- Eight level password protection

The ePAD05 and ePAD06 are the ideal solution to scale-down in size and price applications based on less compact and less performing products.

Technical Data

	ePAD05	ePAD06
Display		Monochrome LCD LED 120x32 70x21 mm 4x20 Yes 256 Software
Backlight		
Graphic resolution		
Active display area		
Rows/columns		
Scalable fonts		
User definable characters		
Contrast regulation		
Memory		512 KB
User memory		-
User memory expansion		
Front panel		
Function keys	9, with slide-in legend	
System keys	10	
Touch screen	-	
User LED's	10	
System LED's	4	
Connections		
PC/Printer port	No	
PLC port	RS-232, RS-422, RS-485	
Aux port (fieldbus and Ethernet connection)	Yes, requires optional module	
Programming speed	9600 ÷ 38400 bps	9600 bps
Functionality		
Number of variables per page	Unlimited	
Dual-driver capability	Yes	-
Recipe memory	16 KB	-
UniNet network	Server/Client	Client
Alarms	1024	256
Event list	256	-
Alarm info page	Yes	
Password	Yes, 8 levels	
Battery	CR2430 (3V 270mA Lithium), non rechargeable, user replaceable. Replace with same type or equivalent compatible with the operating temperature of the product	-
Hardware RTC	Yes	-
Screen saver		
Buzzer		
Power supply voltage	18 ÷ 30 VDC	
Max power consumption	0.25 A at 24 VDC	
Fuse	Overcurrent protection device	

	ePAD05	ePAD06
Weight		1 Kg
Operating temperature		
-0046	0 ÷ +50 °C	
-00B6	0 ÷ +60 °C	
-00B7	-20 ÷ +60 °C	
Storage temperature		-20 ÷ +70 °C
Operating and storage humidity	5 ÷ 85 % RH non-condensing	
Protection class		IP65 (front panel)

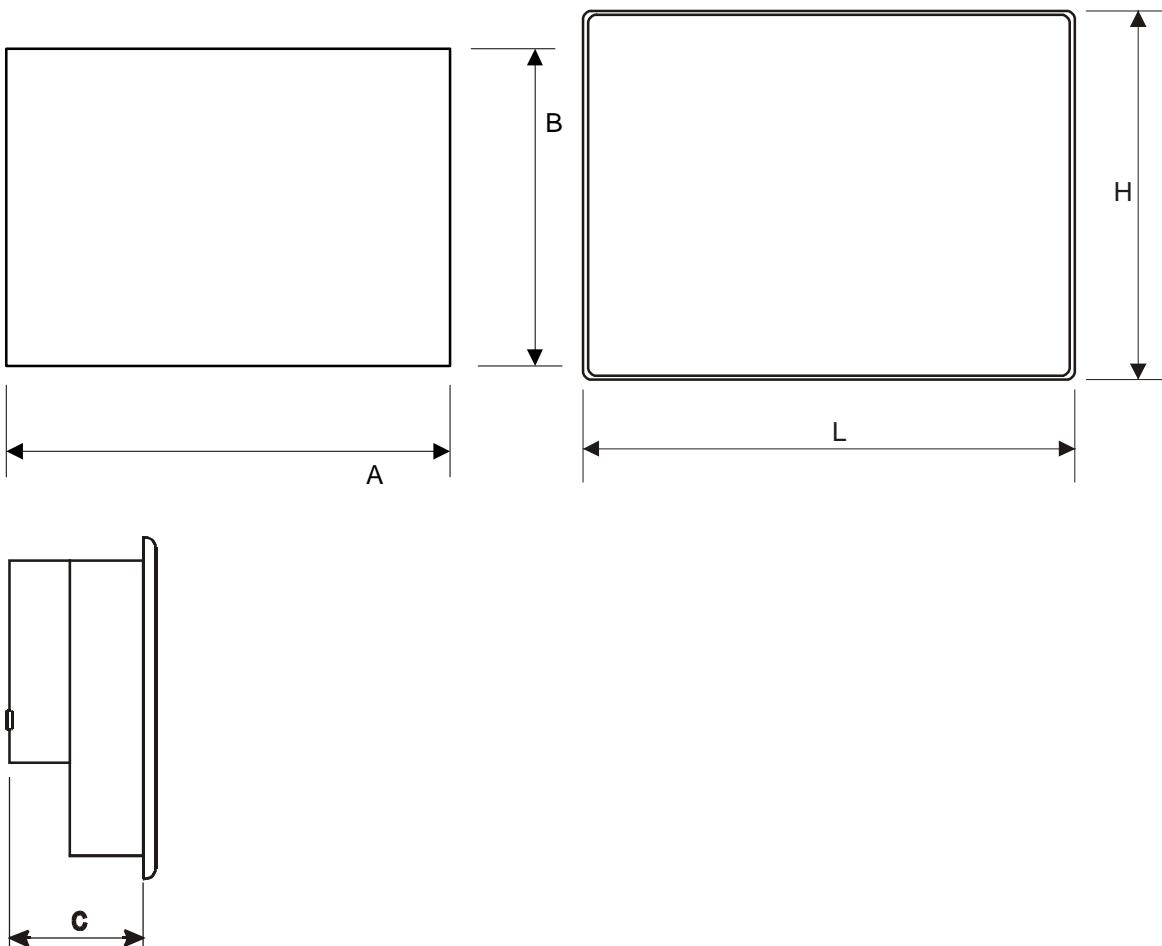
The product is designed for installation in industrial environments in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001

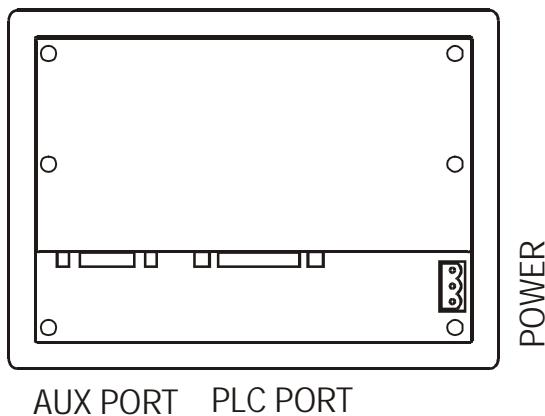
Noise immunity EN 61000-6-2, 2001

Front Dimensions and Cutout

Faceplate LxH	149x109 mm	5.86"x4.29"
Cutout AxB	136x96 mm	5.35"x3.78"
Cutout depth C	53 mm	2.08"
Max panel thickness	5 mm	0.19"



Connections



The product is compatible with all standard TCM and SCM modules.
To access the slot for the modules, remove the rear cover of the product

The backup battery in the ePAD05 is accessible for replacement after removing the rear cover.

The standard programming cable CA114 can be used with this product if a 15-pin female-female gender changer is applied on the PLC Port.

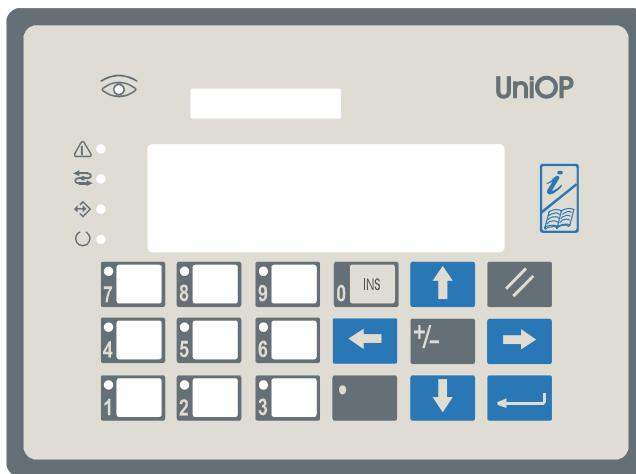
Indicators and keypad

There are several dedicated LED indicators on the front panel of the unit. Functionality is described in the table below.

Elements not listed in the table are reserved for future use.

LED	Color	Status	Meaning
	red	OFF	No hardware problem detected
		BLINK	Battery low
	ON		Hardware fault
	green	OFF	No key pressed and no touch cell active
		ON	Key pressed or touch cell active (visual feedback)
	green	OFF	Hardware fault
		ON	Unit in operation
	green	BLINK	Communication error
		ON	Communication OK
	red	OFF	No alarms
		BLINK	Alarm requires acknowledgment
		ON	Alarm active
	green		May be user controlled as LED number 65 using the Macro Editor. Turns ON when recipe/event backup is being performed.

The layout of the front panel is shown in the figure below.



The RDA mapping of LED indicators is shown in the table below.

RDA Bit	LED on Key
L18	1
L19	2
L20	3
L21	4
L22	5
L23	6
L24	7
L24	8
L26	9

The RDA mapping of all keys is standard.



Tech-note

PN# tn193-4.doc - 4/5/2004 - Ver. 1.04

Function keys associated to keys 1 to 9 have a slide-in legend. Legend strips in laser printable form are available as accessories.



Ordering Information

ePAD05-0046	Compact low-cost HMI with graphic display and Real Time Clock
ePAD05-00B6	Compact low-cost HMI with graphic display and Real Time Clock, extended operating temperature range
ePAD05-00B7	Compact low-cost HMI with graphic display and Real Time Clock, extended operating temperature range
ePAD06-0046	Compact low-cost HMI with graphic display
ePAD06-00B6	Compact low-cost HMI with graphic display, extended operating temperature range
ePAD06-00B7	Compact low-cost HMI with graphic display, extended operating temperature range
R-PRINT3148	Printable legends (5 A4 foils, 10 sets of legends per foil)

Tn193

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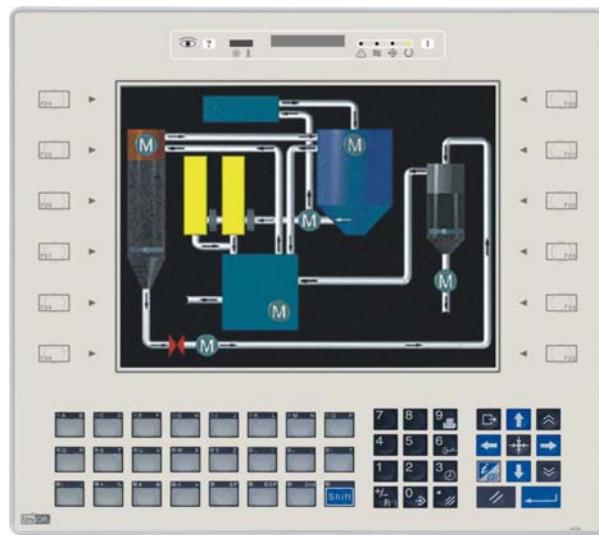
UniOP ePAD30, ePAD32

The ePAD30 and 32 are state-of-the-art HMI devices with a 10.4" graphic display (9.6" for the monochrome version) and a complete keypad. The aluminum bezel offers an appealing look in a rugged and convenient flat design.

The product is also available with a touchscreen option.

Highlights

- Available in TFT color and monochrome
- VGA (640x480 pixels) resolution
- Available also with touchscreen option
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- Compatible with HMIcontrol and local I/O subsystems
- Large memory size (8 MB Flash) with removable media
- IP65 front panel protection



The ePAD HMI panels feature a fully equipped keypad with plenty of function keys. All of the ePAD products support the rich common functionality of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, DeviceNet, Interbus, CANopen) and Ethernet
- Display data in numerical, text and bargraph format
- Dynamic graphic objects
- Data acquisition and trend presentation
- Analog gauges
- Recipe data storage
- Keyboard macro editor
- Alarms and historical alarm list
- Eight level password protection
- Report printing to serial printer

Technical Data

The product is available in three versions that differ only by display type.

	Display	Colors	Backlight	Lifetime
ePAD30, ePAD30T	TFT color LCD	256	CCFL	50.000 h
ePAD32	Monochrome LCD	-	CCFL	25.000 h

Display	640x480 pixels 218x159 mm (10.4"diagonal) / 196x147.6 mm (9.6"diagonal) 30x80 - Yes 256 Software with temperature compensation (only ePAD32)
Memory	8 MB SSFDC memory card max 16 MB SSFDC memory card
Front panel	35 24 Resistive for ePAD30T 24 4
Connections	Yes RS-232, RS-485, RS-422, 20 mA CL Yes, with optional modules
	No 9600 - 38400 bps
Functionality	Unlimited 32 KB Yes Client/Server 1024 1024 Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes 18 - 30 VDC ~ 700 mA at 24 VDC

Fuse	Automatic
Weight	~ 2.5 Kg
Operating temperature	0 to 45 °C
Storage temperature	-20 to +70 °C
Operating and storage humidity	5 - 85 % RH non-condensing
Protection class	IP65 (front panel)

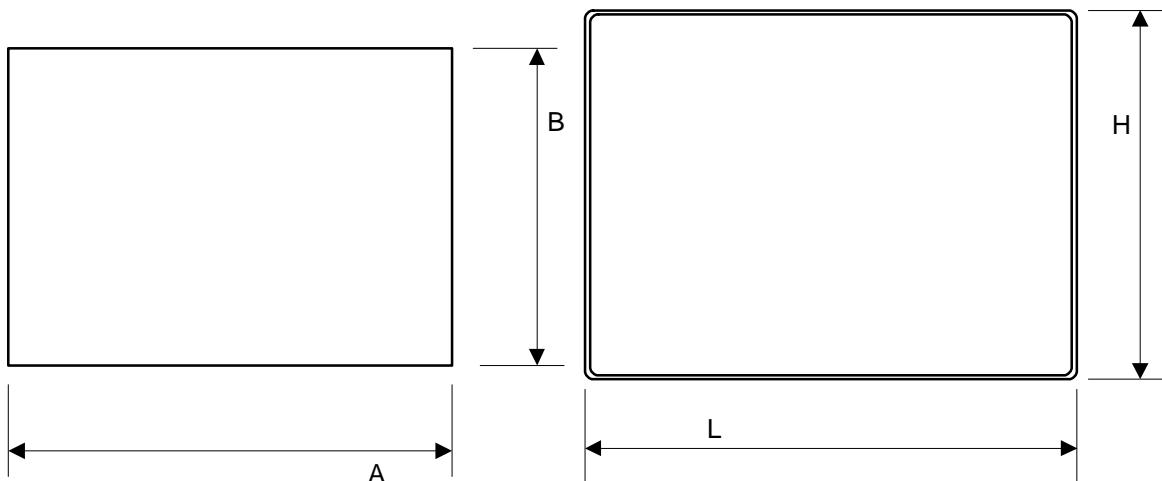
The product is designed for installation in an industrial environment in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001

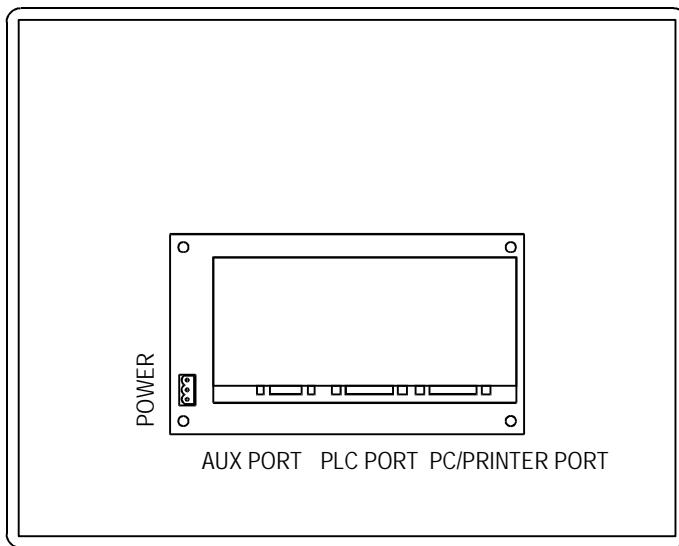
Noise immunity EN 61000-6-2, 2001

Front Dimensions and Cutout

Faceplate LxH	311x276 mm	12.24x10.87"
Cutout AxB	292x257 mm	11.50x10.12"
Cutout depth (version -0050)	91 mm	3.58"
Max panel thickness	5 mm	0.2"

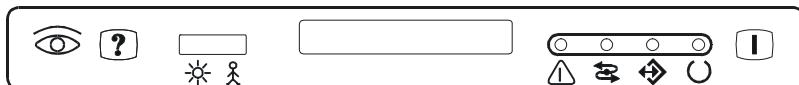


Connections



Indicators and keypad

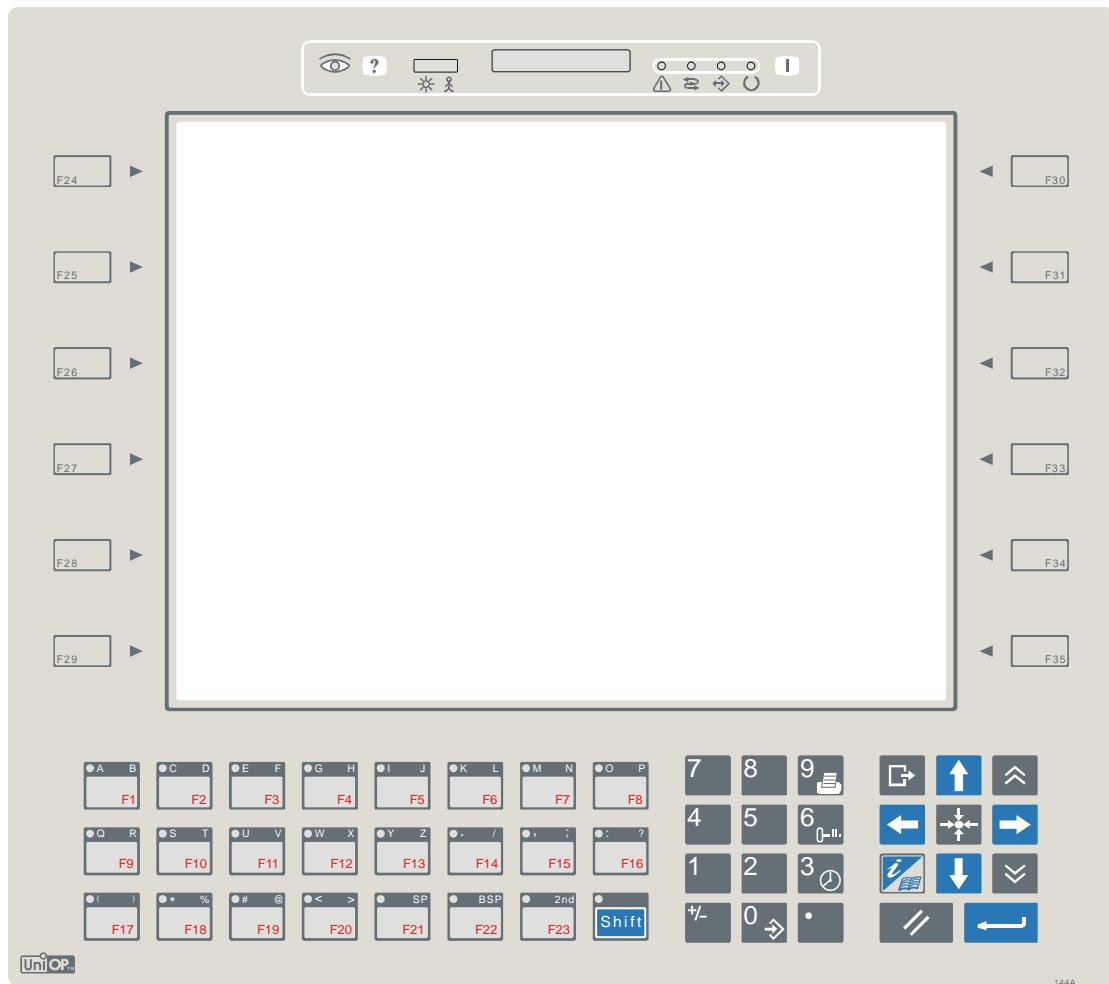
There are several dedicated LED indicators on the front panel of the unit. Functions are described in the table below.



Elements not listed in the table are reserved for future use.

LED	Color	Status	Meaning
	red	OFF	No hardware problem detected
		BLINK	Battery low
		ON	Hardware fault
	green	OFF	No key pressed and no touch cell active
	green	ON	Key pressed or touch cell active (visual feedback)
		OFF	Hardware fault
	ON	Unit in operation	
	green	BLINK	Communication error
		ON	Communication OK
	red	OFF	No alarms
		BLINK	Alarm requires acknowledgment
		ON	Alarm active
	green		May be user controlled as LED number 65 using the Macro Editor. Turns ON when recipe/event backup is being performed.

The layout of the front panel is shown in the figure below. Please note that the labels F1 to F23 are not present in the real product.



The RDA mapping of LED indicators is shown in the table below.

RDA Bit	LED on Key
L1	F1
L2	F2
L3	F3
L4	F4
L5	F5
L6	F6
L7	F7
L8	F8
L9	F9
L10	F10
L11	F11
L12	F12
L13	F13
L14	F14
L15	F15
L16	F16

RDA Bit	LED on Key
L17	F17
L18	F18
L19	F19
L20	F20
L21	F21
L22	F22
L23	F23
L24	
L25	
L26	
L27	
L28	
L29	
L30	
L31	
L32	

The RDA mapping of all keys is standard. Note that not all keys are mapped to an RDA bit.

The service area at the top of the product includes also two buttons.

Button	Description
?	User programmable with the Keyboard Macro Editor. Not available in RDA. Designer 5.08 SP7 or higher is required.
I	Reserved for future use

Function keys from F1 to F23 have a slide-in legend. Legend strips are available as accessories in laser printable format.

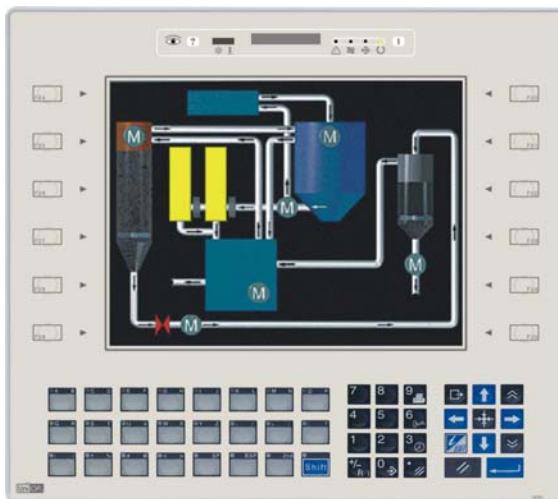
Ordering Information

ePAD30-0050	10.4" TFT color display
ePAD32-0050	9.6" monochrome display
ePAD30T-0050	10.4" TFT color display and resistive touchscreen
R-PRINT2852	Printable legends (5 A4 foils, 5 sets of legends per foil)

UniOP ePAD32B, ePAD33B and ePAD33BT

The ePAD32B, ePAD33B and ePAD33BT are state-of-the-art HMI devices with a VGA graphic display and a complete keypad. The aluminum bezel offers an appealing look in a rugged and convenient flat design.

The product is also available with a touchscreen option.



- 9.6" monochrome and 10.4" TFT color displays
- VGA (640x480 pixel) resolution
- 64K colors (ePAD33B and ePAD33BT)
- Resistive touchscreen (ePAD33BT)
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- Compatible with video input module (ePAD33B and ePAD33BT)
- 32 MB internal user memory

Highlights

The ePAD3xB HMI panels are part of the UniOP family of HMI products. All of the ePAD products support the rich common functionalities of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Vector graphic capabilities including the support of multiple layers and object transparency.
- Video input option (ePAD33B and ePAD33BT)
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Data acquisition and trend presentation. Trend data can be transferred to a host computer using the Ethernet connection.
- Analog gauge objects
- Recipe data storage. Recipe data can be transferred to a host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to a host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data

Display		
Type	ePAD32B monochrome ePAD33B TFT ePAD33BT TFT	Yes Yes ePAD32B No ePAD33B Yes ePAD33BT Yes
Resolution	VGA, 640x480 pixel	
Active display area	ePAD32B 196x147 mm (9.6" diagonal) ePAD33B 218x159 mm (10.4" diagonal) ePAD33BT 218x159 mm (10.4" diagonal)	Data acquisition and trends 32 KB Client/Server
Colors	ePAD32B 8 grey shades ePAD33B 64K ePAD33BT 64K	Alarms 1024
Backlight	ePAD32B CCFL ePAD33B CCFL, 50 Kh ^(note 1) ePAD33BT CCFL, 50 Kh ^(note 1)	Event list 1024
Brightness	ePAD32B 100 cd/m ² typ. ePAD33B 450 cd/m ² typ. ePAD33BT 450 cd/m ² typ.	Password Yes
Dimming	ePAD32B No ePAD33B Yes ePAD33BT Yes	Hardware RTC Yes, battery backed
Memory	32 MB internal Flash Optional removable 32 MB SSFDC memory card	Screen saver Yes
		Buzzer Yes, audible feedback for keyboard and touch screen
Front panel		Battery 3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
Touch screen	Analog resistive (ePAD33BT)	
Function keys	35	
System keys	24	
User LED's	24	
System LED's	4	
Interfaces		
PC/Printer port	Yes	Ratings
PLC port	RS-232, RS-485, RS-422, 20 mA Current Loop	Power supply voltage 24 V DC (18 to 30 V DC)
Aux port (fieldbus and Ethernet)	Yes, with optional modules	Current consumption Max 0.7 A at 24 VDC
DX port (video input)	ePAD32B No ePAD33B Yes ePAD33BT Yes	Fuse Automatic
Serial programming speed	9600 – 38400 bps	Weight Approx 2.3 Kg
		Environmental Conditions
		Operating temperature 0 to 45 °C
		Storage temperature -20 to +70 °C
		Operating and storage humidity 5 – 85 % RH non-condensing
		Protection class IP65 (front panel)
		Dimensions
		Faceplate LxH 311x276 mm (12.24x10.87")
		Cutout AxB 292x257 mm (11.50x10.12")
		Mounting depth (type 0050) 91 mm (3.58")
		Max panel thickness 5 mm (0.2")

Note 1: the lamp lifetime is the typical value for continuous operation at 25°C.

The product is designed for installation in industrial environments in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001

Noise immunity EN 61000-6-2, 2001

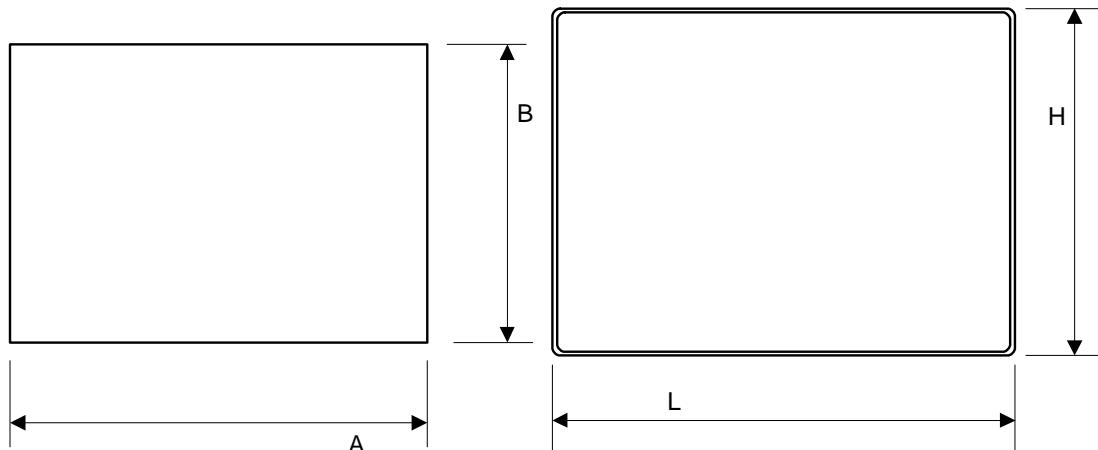


Figure 1 – Cutout and front view

Ordering Information

ePAD32B-0050
ePAD33B-0050
ePAD33BT-0050

9.6" VGA monochrome panel with keypad
10.4" VGA TFT color panel with keypad
10.4" VGA TFT color panel with keypad and touchscreen

Tn221
Ver. 1.00

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UniOP ePALM10

The ePALM10 is a state-of-the-art handheld HMI device with a graphic display and a keypad. The rugged polyamide enclosure offers a high level of shock and environmental resistance making the ePALM the ideal choice for use in the factory floor.



- Graphical display 120x64 pixels (up to 8 lines 20 characters)
- Highly visible transreflective LCD display
- 27-keys keypad with tactile feedback
- Connection to industrial bus systems
- Large memory size (512 KB Flash)
- IP65 protection
- Includes Emergency Stop button
- Includes enabling switches, normal or 3-positions
- Available in version for connection to Ethernet and Profibus DP

Highlights

The ePALM HMI panels are the handheld products of the UniOP family. All of the ePALM products support the rich common functionality of the UniOP operator panels:

- Versions available for connection to Ethernet and Profibus DP. Ethernet version allows connection to field devices as well as programming the HMI from Designer.
- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Transreflective LCD display ensures readability under the most critical light conditions
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Recipe data storage. Recipe data can be transferred to an host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the

available memory. All text information in the application can be exported in Unicode format for easier translation.

- Powerful macro editor to configure keypad operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to an host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

In addition some unique features make the ePALM10 a perfect fit for handheld operation.

- Emergency Stop button. Hardwired.
- Enabling switches. Hardwired.
- High-quality polyurethane cable for mobile applications.

Technical Data			
Display			
Type	Transflective LCD monochrome	Alarms	1024
Resolution	120x64 pixel	Event list	256
Active display area	66x33 mm	Password	Yes
Backlight	LED	Hardware RTC	Yes, battery backed
Dimming	-	Screen saver	-
Contrast	Software	Buzzer	-
Memory		Battery	3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
User memory	512 KB Flash		
User memory expansion	-		
Front panel		Ratings	
Touch screen	-	Power supply voltage	18 - 30 VDC
Function keys	9	Current consumption	~ 300 mA at 24 VDC
System keys	18	Fuse	Automatic
User LED's	20	Weight	~ 0.5 Kg (not including cable)
System LED's	5	Min thickness of cable	7 mm diameter
		Max thickness of cable	11 mm diameter
Interfaces		Environmental Conditions	
PC/Printer port	See below	Operating temperature	0 to 50 °C
PLC port	See below	Storage temperature	-20 to +70 °C
Aux port (fieldbus and Ethernet)	See below	Operating and storage humidity	5 – 85 % RH non-condensing
Serial programming speed	9600 – 38400 bps	Protection class	IP65
Functionality		Dimensions	
Vector graphics	-	A	116 mm (4.56")
Dual driver capability	-	B	86 mm (3.38")
Data acquisition and trends	-	C	102 mm (4.01")
Recipe memory	16 KB	D	239 mm (9.41")
UniNet network	Client/Server		

The product is designed for installation in industrial environments in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001

Noise immunity EN 61000-6-2, 2001

All circuits in this handheld product, including the wiring of the emergency stop button and the enabling switches, must be considered SELV circuits. They will have to be wired in compliance with EN 60950.

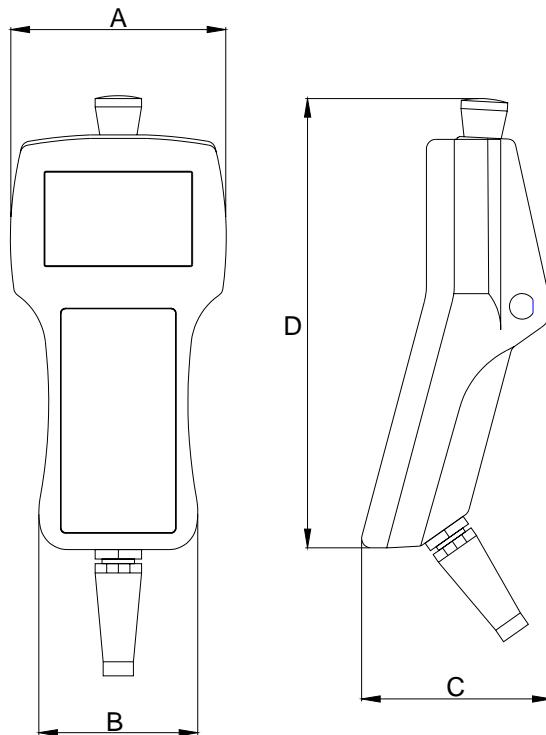


Figure 1 – Cutout and front view

Model	Cable Type/Length	PC/Printer Port	PLC Port	Module	Enabling switches
ePALM10-0061	Serial/5m	Yes	Yes	-	two normal
ePALM10-0062	Serial/10m	Yes	Yes	-	two normal
ePALM10-3P61	Serial/5m	Yes	Yes	-	one 3-position
ePALM10-3P62	Serial/10m	Yes	Yes	-	one 3-position
ePALM10-0066	Ethernet/5m	-	-	SCM11	one 3-position
ePALM10-0068	Ethernet/10m	-	-	SCM11	one 3-position
ePALM10-0069	Profibus DP/5m	Yes	-	TCM08	one 3-position
ePALM10-0067	Profibus DP/10m	Yes	-	TCM08	one 3-position

Ordering Information

ePALM10-0061	ePALM10 handheld HMI with cable for serial connection (length 5 meters)
ePALM10-0062	ePALM10 handheld HMI with cable for serial connection (length 10 meters)
ePALM10-3P61	ePALM10 handheld HMI with cable for serial connection (length 5 meters), one 3-positions enabling switch
ePALM10-3P62	ePALM10 handheld HMI with cable for serial connection (length 10 meters) , one 3-positions enabling switch
ePALM10-0066	ePALM10 handheld HMI with cable for Ethernet connection (length 5 meters), includes SCM11 and one 3-positions enabling switch
ePALM10-0068	ePALM10 handheld HMI with cable for Ethernet connection (length 10 meters), includes SCM11 and one 3-positions enabling switch
ePALM10-0069	ePALM10 handheld HMI with cable for Profibus DP connection (length 5 meters), includes TCM08 and one 3-positions enabling switch
ePALM10-0067	ePALM10 handheld HMI with cable for Profibus DP connection (length 10 meters), includes TCM08 and one 3-positions enabling switch
AHOOK01	Hook set without magnet
AHOOK02	Hook set with magnet

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UniOP eTOP02

The eTOP02 is a compact HMI device with a brilliant TFT display and touchscreen interface. It is the ideal solution for applications where low cost and small size, without compromising performance, are a requirement.



- 3.5" TFT color display
- 256 colors
- 1/4 VGA (320x240 pixel) resolution
- Resistive touchscreen
- 1 MB user memory
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)

Highlights

The eTOP02 panel is a compact and low-cost product. It supports the rich common functionalities of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Advanced graphic capabilities
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Recipe data storage. Recipe data can be transferred to a host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or

transferred to a host computer using the Ethernet connection.

- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data

Display	TFT Type Resolution Active display area Colors Backlight Brightness Dimming	UniNet network Alarms Event list Password Hardware RTC Screen saver Buzzer Battery	32 KB Client/Server 1024 256 Yes Yes, battery backed Yes No 3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
Memory	User memory User memory expansion	1 MB internal Flash -	
Front panel	Touch screen Function keys System keys User LED's System LED's	Analog resistive - - - -	Ratings Power supply voltage Current rating Fuse Weight
Interfaces	PC/Printer port PLC port Aux port (fieldbus and Ethernet) DX port (video input) Serial programming speed	- RS-232, RS-485, RS-422 Yes, with optional modules No 9600 – 38400 bps	Environmental Conditions Operating temperature Storage temperature Operating and storage humidity Protection class
Functionality	Vector graphics Dual driver capability Video input Data acquisition and trends	No Yes No No	Dimensions Faceplate LxH Cutout AxB Mounting depth

The product is designed for installation in industrial environments in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001

Noise immunity EN 61000-6-2, 2001

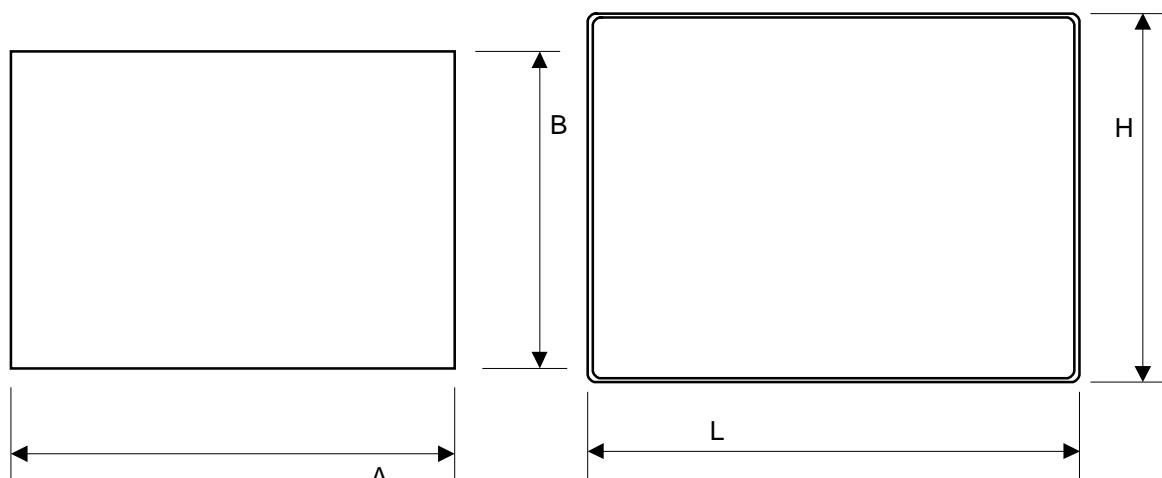


Figure 1 – Cutout and front view

Ordering Information

eTOP02-0046
PROT-07

3.5" 1/4 VGA TFT color panel with touchscreen
Disposable protection film for 3.5"/3.8" eTOP touch panels (10 pieces)

Tn225

Ver. 1.00

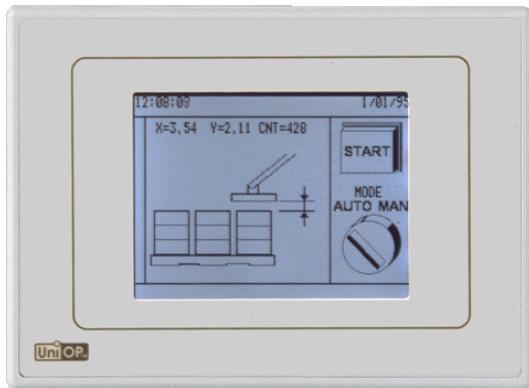
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UniOP eTOP03

The eTOP03 is a low-cost HMI device with touchscreen interface and 3.8" monochrome graphic display. The very compact size and the 1/4 VGA resolution make it the optimal solution for a tight budget without compromising quality and performance. Portrait mode (vertical mode) operation enhances the flexibility and makes the product suitable to even more application areas.



- 3.8" monochrome display with white LED backlight
- 1/4 VGA (320x240 pixel) resolution
- Portrait mode operation
- Resistive touchscreen
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- 512 KB user memory

Highlights

The eTOP HMI panels are part of the UniOP family of touchscreen products. All of the eTOP products support the rich common functionality of the UniOP operator panels. The eTOP03 is mechanically compatible with the eTOP02 and with the popular ePAD03-ePAD06 panels.

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Recipe data storage. Recipe data can be transferred to a host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to a host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data

Display	Monochrome LCD Resolution 1/4 VGA, 320x240 pixel Active display area 3.8" diagonal (77x58 mm) Colors - Backlight White LED Brightness 60 cd/m ² typ. Dimming No Contrast regulation Software	Recipe memory 32 KB UniNet network Client/Server Alarms 1024 Event list 256 Password Yes Hardware RTC Yes, battery backed Screen saver Yes Buzzer - Battery 3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
Memory	User memory 512 KB Flash User memory expansion -	
Front panel	Touch screen Analog resistive Function keys - System keys - User LED's - System LED's -	Ratings Power supply voltage 24 V DC (18 to 30 V DC) Current consumption Max 0.4 A at 24 VDC Fuse Automatic Weight Approx 1 Kg
Interfaces	PC/Printer port - PLC port RS-232, RS-485, RS-422 Aux port (fieldbus and Ethernet) Yes, with optional modules DX port (video input) No Serial programming speed 9600 – 38400 bps	Environmental Conditions Operating temperature 0 to 50 °C Storage temperature -20 to +70 °C Operating and storage humidity 5 – 85 % RH non-condensing Protection class IP65 (front panel)
Functionality	Vector graphics No Dual driver capability Yes Video input No Data acquisition and trends No	Dimensions Faceplate LxH 149x109 mm (5.86x4.29") Cut-out AxB 136x96 mm (5.35x3.78") Mounting depth (type 0046) 61 mm (2.40")

The product is designed for installation in industrial environments in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001

Noise immunity EN 61000-6-2, 2001

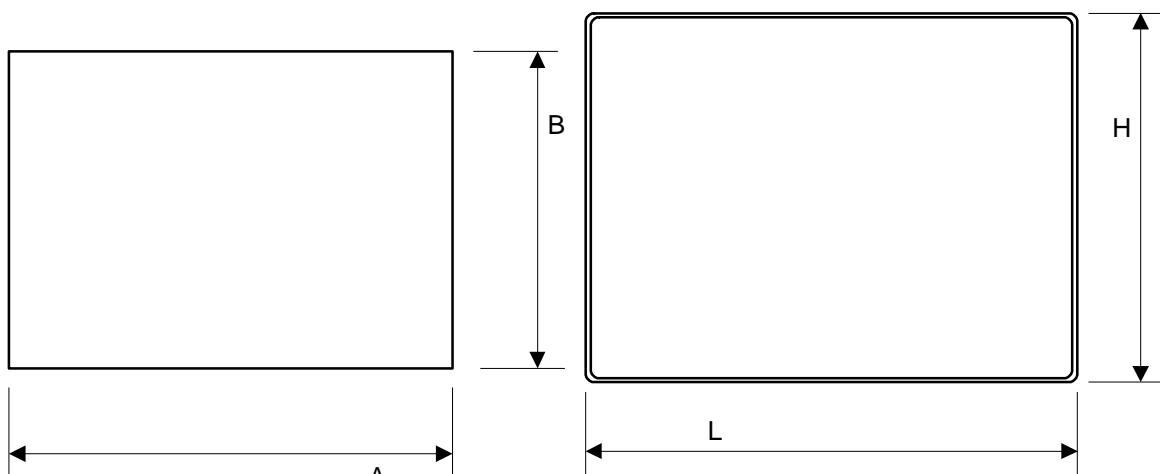


Figure 1 – Cut-out and front view

Ordering Information

eTOP03-0046
PROT-07

3.8" 1/4 VGA monochrome graphic HMI with touchscreen
Disposable protection film for 3.5"/3.8" eTOP touch panels (10 pieces)

Tn184
Ver. 1.04

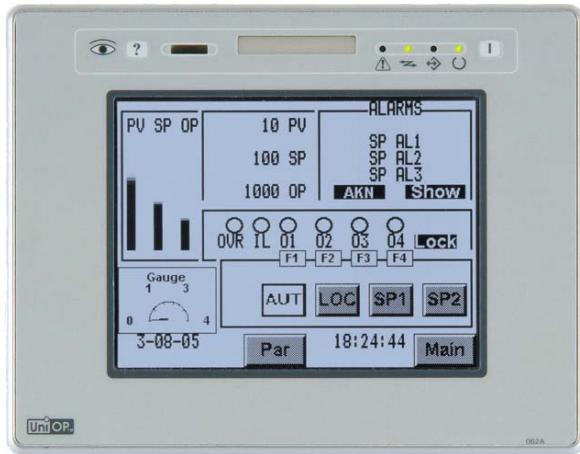
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UniOP eTOP05

The eTOP05 is a low-cost HMI device with touchscreen interface and 5.6" monochrome graphic display. The compact size and the 1/4 VGA resolution make it the optimal solution for a tight budget compromising quality and performance.



- 5.6" monochrome display with white LED backlight
- 1/4 VGA (320x240 pixel) resolution
- Resistive touchscreen
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- 32 MB user memory

Highlights

The eTOP HMI panels are part of the UniOP family of touchscreen products. All of the eTOP products support the rich common functionalities of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Data acquisition and trend presentation. Trend data can be transferred to an host computer using the Ethernet connection.
- Analog gauge objects
- Recipe data storage. Recipe data can be transferred to an host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to an host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data

Display			
Type	Monochrome LCD	Recipe memory	32 KB
Resolution	1/4 VGA, 320x240 pixel	UniNet network	Client/Server
Active display area	121x91 mm (5.6" diagonal)	Alarms	1024
Colors	-	Event list	1024
Backlight	White LED	Password	Yes
Brightness	60 cd/m ² typ.	Hardware RTC	Yes, battery backed
Dimming	No	Screen saver	Yes
Contrast regulation	Software	Buzzer	Yes, audible feedback for touch screen
Memory		Battery	3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
User memory	32 MB Flash Card		
User memory expansion	-		
Front panel		Ratings	
Touch screen	Analog resistive	Power supply voltage	24 V DC (18 to 30 V DC)
Function keys	1	Current consumption	Max 0.6 A at 24 VDC
System keys	-	Fuse	Automatic
User LED's	1	Weight	Approx 1.4 Kg
System LED's	4		
Interfaces		Environmental Conditions	
PC/Printer port	Yes	Operating temperature	0 to 50 °C
PLC port	RS-232, RS-485, RS-422, 20 mA Current Loop	Storage temperature	-20 to +70 °C
Aux port (fieldbus and Ethernet)	Yes, with optional modules	Operating and storage humidity	5 – 85 % RH non-condensing
DX port (video input)	No	Protection class	IP65 (front panel)
Serial programming speed	9600 – 38400 bps		
Functionality		Dimensions	
Vector graphics	No	Faceplate LxH	187x147 mm (7.36x5.79")
Dual driver capability	Yes	Cutout AxB	176x136 mm (6.93x5.35 ")
Video input	No	Mounting depth (type 0045)	79 mm (3.12")
Data acquisition and trends	Yes		

The product is designed for installation in industrial environments in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001

Noise immunity EN 61000-6-2, 2001

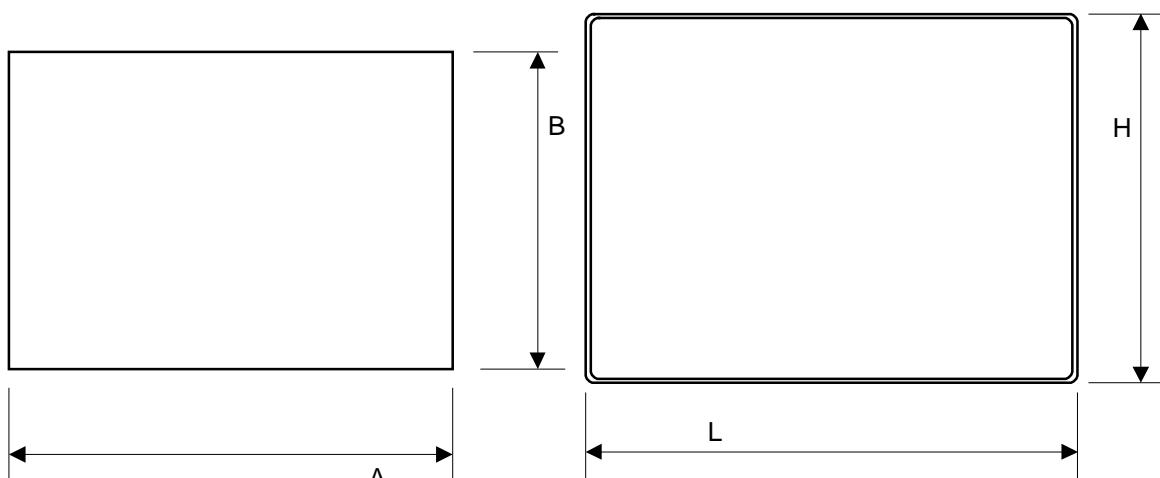


Figure 1 – Cutout and front view

Ordering Information

eTOP05-0045
PROT-03

5.6" 1/4 VGA monochrome graphic HMI with touchscreen
Disposable protection foil for 5.6" eTOP touch panels (10 pieces)

Tn170

Ver. 1.05

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UniOP eTOP10B and eTOP11EB

The eTOP10B and eTOP11EB are state-of-the-art HMI devices with touchscreen interface and 5.6" TFT and STN color graphic displays. Support for 64K colors in the brilliant TFT display will increase the realism of the images. The compact size and the 1/4 VGA resolution make them an attractive solution where space is a premium without compromising performance.



- 5.6" TFT and STN color displays
- 1/4 VGA (320x240 pixel) resolution
- 64K colors (eTOP10B only)
- Resistive touchscreen
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- Compatible with video input module (eTOP10B only)
- 32 MB internal user memory

Highlights

The eTOP HMI panels are part of the UniOP family of touchscreen products. All of the eTOP products support the rich common functionalities of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Vector graphic capabilities including the support of multiple layers and object transparency.
- Video input option (eTOP10B only)
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Data acquisition and trend presentation. Trend data can be transferred to an host computer using the Ethernet connection.
- Analog gauge objects
- Recipe data storage. Recipe data can be transferred to an host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to an host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data	
Display	
Type	eTOP10B TFT eTOP11EB STN
Resolution	1/4 VGA, 320x240 pixel
Active display area	121x91 mm (5.6" diagonal)
Colors	eTOP10B 64K eTOP11EB 256
Backlight	eTOP10B CCFL, 50K h ^(note 1) eTOP11EB CCFL, 75K h ^(note 1)
Brightness	eTOP10B 330 cd/m ² typ. eTOP11EB 330 cd/m ² typ.
Dimming	eTOP10B Yes eTOP11EB No
Memory	
User memory	32 MB internal Flash
User memory expansion	Optional removable 32 MB SSFDC memory card
Front panel	
Touch screen	Analog resistive
Function keys	1
System keys	-
User LED's	1
System LED's	4
Interfaces	
PC/Printer port	Yes
PLC port	RS-232, RS-485, RS-422, 20 mA Current Loop
Aux port (fieldbus and Ethernet)	Yes, with optional modules
DX port (video input)	eTOP10B Yes eTOP11EB No
Serial programming speed	9600 – 38400 bps
Functionality	
Vector graphics	Yes
Dual driver capability	Yes
Video input	eTOP10B Yes eTOP11EB No
Data acquisition and trends	Yes
Recipe memory	32 KB
UniNet network	Client/Server
Alarms	1024
Event list	1024
Password	Yes
Hardware RTC	Yes, battery backed
Screen saver	Yes
Buzzer	Yes, audible feedback for touch screen
Battery	3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
Ratings	
Power supply voltage	24 V DC (18 to 30 V DC)
Current consumption	Max 0.6 A at 24 VDC
Fuse	Automatic
Weight	Approx 1.4 Kg
Environmental Conditions	
Operating temperature	0 to 45 °C
Storage temperature	-20 to +70 °C
Operating and storage humidity	5 – 85 % RH non-condensing
Protection class	IP65 (front panel)
Dimensions	
Faceplate LxH	187x147 mm (7.36x5.79")
Cutout AxB	176x136 mm (6.93x5.35")
Mounting depth (type 0050)	91 mm (3.58")
Max panel thickness	5 mm (0.2")

Note 1: the lamp lifetime is the typical value for continuous operation at 25°C.

The product is designed for installation in industrial environments in compliance with the regulations:
 Emitted interference EN 61000-6-4, 2001
 Noise immunity EN 61000-6-2, 2001

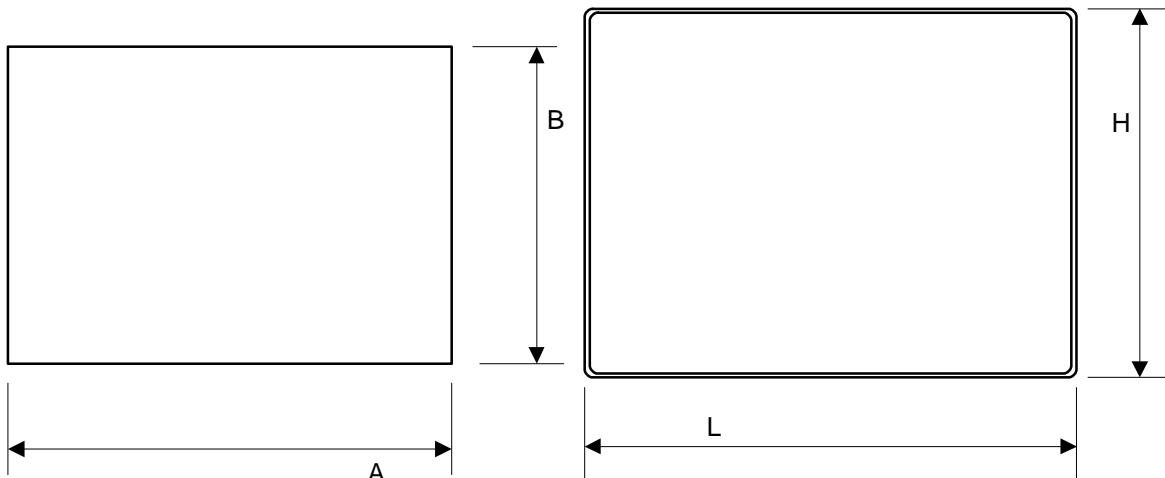


Figure 1 – Cutout and front view

Ordering Information

eTOP10B-0050
eTOP11EB-0050

5.6" 1/4 VGA TFT color panel with touchscreen
5.6" 1/4 VGA STN color panel with touchscreen

Tn215
Ver. 1.00

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UniOP eTOP11

The eTOP11 is a low-cost HMI device with touchscreen interface and 5.6" STN graphic display. The compact size and the 1/4 VGA resolution make it an attractive solution where space is a premium without compromising performance.



- 5.6" STN color display
- 1/4 VGA (320x240 pixel) resolution
- Resistive touchscreen
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- 32 MB user memory
- Compatible with local I/O

Highlights

The eTOP HMI panels are part of the UniOP family of touchscreen products. All of the eTOP products support the rich common functionalities of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Data acquisition and trend presentation. Trend data can be transferred to an host computer using the Ethernet connection.
- Analog gauge objects
- Recipe data storage. Recipe data can be transferred to an host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to an host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data	
Display	
Type	STN
Resolution	1/4 VGA, 320x240 pixel
Active display area	121x91 mm (5.6" diagonal)
Colors	16
Backlight	CCFL, 75K h ^(note 1)
Brightness	330 cd/m ² typ.
Dimming	No
Contrast regulation	Software
Memory	
User memory	32 MB Flash Card
User memory expansion	-
Front panel	
Touch screen	Analog resistive
Function keys	1
System keys	-
User LED's	1
System LED's	4
Interfaces	
PC/Printer port	Yes
PLC port	RS-232, RS-485, RS-422, 20 mA Current Loop
Aux port (fieldbus and Ethernet)	Yes, with optional modules
DX port (video input)	No
Serial programming speed	9600 – 38400 bps
Functionality	
Vector graphics	No
Dual driver capability	Yes
Video input	No
Data acquisition and trends	Yes
Recipe memory	32 KB
UniNet network	Client/Server
Alarms	1024
Event list	1024
Password	Yes
Hardware RTC	Yes, battery backed
Screen saver	Yes
Buzzer	Yes, audible feedback for touch screen
Battery	3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
Ratings	
Power supply voltage	24 V DC (18 to 30 V DC)
Current consumption	Max 0.6 A at 24 VDC
Fuse	Automatic
Weight	Approx 1.4 Kg
Environmental Conditions	
Operating temperature	0 to 45 °C
Storage temperature	-20 to +70 °C
Operating and storage humidity	5 – 85 % RH non-condensing
Protection class	IP65 (front panel)
Dimensions	
Faceplate LxH	187x147 mm (7.36x5.79")
Cutout AxB	176x136 mm (6.93x5.35 ")
Mounting depth (type 0050)	91 mm (3.58")

Note 1: the lamp lifetime is the typical value for continuous operation at 25°C.

The product is designed for installation in industrial environments in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001

Noise immunity EN 61000-6-2, 2001

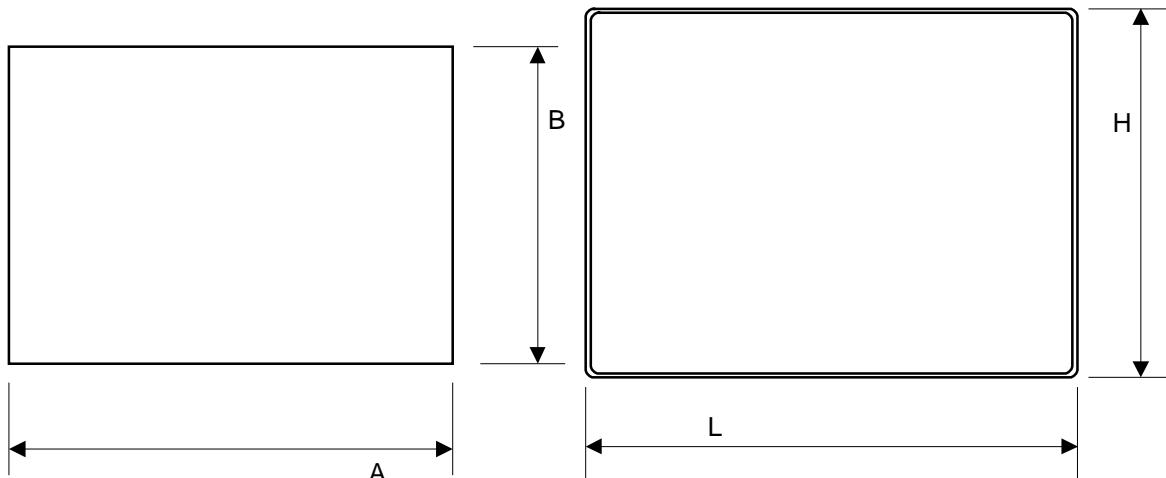


Figure 1 – Cutout and front view

Ordering Information

eTOP11-0050
PROT-03

5.6" 1/4 VGA STN color panel with touchscreen
Disposable protection foil for 5.6" eTOP touch panels (10 pieces)

Tn235
Ver. 1.00

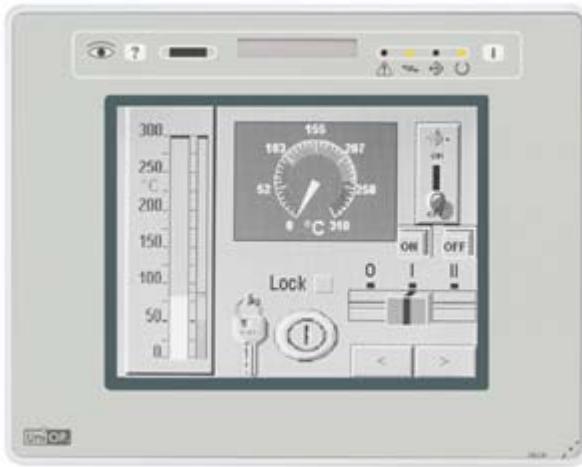
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UniOP eTOP12

The eTOP12 are state-of-the-art HMI device with touchscreen interface and a brilliant 5.6" monochrome graphic display. The compact size and the 1/4 VGA resolution make them an attractive solution where space is a premium without compromising performance.



- 5.6" monochrome display
- 1/4 VGA (320x240 pixel) resolution
- Resistive touchscreen
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- 32 MB user memory
- Compatible with local I/O

Highlights

The eTOP HMI panels are part of the UniOP family of touchscreen products. All of the eTOP products support the rich common functionalities of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Data acquisition and trend presentation. Trend data can be transferred to an host computer using the Ethernet connection.
- Analog gauge objects
- Recipe data storage. Recipe data can be transferred to an host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to an host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data	
Display	
Type	Monochrome
Resolution	1/4 VGA, 320x240 pixel
Active display area	121x91 mm (5.6" diagonal)
Colors	Monochrome
Backlight	CCFL, 25K h ^(note 1)
Brightness	200 cd/m ² typ.
Dimming	No
Contrast regulation	Software
Memory	
User memory	32 MB Flash Card
User memory expansion	-
Front panel	
Touch screen	Analog resistive
Function keys	1
System keys	-
User LED's	1
System LED's	4
Interfaces	
PC/Printer port	Yes
PLC port	RS-232, RS-485, RS-422, 20 mA Current Loop
Aux port (fieldbus and Ethernet)	Yes, with optional modules
DX port (video input)	No
Serial programming speed	9600 – 38400 bps
Functionality	
Vector graphics	No
Dual driver capability	Yes
Video input	No
Data acquisition and trends	Yes
Recipe memory	32 KB
UniNet network	Client/Server
Alarms	1024
Event list	1024
Password	Yes
Hardware RTC	Yes, battery backed
Screen saver	Yes
Buzzer	Yes, audible feedback for touch screen
Battery	3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
Ratings	
Power supply voltage	24 V DC (18 to 30 V DC)
Current consumption	Max 0.6 A at 24 VDC
Fuse	Automatic
Weight	Approx 1.4 Kg
Environmental Conditions	
Operating temperature	0 to 45 °C
Storage temperature	-20 to +70 °C
Operating and storage humidity	5 – 85 % RH non-condensing
Protection class	IP65 (front panel)
Dimensions	
Faceplate LxH	187x147 mm (7.36x5.79")
Cutout AxB	176x136 mm (6.93x5.35 ")
Mounting depth (type 0050)	91 mm (3.58")

Note 1: the lamp lifetime is the typical value for continuous operation at 25°C.

The product is designed for installation in industrial environments in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001

Noise immunity EN 61000-6-2, 2001

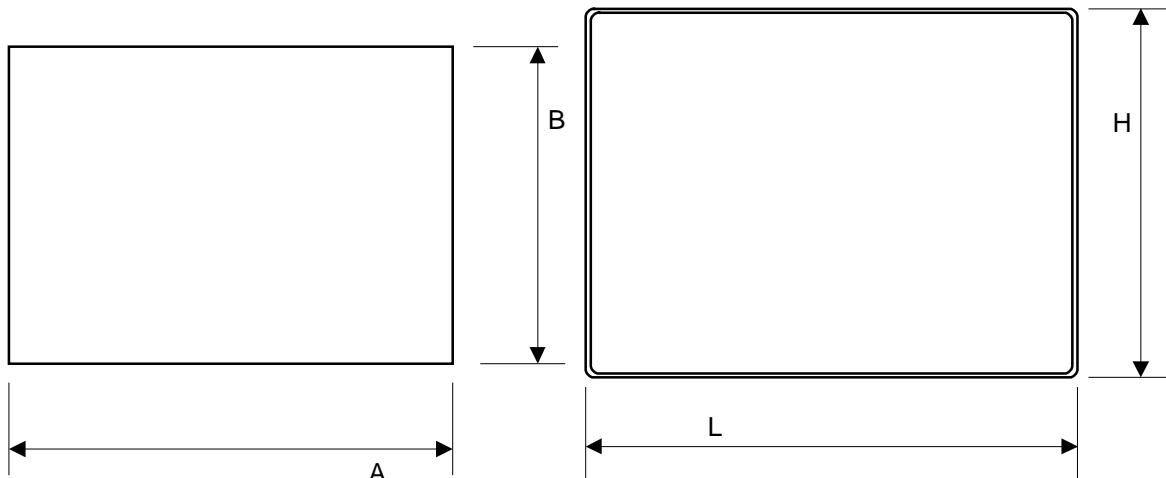


Figure 1 – Cutout and front view

Ordering Information

eTOP12-0050
PROT-03

5.6" 1/4 VGA Monochrome panel with touchscreen
Disposable protection foil for 5.6" eTOP touch panels (10 pieces)

Tn236
Ver. 1.00

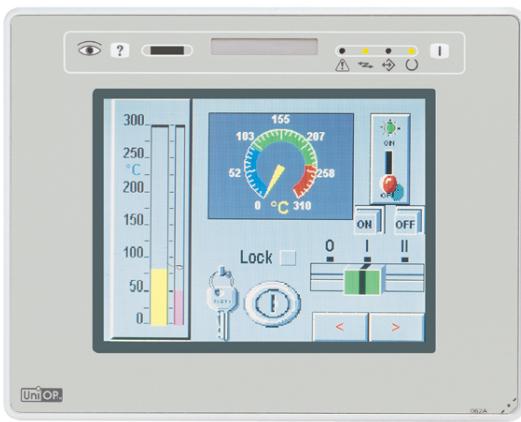
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UniOP eTOP19B

The eTOP19B is a state-of-the-art HMI with touchscreen interface and a 5.6" Enhanced TFT color display specifically designed for use under extreme illumination conditions. The enhancement technologies implemented in the display make this panel readable when normal TFT displays would not be usable. Support for 64K colors in the brilliant TFT display will increase the realism of the images. The wide operating temperature range extends even further the applicability of this product. The characteristics of touchscreen and display make this unit the ideal choice for high-end HMI applications in critical environments.



- 5.6" enhanced TFT color display
- 1/4 VGA (640x480 pixel) resolution
- 64K colors
- Resistive touchscreen
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- Compatible with video input module
- 32 MB internal user memory
- Extended operating temperature range

Highlights

The eTOP HMI panels are part of the UniOP family of touchscreen products. All of the eTOP products support the rich common functionalities of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Vector graphic capabilities including the support of multiple layers and object transparency.
- Video input option.
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Data acquisition and trend presentation. Trend data can be transferred to a host computer using the Ethernet connection.
- Analog gauge objects
- Recipe data storage. Recipe data can be transferred to a host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to a host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data			
Display	TFT 1/4 VGA, 320x240 pixel 121x91 mm (5.6" diagonal) 64K CCFL, 25000 h ^(note 1) 500 cd/m ² typ. Yes	Recipe memory UniNet network Alarms Event list Password Hardware RTC Screen saver Buzzer	32 KB Client/Server 1024 1024 Yes Yes, battery backed Yes Yes, audible feedback for touch screen 3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
Memory	User memory User memory expansion	32 MB internal Flash Optional removable 32 MB SSFDC memory card	
Front panel	Touch screen Function keys System keys User LED's System LED's	Analog resistive 1 - 1 4	
Interfaces	PC/Printer port PLC port Aux port (fieldbus and Ethernet) DX port (video input) Serial programming speed	Yes RS-232, RS-485, RS-422, 20 mA Current Loop Yes, with optional modules Yes 9600 – 38400 bps	Ratings Power supply voltage Current consumption Fuse Weight
			24 V DC (18 to 30 V DC) Max 0.6 A at 24 VDC Automatic Approx 1.4 Kg
			Environmental Conditions Operating temperature Storage temperature Operating and storage humidity Protection class
			-10 to 55 °C -20 to +70 °C 5 – 85 % RH non-condensing IP65 (front panel)
Functionality	Vector graphics Dual driver capability Video input Data acquisition and trends	Yes Yes Yes Yes	Dimensions Faceplate LxH Cutout AxB Mounting depth (type 0050) Max panel thickness
			187x147 mm (7.36x5.79") 176x136 mm (6.93x5.35 ") 91 mm (3.58") 5 mm (0.2")

Note 1: the lamp lifetime is the typical value for continuous operation at 25°C.

The product is designed for installation in industrial environments in compliance with the regulations:
 Emitted interference EN 61000-6-4, 2001
 Noise immunity EN 61000-6-2, 2001

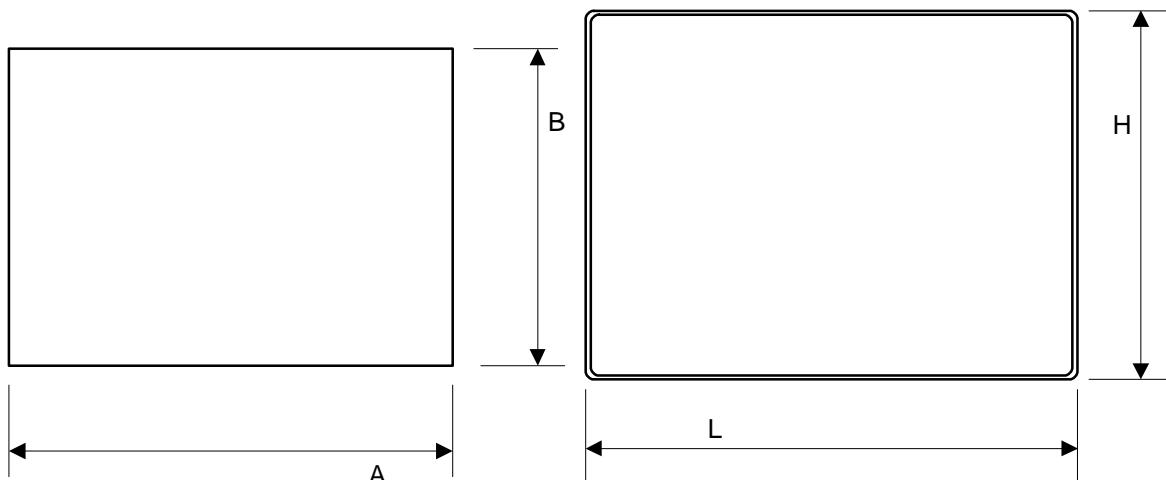


Figure 1 – Cutout and front view

Ordering Information

eTOP19B-0050

5.6" 1/4 VGA enhanced TFT color panel with touchscreen

Tn204
Ver. 1.00

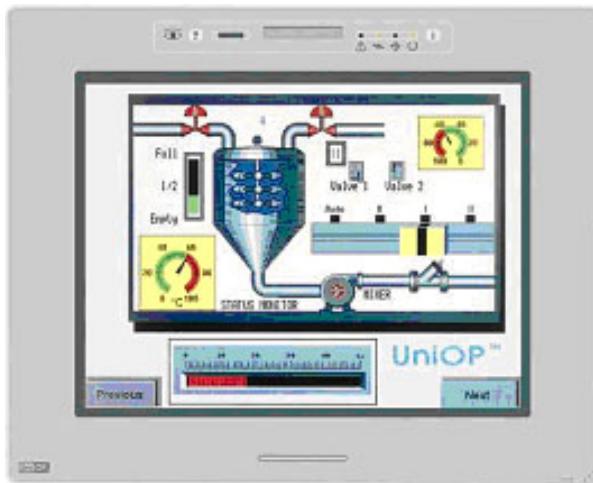
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UniOP eTOP20B

The eTOP20B is a state-of-the-art HMI device with touchscreen interface and 7.5" TFT color graphic display. Support for 64K colors in the brilliant TFT display improves the realism of the images. The compact size and the VGA resolution make them an attractive solution where space is a premium without compromising performance.



- 7.5" TFT color display
- VGA (640x480 pixel) resolution
- 64K colors
- Resistive touchscreen
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- Compatible with video input module
- 32 MB internal user memory

Highlights

The eTOP HMI panels are part of the UniOP family of touchscreen products. All of the eTOP products support the rich common functionalities of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Vector graphic capabilities including the support of multiple layers and object transparency.
- Video input option
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Data acquisition and trend presentation. Trend data can be transferred to an host computer using the Ethernet connection.
- Analog gauge objects
- Recipe data storage. Recipe data can be transferred to an host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to an host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data			
Display	TFT VGA, 640x480 pixel 154x116 mm (7.5"diagonal) 64K CCFL, 50000 h ^(note 1) 330 cd/m ² typ. Yes	Recipe memory UniNet network Alarms Event list Password Hardware RTC Screen saver Buzzer	32 KB Client/Server 1024 1024 Yes Yes, battery backed Yes Yes, audible feedback for touch screen 3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
Memory	User memory User memory expansion	32 MB internal Flash Optional removable 32 MB SSFDC memory card	
Front panel	Touch screen Function keys System keys User LED's System LED's	Analog resistive 1 - 1 4	
Interfaces	PC/Printer port PLC port Aux port (fieldbus and Ethernet) DX port (video input) Serial programming speed	Yes RS-232, RS-485, RS-422, 20 mA Current Loop Yes, with optional modules Yes 9600 – 38400 bps	Ratings Power supply voltage Current consumption Fuse Weight
			18 - 30 VDC Max 0.7 A at 24 VDC Automatic Approx 1.6 Kg
			Environmental Conditions Operating temperature Storage temperature Operating and storage humidity Protection class
			0 to 45 °C -20 to +70 °C 5 – 85 % RH non-condensing IP65 (front panel)
Functionality	Vector graphics Dual driver capability Video input Data acquisition and trends	Yes Yes Yes Yes	Dimensions Faceplate LxH Cutout AxB Mounting depth (type 0045)
			232x187 mm (9.14x7.63") 221x176 mm (8.70x6.93") 71 mm (2.80")

Note 1: the lamp lifetime is the typical value for continuous operation at 25°C.

The product is designed for installation in industrial environments in compliance with the regulations:
 Emitted interference EN 61000-6-4, 2001
 Noise immunity EN 61000-6-2, 2001

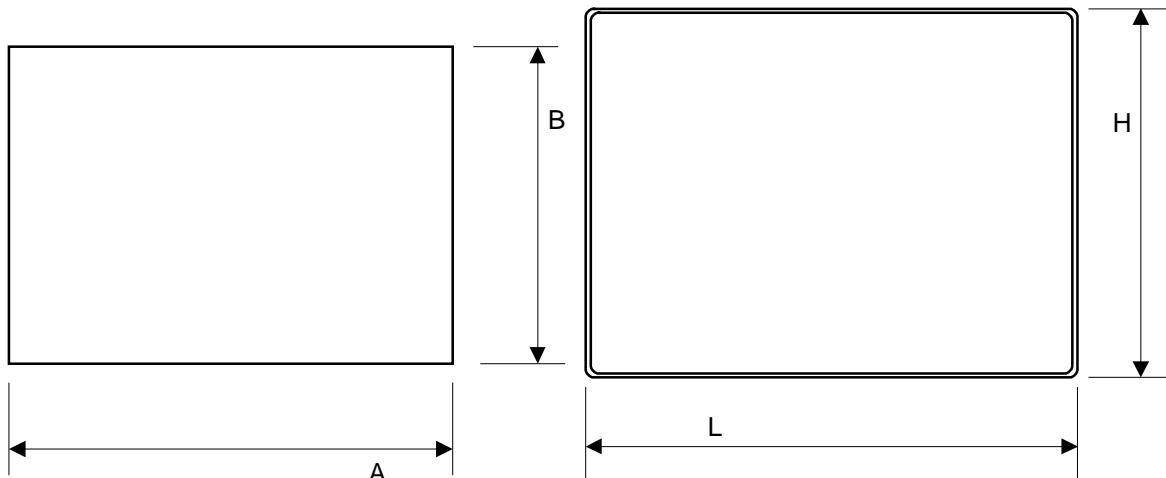


Figure 1 – Cutout and front view

Ordering Information

eTOP20B-0045
PROT-09

7.5" VGA TFT color panel with touchscreen
Disposable protection foil for 7.5" eTOP touch panels (10 pieces)

Tn203
Ver. 1.01

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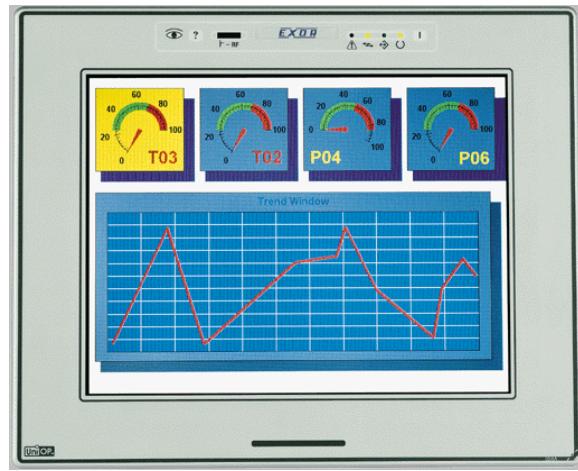
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UniOP eTOP30, eTOP32

The eTOP30, and 32 are state-of-the-art HMI devices with a touch screen interface and a 10.4" graphic display (9.6" for monochrome version). The novel aluminum bezel offers a rugged and convenient flat design and an appealing look.

Highlights

- **10.4" diagonal graphic color display**
- **9.6" diagonal graphic monochrome LCD display**
- **Available in TFT color, and monochrome**
- **VGA (640x480 pixels) resolution**
- **Shows up to 30 rows, 80 characters of information**
- **Resistive touch screen**
- **Connection to industrial bus systems and Ethernet (requires optional plug-in modules)**
- **Compatible with HMIcontrol and local I/O subsystems**
- **Large memory size (8 MB Flash) on removable media**
- **IP65 front panel protection**
- **Programmable with UniOP Designer version 5.08**



The eTOP HMI panels are part of the eTOUCH family of touch screen products. All of the eTOUCH products support the rich common functionality of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, DeviceNet, Interbus, CANopen) and Ethernet
- Display data in numerical, text and bargraph format
- Dynamic graphic objects
- Data acquisition and trend presentation
- Analog gauges
- Recipe data storage
- Keyboard/Touch macro editor
- Alarms and historical alarm list
- Eight level password protection
- Report printing to serial printer

Technical data

The product is available in two versions that differ only by display type.

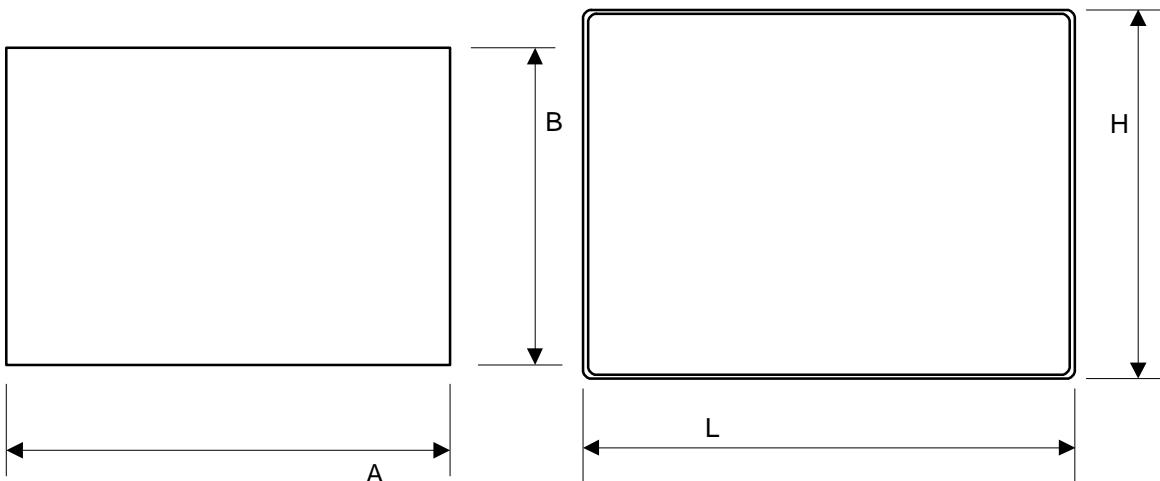
	Display	Colors	Backlight	Lifetime
eTOP30	TFT color LCD	256	CCFL	
eTOP32	Monochrome LCD	-	CCFL	
Display				
Graphic resolution	640x480 pixels			
Active display area	218x159 mm (10.4"diagonal) / 196x147.6 mm (9.6"diagonal)			
Rows/columns	30x80			
Character height	-			
Scalable fonts	Yes			
User definable characters	256			
Contrast regulation	Software with temperature compensation (only eTOP32)			
Memory				
User memory	8 MB SSFDC memory card			
User memory expansion	-			
Front panel				
Function keys	-			
System keys	-			
Touch screen	Resistive (guaranteed 3 M operations)			
User LED's	-			
System LED's	5			
Connections				
PC/Printer port	Yes			
PLC port	RS-232, RS-485, RS-422, 20 mA CL			
Aux port (fieldbus and Ethernet connection)	Yes, with optional modules			
External keyboard port	No			
Programming speed	9600 - 38400 bps			
Functionality				
Page size	-			
Number of variables per page	Unlimited			
Recipe memory	32 KB			
UniNet network	Client/Server			
Alarms	1024			
Event list	1024			
Alarm info page	Yes			
Password	Yes			
Battery	Yes			
Hardware RTC	Yes, battery backed			
Screen saver	Yes			
Buzzer	Yes, audible feedback for touch screen			
Power supply voltage	18 - 30 VDC			

Max power consumption	~ 700 mA at 24 VDC
Fuse	Automatic
Weight	~ 2.25 Kg
Operating temperature	0 to 45 °C
Storage temperature	-20 to +70 °C
Operating and storage humidity	5 - 85 % RH non-condensing
Protection class	IP65 (front panel)

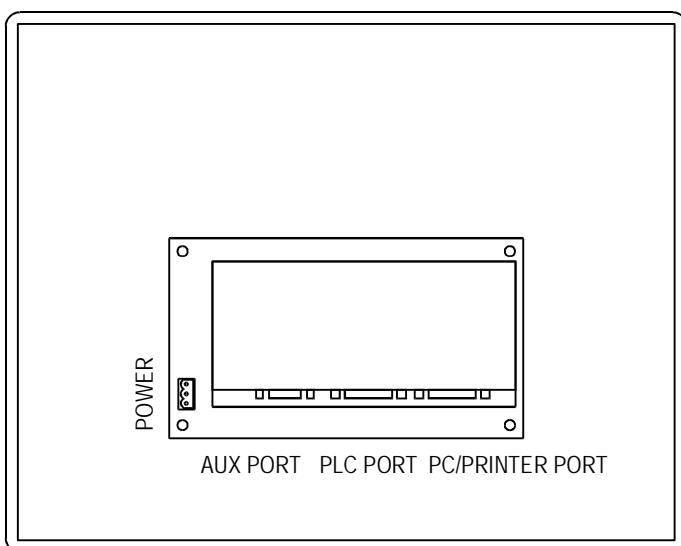
The product is designed for installation in an industrial environment in compliance with the regulations:
Emitted interference EN 61000-6-4, 2001
Noise immunity EN 61000-6-2, 2001

Front dimensions and cutout

Faceplate LxH	287x232 mm	11.30x9.14"
Cutout AxB	276x221 mm	10.87x8.70"
Cutout depth (version -0050)	91 mm	3.58"
Max panel thickness	5 mm	0.2"



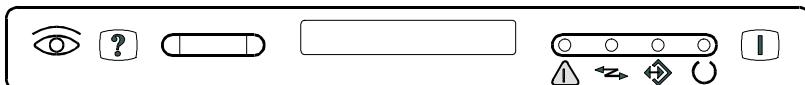
Connections



Indicators on the front panel

There are several dedicated LED indicators on the front panel of the unit. Functions are described in the table below.

A customizable legend strip is included.



Elements not listed in the table are reserved for future use.

LED	Color	Status	Meaning
	red	OFF	No hardware problem detected
		BLINK	Battery low
	green	OFF	Hardware fault
		ON	No touch cell active
	green	OFF	While any touch cell is active (visual feedback)
		ON	Hardware fault
	green	OFF	Unit in operation
		BLINK	Communication error
		ON	Communication OK
	red	OFF	No alarms
		BLINK	Alarm requires acknowledgment
		ON	Alarm active
	green		May be user controlled as LED number 65 using the Macro Editor. Turns ON when recipe/event backup is being performed.

The service area at the top of the product includes also two buttons.

Button	Description
?	User programmable with the Keyboard Macro Editor. Not available in RDA. Designer 5.08 SP7 or higher is required.
I	Reserved for future use

Ordering Information

eTOP30-0050
eTOP32-0050

10.4" VGA TFT color panel with touchscreen
9.6" VGA monochrome panel with touchscreen

UniOP eTOP32B

The eTOP32B is a cost-effective HMI device with touchscreen interface and 9.6" monochrome LCD display. The VGA resolution makes it the ideal choice for HMI applications demanding a large display on a limited budget.



- 9.6" monochrome display
- VGA (640x480 pixel) resolution
- Resistive touchscreen
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- 32 MB internal user memory

Highlights

The eTOP HMI panels are part of the UniOP family of touchscreen products. All of the eTOP products support the rich common functionalities of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Vector graphic capabilities including the support of multiple layers and object transparency.
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Data acquisition and trend presentation. Trend data can be transferred to a host computer using the Ethernet connection.
- Analog gauge objects
- Recipe data storage. Recipe data can be transferred to a host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to a host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data

Display	Monochrome LCD VGA, 640x480 pixel 196x147 mm (9.6"diagonal) - CCFL 100 cd/m ² typ. -	Recipe memory UniNet network Alarms Event list Password Hardware RTC Screen saver Buzzer Battery	32 KB Client/Server 1024 1024 Yes Yes, battery backed Yes Yes, audible feedback for touch screen 3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
Memory	32 MB internal Flash Optional removable 32 MB SSFDC memory card		
Front panel	Analog resistive 1 - 1 4		
Interfaces	Yes RS-232, RS-485, RS-422, 20 mA Current Loop Yes, with optional modules No 9600 – 38400 bps		
Functionality	Yes Yes No Yes		
		Ratings Power supply voltage Current consumption Fuse Weight	24 V DC (18 to 30 V DC) Max 0.7 A at 24 VDC Automatic Approx 2.3 Kg
		Environmental Conditions Operating temperature Storage temperature Operating and storage humidity Protection class	0 to 45 °C -20 to +70 °C 5 – 85 % RH non-condensing IP65 (front panel)
		Dimensions Faceplate LxH Cutout AxB Mounting depth (type 0050)	287x232 mm (11.30x9.14") 276x221 mm (10.87x8.70") 91 mm (3.58")

The product is designed for installation in industrial environments in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001

Noise immunity EN 61000-6-2, 2001

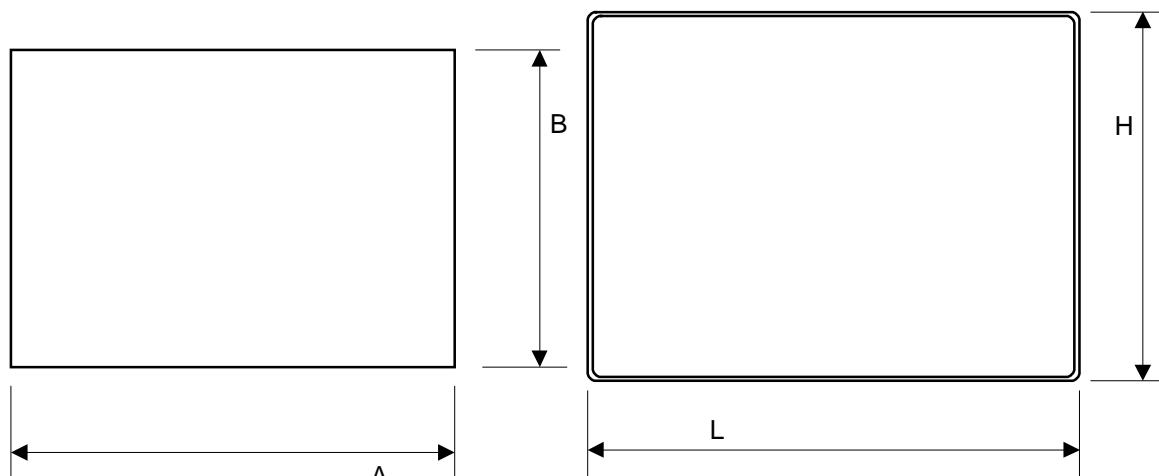


Figure 1 – Cutout and front view

Ordering Information

eTOP32B-0050
PROT-04

9.6" VGA monochrome panel with touchscreen
Disposable protection foil for 10.4" eTOP touch panels (10 pieces)

Tn217

Ver. 1.01

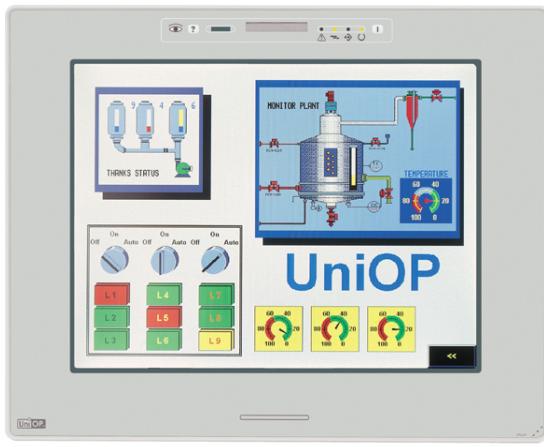
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UniOP eTOP33B

The eTOP33B is a state-of-the-art HMI device with touchscreen interface and 10.4" TFT color graphic display. Support for 64K colors in the brilliant TFT display will increase the realism of the images. The VGA resolution makes it the ideal choice for high-end HMI applications.



- 10.4" TFT color display
- VGA (640x480 pixel) resolution
- 64K colors
- Resistive touchscreen
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- Compatible with video input module
- 32 MB internal user memory

Highlights

The eTOP HMI panels are part of the UniOP family of touchscreen products. All of the eTOP products support the rich common functionalities of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Vector graphic capabilities including the support of multiple layers and object transparency.
- Video input option.
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Data acquisition and trend presentation. Trend data can be transferred to an host computer using the Ethernet connection.
- Analog gauge objects
- Recipe data storage. Recipe data can be transferred to an host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to an host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data

Display	TFT VGA, 640x480 pixel 218x159 mm (10.4"diagonal) 64K CCFL, 50000 h ^(note 1) 450 cd/m ² typ. Yes	Recipe memory UniNet network Alarms Event list Password Hardware RTC Screen saver Buzzer Battery	32 KB Client/Server 1024 1024 Yes Yes, battery backed Yes Yes, audible feedback for touch screen 3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
Memory	32 MB internal Flash Optional removable 32 MB SSFDC memory card		
Front panel	Analog resistive 1 - 1 4		
Interfaces	Yes RS-232, RS-485, RS-422, 20 mA Current Loop Yes, with optional modules Yes 9600 – 38400 bps	Ratings Power supply voltage Current consumption Fuse Weight	24 V DC (18 to 30 V DC) Max 0.7 A at 24 VDC Automatic Approx 2.3 Kg
		Environmental Conditions Operating temperature Storage temperature Operating and storage humidity Protection class	0 to 45 °C -20 to +70 °C 5 – 85 % RH non-condensing IP65 (front panel)
Functionality	Yes Yes Yes Yes	Dimensions Faceplate LxH Cutout AxB Mounting depth (type 0050) Max panel thickness	287x232 mm (11.30x9.14") 276x221 mm (10.87x8.70") 91 mm (3.58") 5 mm (0.2")

Note 1: the lamp lifetime is the typical value for continuous operation at 25°C.

The product is designed for installation in industrial environments in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001

Noise immunity EN 61000-6-2, 2001

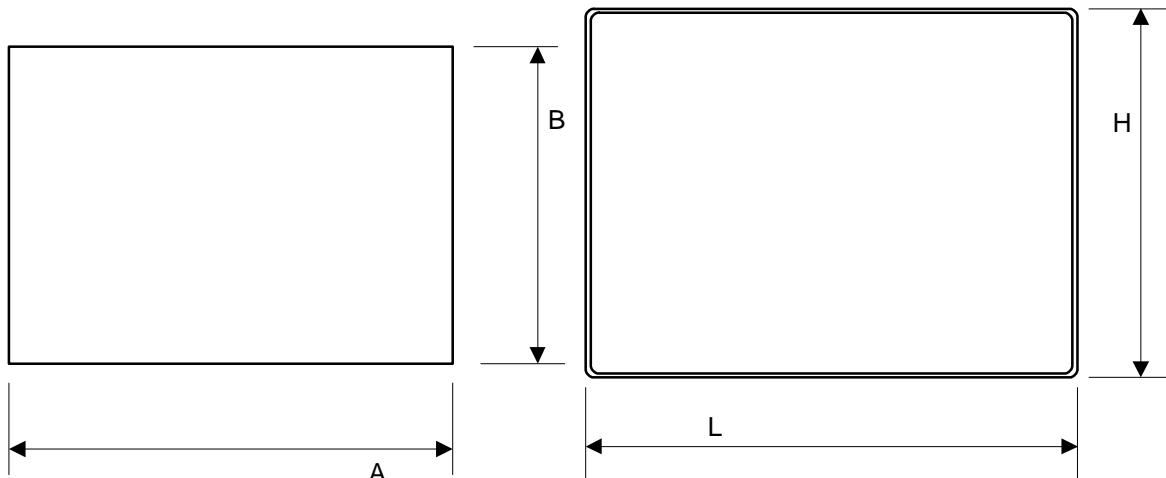


Figure 1 – Cutout and front view

Ordering Information

eTOP33B-0050

10.4" VGA TFT color panel with touchscreen

Tn216
Ver. 1.00

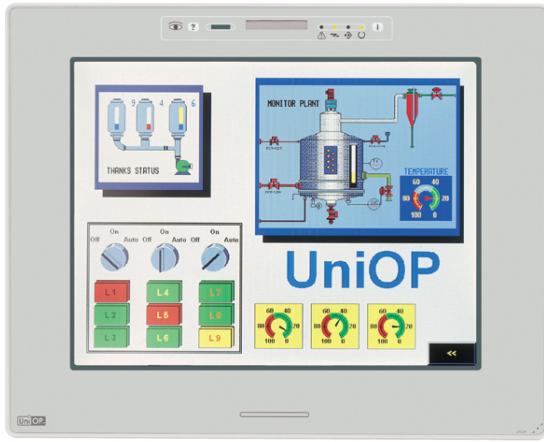
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UniOP eTOP38B

The eTOP38B is a state-of-the-art HMI device with high-brightness sunlight-readable 10.4" TFT color display with SVGA (800x600) resolution and resistive touchscreen. This product has been specifically designed for use with extreme illumination conditions. Support for 64K colors with this high resolution brilliant TFT display will increase the realism of the images. These characteristics make this unit the ideal choice for high-end HMI applications.



- 10.4" TFT color display
- High brightness
- SVGA (800x600 pixel) resolution
- 64K colors
- Sunlight-readable
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- Compatible with video input module
- 32 MB internal user memory

Highlights

The eTOP HMI panels are part of the UniOP family of touchscreen products. All of the eTOP products support the rich common functionalities of the UniOP operator panels.

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Vector graphic capabilities including the support of multiple layers and object transparency.
- Video input option
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Data acquisition and trend presentation. Trend data can be transferred to a host computer using the Ethernet connection.
- Analog gauge objects
- Recipe data storage. Recipe data can be transferred to a host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to a host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data

Display	TFT Resolution Active display area Colors Backlight Brightness Dimming	UniNet network Alarms Event list Password Hardware RTC Screen saver Buzzer Battery	32 KB Client/Server 1024 1024 Yes Yes, battery backed Yes Yes, audible feedback for touch screen 3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
Memory	User memory User memory expansion	32 MB internal Flash Optional removable 32 MB SSFDC memory card	
Front panel	Touch screen Function keys System keys User LED's System LED's	Resistive 1 - 1 4	
Interfaces	PC/Printer port PLC port Aux port (fieldbus and Ethernet) DX port (video input) Serial programming speed	Yes RS-232, RS-485, RS-422, 20 mA Current Loop Yes, with optional modules Yes 9600 – 38400 bps	
Functionality	Vector graphics Dual driver capability Video input Data acquisition and trends	Yes Yes Yes Yes	
Ratings	Power supply voltage Current consumption Fuse Weight	24 V DC (18 to 30 V DC) Max 1.7 A at 24 V DC Automatic Approx 2.5 Kg	
Environmental Conditions	Operating temperature Storage temperature Operating and storage humidity Protection class	0 to 45 °C -20 to +70 °C 5 – 85 % RH non-condensing IP65 (front panel)	
Dimensions	Faceplate LxH Cutout AxB Mounting depth (type 0050)	287x232 mm (11.30x9.14") 276x221 mm (10.87x8.70") 108 mm (4.25")	

Note 1: the lamp lifetime is the typical value for continuous operation at 25°C.

The product is designed for installation in industrial environments in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001

Noise immunity EN 61000-6-2, 2001

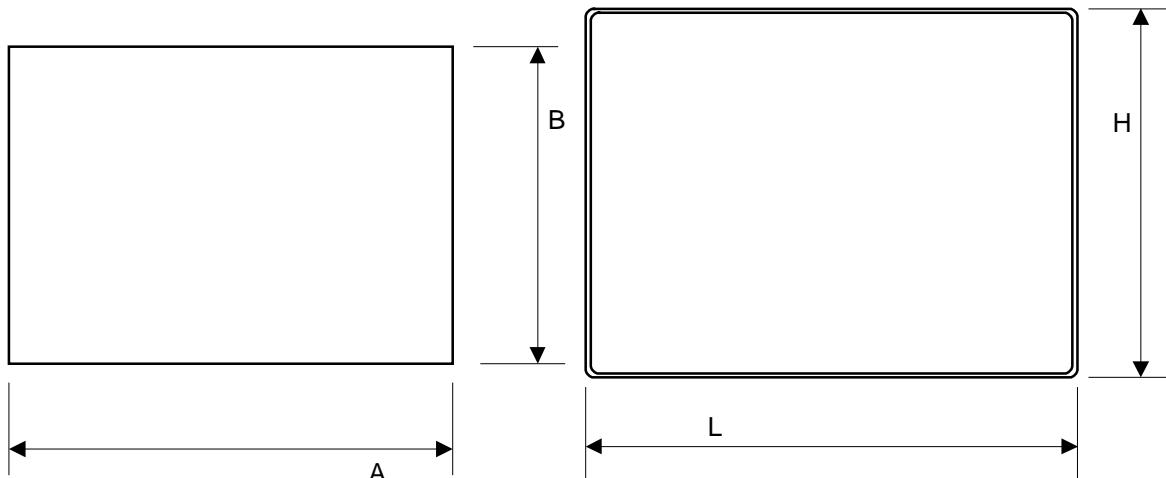


Figure 1 – Cutout and front view

Ordering Information

eTOP38B-0050

10.4" SVGA TFT color panel with resistive touchscreen. Sunlight-readable.

Tn229

Ver. 1.00

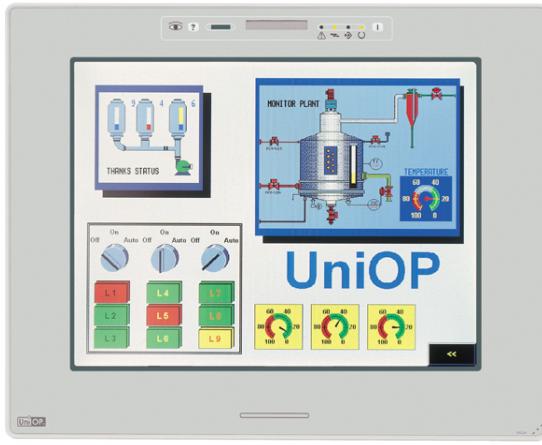
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UniOP eTOP40B

The eTOP40B is a state-of-the-art HMI device with touchscreen interface and 12.1" TFT color graphic display. Support for 64K colors in the brilliant TFT display will increase the realism of the images. The SVGA resolution makes it the ideal choice for high-end HMI applications.



- 12.1" TFT color display
- SVGA (800x600 pixel) resolution
- 64K colors
- Resistive touchscreen
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- Compatible with video input module
- 32 MB internal user memory

Highlights

The eTOP HMI panels are part of the UniOP family of touchscreen products. All of the eTOP products support the rich common functionalities of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Vector graphic capabilities including the support of multiple layers and object transparency.
- Video input option
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Data acquisition and trend presentation. Trend data can be transferred to an host computer using the Ethernet connection.
- Analog gauge objects
- Recipe data storage. Recipe data can be transferred to an host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to an host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data

Display	TFT Resolution Active display area Colors Backlight Brightness Dimming	SVGA, 800x600 pixel 246x184 mm (12.1"diagonal) 64K CCFL, 50000 h ^(note 1) 370 cd/m ² typ. Yes	Recipe memory UniNet network Alarms Event list Password Hardware RTC Screen saver Buzzer Battery	32 KB Client/Server 1024 1024 Yes Yes, battery backed Yes Yes, audible feedback for touch screen 3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
Memory	User memory User memory expansion	32 MB internal Flash Optional removable 32 MB SSFDC memory card		
Front panel	Touch screen Function keys System keys User LED's System LED's	Analog resistive 1 - 1 4		
Interfaces	PC/Printer port PLC port Aux port (fieldbus and Ethernet) DX port (video input) Serial programming speed	Yes RS-232, RS-485, RS-422, 20 mA Current Loop Yes, with optional modules Yes 9600 – 38400 bps		
Functionality	Vector graphics Dual driver capability Video input Data acquisition and trends	Yes Yes Yes Yes		
			Ratings Power supply voltage Current consumption Fuse Weight	18 - 30 VDC Max 0.8 A at 24 VDC Automatic Approx 2.8 Kg
			Environmental Conditions Operating temperature Storage temperature Operating and storage humidity Protection class	0 to 45 °C -20 to +70 °C 5 – 85 % RH non-condensing IP65 (front panel)
			Dimensions Faceplate LxH Cutout AxB Mounting depth (type 0050) Max panel thickness	337x267 mm (13.26x10.51") 326x256 mm (12.83x10.08") 91 mm (3.58") 5 mm (0.2")

Note 1: the lamp lifetime is the typical value for continuous operation at 25°C.

The product is designed for installation in industrial environments in compliance with the regulations:
 Emitted interference EN 61000-6-4, 2001
 Noise immunity EN 61000-6-2, 2001

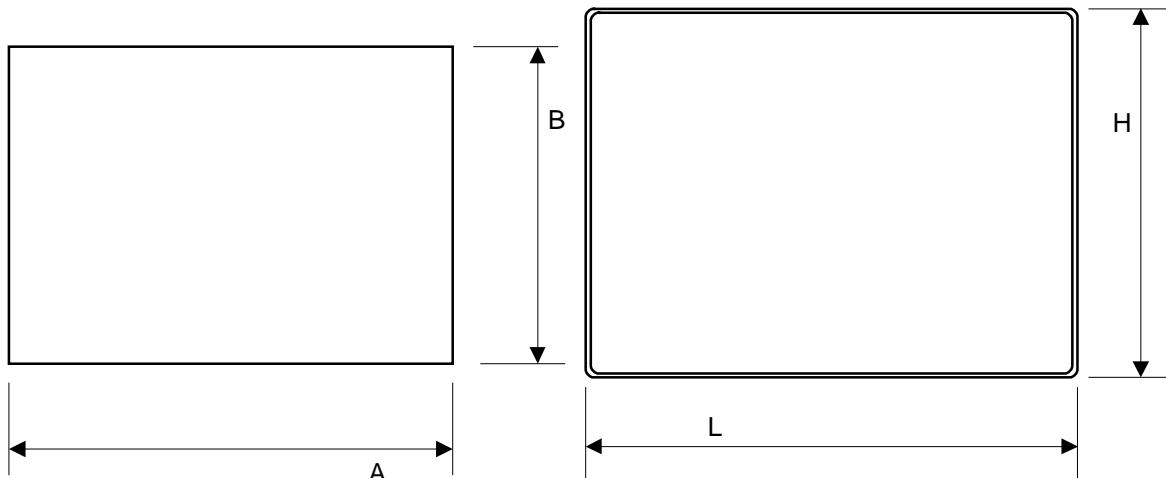


Figure 1 – Cutout and front view

Ordering Information

eTOP40B-0050

12.1" SVGA TFT color panel with touchscreen

Tn219

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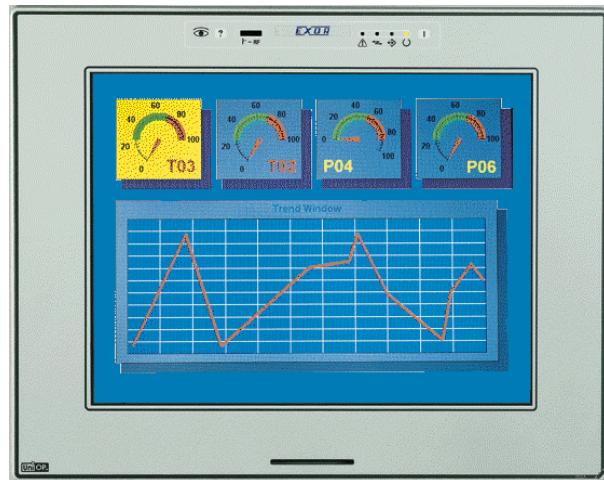
The information contained in this document is provided for informational purposes only. While efforts were made to verify the accuracy of the information contained in this documentation, it is provided "as is" without warranty of any kind.

UniOP eTOP50

The eTOP50 is a state-of-the-art HMI device with a touch screen interface and a 15" graphic display. The novel aluminum bezel offers a rugged and convenient flat design and an appealing look.

Highlights

- **15" diagonal graphic display**
- **TFT Color display**
- **XVGA (1024x768 pixels) resolution**
- **Shows up to 48 rows, 128 characters of information**
- **Resistive touch screen**
- **Connection to industrial bus systems**
- **Connection to Ethernet**
- **Compatible with HMIcontrol and local I/O subsystems**
- **Large memory size (8 MB Flash)**
- **IP65 front panel protection**
- **Programmable with UniOP Designer version 5.08**



The eTOP HMI panels are part of the eTOUCH family of touch screen products. All of the eTOUCH products support the rich common functionality of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, DeviceNet, Interbus, CANopen) and Ethernet
- Display data in numerical, text and bargraph format
- Dynamic graphic objects
- Data acquisition and trend presentation
- Analog gauges
- Recipe data storage
- Keyboard/Touch macro editor
- Alarms and historical alarm list
- Eight level password protection
- Report printing to serial printer

Technical data

eTOP50	Display TFT color LCD	Colors 256	Backlight CCFL	Lifetime 50000h
Display Graphic resolution Active display area Rows/columns Character height Scalable fonts User definable characters Contrast regulation	1024x768 pixels 304.1x228.1 mm (15"diagonal) 48x128 - Yes 256 -			
Memory User memory User memory expansion	8 MB SSFDC memory card -			
Front panel Function keys System keys Touch screen User LED's System LED's	- - Resistive (guaranteed 3 M operations) - 5			
Connections PC/Printer port PLC port Aux port (fieldbus and Ethernet connection) External keyboard port Programming speed	Yes RS-232, RS-485, RS-422, 20 mA CL Yes, with optional modules No 9600 - 38400 bps			
Functionality Page size Number of variables per page Recipe memory UniNet network Alarms Event list Alarm info page Password Battery Hardware RTC Screen saver Buzzer Power supply voltage Max power consumption Fuse	- Unlimited 32 KB Client/Server 1024 1024 Yes Yes Yes Yes, battery backed Yes Yes, audible feedback for touch screen 18 – 30 VDC ~ 1200 mA at 24 VDC Automatic			

Weight	~ 3.85 Kg
Operating temperature	0 to 45 °C
Storage temperature	-20 to +70 °C
Operating and storage humidity	5 – 85 % RH non-condensing
Protection class	IP65 (front panel)

The product is designed for installation in an industrial environment in compliance with the regulations:

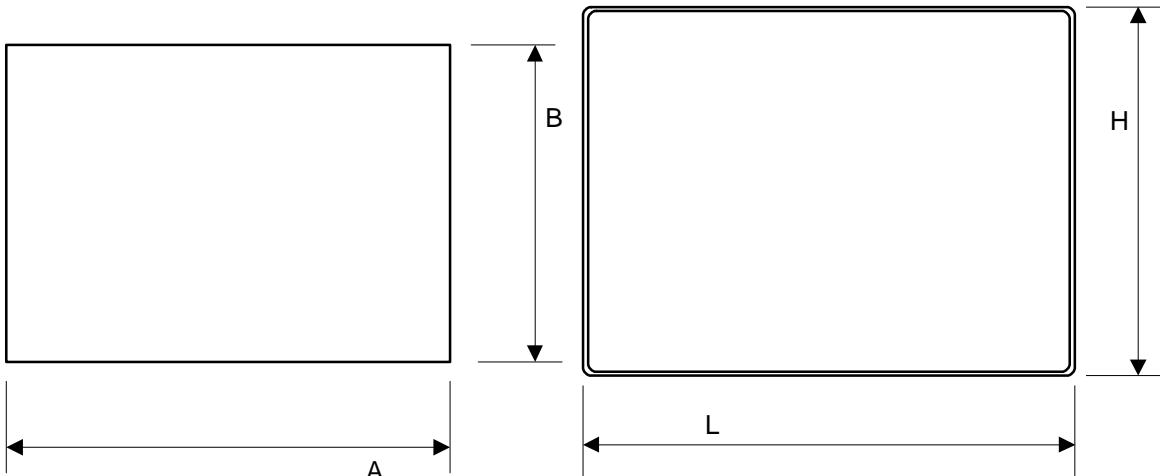
Emitted interference EN 61000-6-4, 2001

Noise immunity EN 61000-6-2, 2001

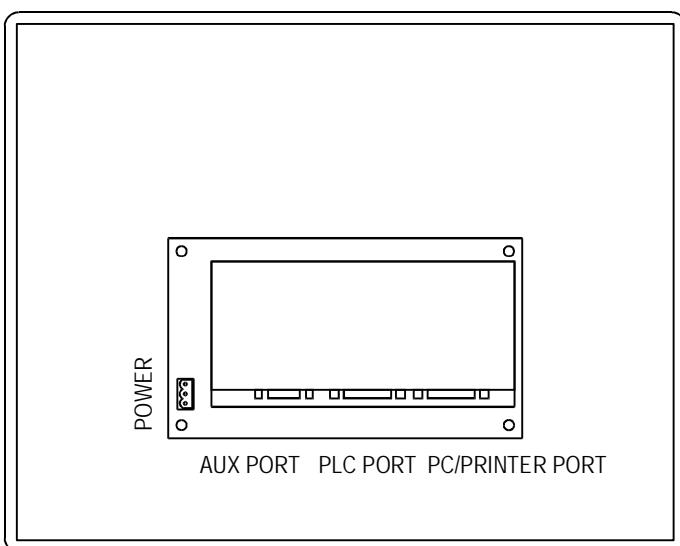
Front dimensions and cutout

Faceplate LxH	392x307 mm
Cutout AxB	381x296 mm
Cutout depth (version -0050)	101 mm
Max panel thickness	5 mm

15.43x12.08"
15.00x11.65"
3.98"
0.2"



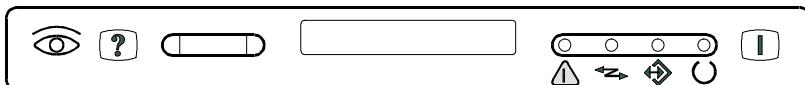
Connections



Indicators on the front panel

There are several dedicated LED indicators on the front panel of the unit. Functions are described in the table below.

A customizable legend strip is included.

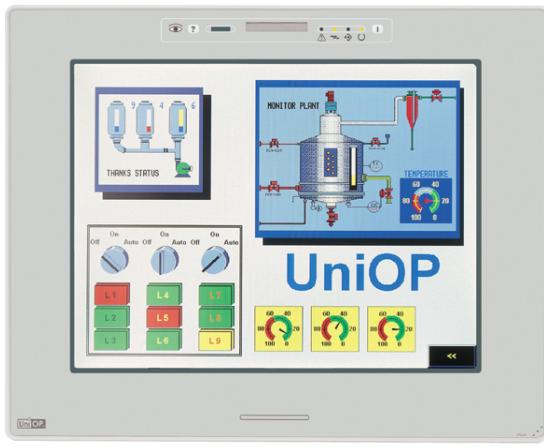


Elements not listed in the table are reserved for future use.

LED	Color	Status	Meaning
	red	OFF	No hardware problem detected
		BLINK	Battery low
	green	ON	Hardware fault
		OFF	No touch cell active
	green	ON	While any touch cell is active (visual feedback)
		OFF	Hardware fault
	green	ON	Unit in operation
		BLINK	Communication error
	green	ON	Communication OK
		OFF	No alarms
	red	BLINK	Alarm requires acknowledgment
	red	ON	Alarm active

UniOP eTOP50B

The eTOP50B is a state-of-the-art HMI device with touchscreen interface and 15" TFT color graphic display. Support for 64K colors in the brilliant TFT display will increase the realism of the images. The XGA resolution makes it the ideal choice for high-end HMI applications.



- 15" TFT color display
- XGA (1024x768 pixel) resolution
- 64K colors
- Resistive touchscreen
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- Compatible with video input module
- 32 MB internal user memory

Highlights

The eTOP HMI panels are part of the UniOP family of touchscreen products. All of the eTOP products support the rich common functionalities of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Vector graphic capabilities including the support of multiple layers and object transparency.
- Video input option
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Data acquisition and trend presentation. Trend data can be transferred to an host computer using the Ethernet connection.
- Analog gauge objects
- Recipe data storage. Recipe data can be transferred to an host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to an host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data			
Display	TFT XGA, 1024x768 pixel 304x228 mm (15"diagonal) 64K CCFL, 50000 h ^(note 1) 250 cd/m ² typ. Yes	Recipe memory UniNet network Alarms Event list Password Hardware RTC Screen saver Buzzer	32 KB Client/Server 1024 1024 Yes Yes, battery backed Yes Yes, audible feedback for touch screen 3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
Memory	User memory User memory expansion	32 MB internal Flash Optional removable 32 MB SSFDC memory card	
Front panel	Touch screen Function keys System keys User LED's System LED's	Analog resistive 1 - 1 4	
Interfaces	PC/Printer port PLC port Aux port (fieldbus and Ethernet) DX port (video input) Serial programming speed	Yes RS-232, RS-485, RS-422, 20 mA Current Loop Yes, with optional modules Yes 9600 – 38400 bps	Ratings Power supply voltage Current consumption Fuse Weight
			18 - 30 VDC Max 1.2 A at 24 VDC Automatic Approx 3.8 Kg
			Environmental Conditions Operating temperature Storage temperature Operating and storage humidity Protection class
			0 to 45 °C -20 to +70 °C 5 – 85 % RH non-condensing IP65 (front panel)
Functionality	Vector graphics Dual driver capability Video input Data acquisition and trends	Yes Yes Yes Yes	Dimensions Faceplate LxH Cutout AxB Mounting depth (type 0050) Max panel thickness
			392x307 mm (15.43x12.08") 381x296 mm (15.00x11.65 ") 101 mm (3.98") 5 mm (0.2")

Note 1: the lamp lifetime is the typical value for continuous operation at 25°C.

The product is designed for installation in industrial environments in compliance with the regulations:
 Emitted interference EN 61000-6-4, 2001
 Noise immunity EN 61000-6-2, 2001

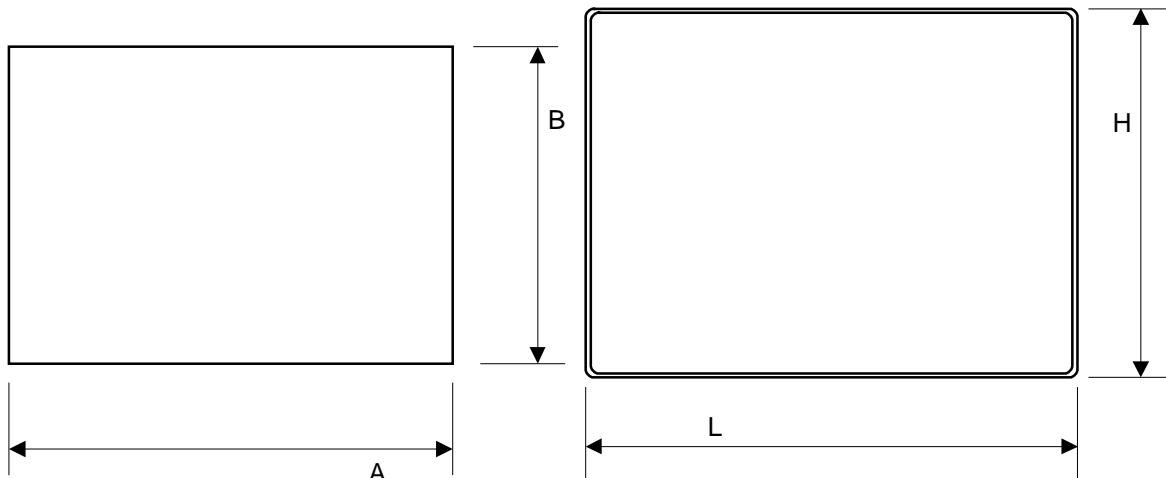


Figure 1 – Cutout and front view

Ordering Information

ETOP50B-0050

15" XGA TFT color panel with touchscreen

Tn220

Ver. 1.00

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UniOP eTOP59B

The eTOP59B is a state-of-the-art HMI device featuring a high-brightness sunlight-readable 15" TFT color display with XVGA (1024x768) resolution and resistive touchscreen. This product has been specifically designed for use under extreme illumination conditions. Support for 64K colors in the brilliant TFT display will increase the realism of the images. These characteristics make this unit the ideal choice for high-end HMI applications..



- 15" TFT color display
- High brightness
- XVGA (1024x768 pixel) resolution
- 64K colors
- Sunlight-readable
- Resistive touchscreen
- Connection to industrial bus systems and Ethernet (requires optional plug-in modules)
- Compatible with video input module
- 32 MB internal user memory

Highlights

The eTOP HMI panels are part of the UniOP family of touchscreen products. All of the eTOP products support the rich common functionalities of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer 6 software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, CANopen, DeviceNet, Interbus) and Ethernet. Ethernet modules allow connection to field devices as well as programming the HMI from Designer.
- Dual-driver communication capability
- Vector graphic capabilities including the support of multiple layers and object transparency.
- Video input option
- Display dynamic data in numerical, text, bargraph and graphic image formats
- Data acquisition and trend presentation. Trend data can be transferred to an host computer using the Ethernet connection.
- Analog gauge objects
- Recipe data storage. Recipe data can be transferred to an host computer using the Ethernet connection.
- Multilanguage applications. The number of runtime languages is limited only by the available memory. All text information in the application can be exported in Unicode format for easier translation.
- Powerful macro editor to configure touchscreen operation
- Alarms and historical alarm list. Alarm and event information can be printed or transferred to an host computer using the Ethernet connection.
- Eight level password protection.
- Report printing to serial printer. Reports are freely configurable using Designer.
- Ethernet-based UniNet network to share data between UniOP HMIs and to serve data using UniNet OPC Server.

Technical Data

Display	TFT XVGA, 1024x768 pixel 304x228 mm (15"diagonal) 64K CCFL, 50000 h ^(note 1) 650 cd/m ² typ. Yes	Recipe memory UniNet network Alarms Event list Password Hardware RTC Screen saver Buzzer Battery	32 KB Client/Server 1024 1024 Yes Yes, battery backed Yes Yes, audible feedback for touch screen 3 V 270 mA Lithium, non rechargeable, user replaceable, model CR2430. Replace with same component or equivalent compatible with the operating temperature of the product.
Memory	32 MB internal Flash Optional removable 32 MB SSFDC memory card		
Front panel	Analog resistive 1 - 1 4		
Interfaces	Yes RS-232, RS-485, RS-422, 20 mA Current Loop Yes, with optional modules Yes 9600 – 38400 bps	Ratings Power supply voltage Current consumption Fuse Weight	18 - 30 VDC Max 1.7 A at 24 VDC Automatic Approx 4.2 Kg
		Environmental Conditions Operating temperature Storage temperature Operating and storage humidity Protection class	0 to 45 °C -20 to +70 °C 5 – 85 % RH non-condensing IP65 (front panel)
Functionality	Yes Yes Yes Yes	Dimensions Faceplate LxH Cutout AxB Mounting depth (type 0050)	392x307 mm (15.43x12.08") 381x296 mm (15.00x11.65 ") 101 mm (3.98")

Note 1: the lamp lifetime is the typical value for continuous operation at 25°C.

The product is designed for installation in industrial environments in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001
 Noise immunity EN 61000-6-2, 2001

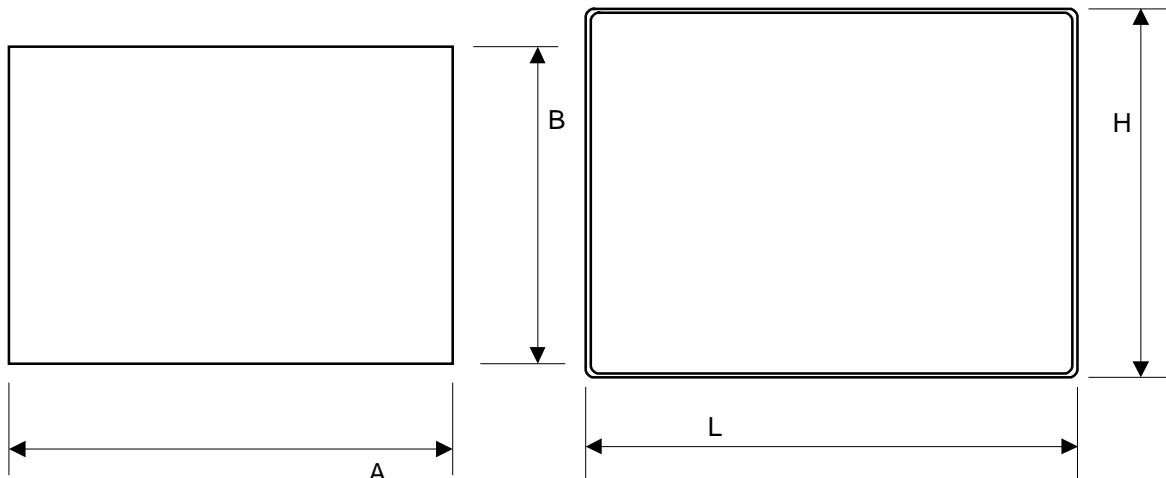


Figure 1 – Cutout and front view

Ordering Information

eTOP59B-0050

15" XVGA high-brightness TFT color panel with touchscreen

Tn230

Ver. 1.00

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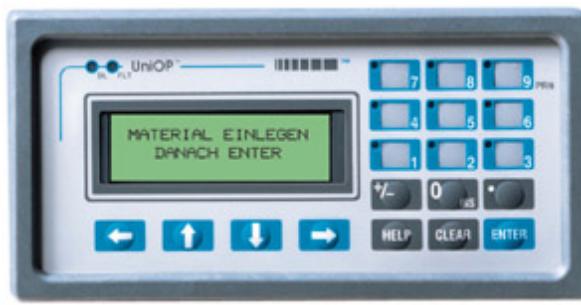
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UniOP MD02F-02 and MD02R-04

Compact HMI devices with 9 function keys, numerical keypad and 20 characters display.

Highlights

- Shows up to 2 or 4 rows, 20 characters of information
- Choice of Vacuum Fluorescent or Monochrome LCD
- 9 user programmable function keys with slide-in legends
- 10 user programmable LED indicators
- Multilanguage project capability
- Dual-driver communication
- Connection to industrial bus systems and Ethernet with optional modules
- IP65 front panel protection



The MD02F-02 and MD02R-04 HMI panels are compact low cost products yet extremely rich in functionality. The products support the rich common functionality of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer software
- Dual-driver communication capability,
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, DeviceNet, CANopen, Interbus) and Ethernet
- Display data in numerical, text and bargraph format
- Recipe data storage
- Keyboard macro editor
- Alarms and historical alarm list
- Eight level password protection

Technical Data

The product is available in two versions that differ only by display type.

	Display	Colors	Backlight	Lifetime
MD02F-02	VFD	-	-	
MD02R-04	LCD	-	LCD	100.000 hours

Display	2/20 5 mm - -	4/20 5 mm 8 Software
Memory		512 KB 512 KB
Front panel		9 10 - 9 2
Connections		Yes RS-232, RS-422, RS-485, CL 20 mA Yes, requires optional module
PC/Printer port PLC port Aux port (fieldbus and Ethernet connection) External keyboard port Programming speed		No 9600 ÷ 38400 bps
Functionality		Unlimited Yes 16 KB No Client/Server 1024 256 Yes Yes CR2430 (3V 270mA Lithium), non rechargeable, user replaceable. Replace with same type or equivalent compatible with the operating temperature of the product
Hardware RTC Screen saver Buzzer Power supply voltage		Yes No No 18 ÷ 30 VDC

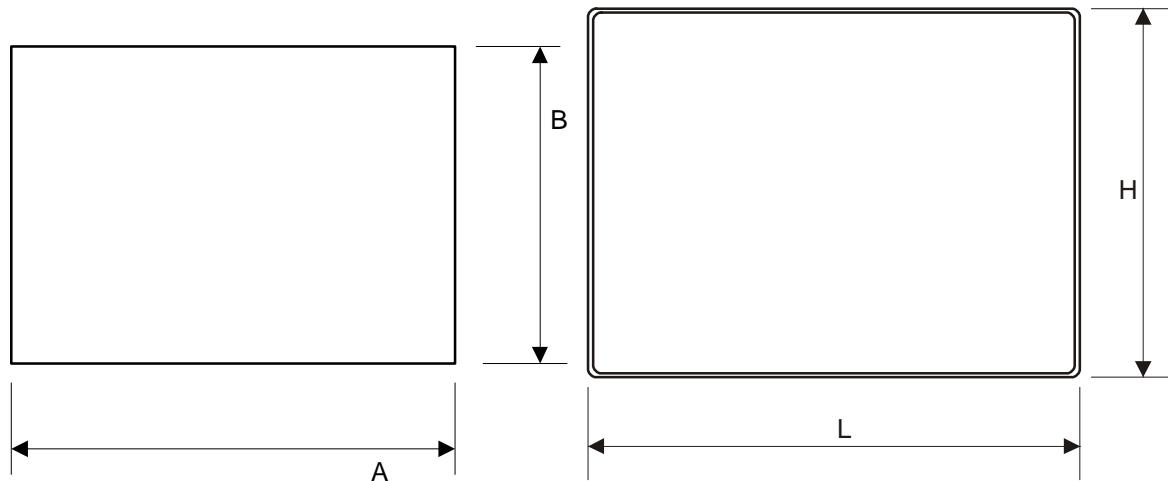
Max power consumption	0.25 A at 24 VDC
Fuse	2 A (user replaceable)
Weight	~ 0.9 Kg
Operating temperature	
-0045, -0050	0 ÷ +50 °C
-00A6	0 ÷ +60 °C
-00A7	-20 ÷ +60 °C
Storage temperature	-20 ÷ +70 °C
Operating and storage humidity	5 ÷ 85 % RH non-condensing
Protection class	IP65 (front panel)

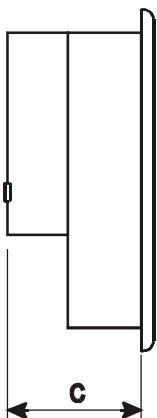
The products are designed for installation in an industrial environment in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001
 Noise immunity EN 61000-6-2, 2001

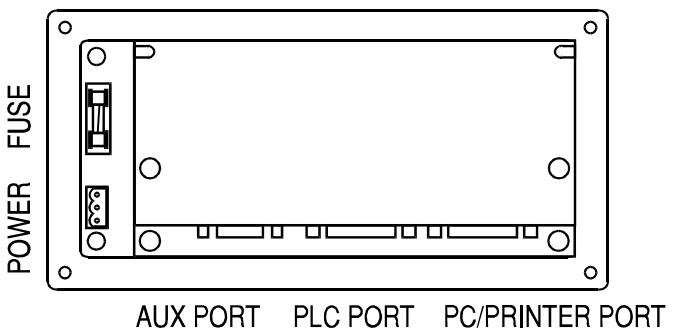
Front Dimensions and Cutout

Faceplate LxH	195x98 mm	7.67x3.85 "
Cutout AxB	174x78 mm	6.85x3.43 "
Cutout depth C		
-0045, -00A7	74 mm	2.91 "
-0050	82 mm	3.20 "
Max panel thickness	5 mm	0.20"





Connections



The product is compatible with all standard TCM and SCM modules.
To access the slot for the modules, remove the rear cover of the product

The backup battery is accessible for replacement after removing the main module of the unit.

The standard programming cable CA114 can be used with this product.

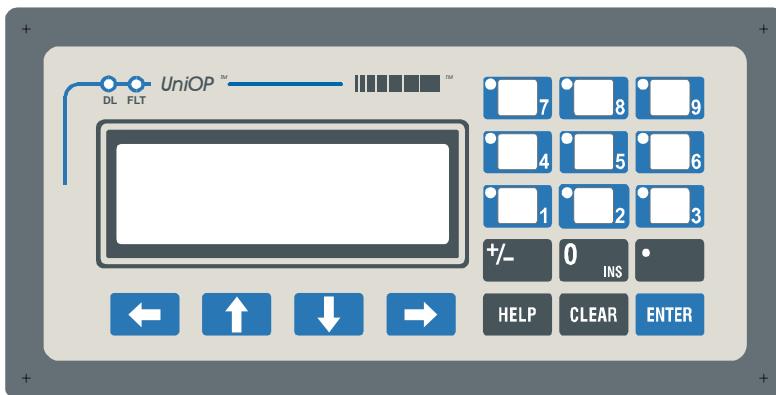
Indicators and keypad

There are several dedicated LED indicators on the front panel of the unit. Functions are described in the table below.

A customizable legend strip is included.

Elements not listed in this chapter are reserved for future use.

LED	Color	Status	Meaning
DL	green	OFF	No keys are pressed and no errors
		BLINK	Communication error
		ON	While any key is pressed (visual feedback)
FL	red	OFF	No hardware problem detected; battery OK
		BLINK	Battery low
		ON	Hardware fault



The RDA mapping of LED indicators is shown in the table below.

RDA Bit	LED on Key
L18	1
L19	2
L20	3
L21	4
L22	5
L23	6
L24	7
L24	8
L26	9

The RDA mapping of all keys is standard.

Function keys associated to keys 1 to 9 have a slide-in legend. Legend strips in laser printable form are available as accessories.



Ordering Information

MD02F-02-0045	Compact low-cost HMI with 2x20 VFD display
MD02R-04-0045	Compact low-cost HMI with 4x20 LCD display
MD02R-04-00A6	Compact low-cost HMI with 4x20 LCD display, extended operating temperature range
MD02R-04-00A7	Compact low-cost HMI with 4x20 LCD display, extended operating temperature range
MD02R-04-0050	Compact low-cost HMI with 4x20 LCD display, compatible with local I/O
R-PRINT2297	Printable legends (5 A4 foils, 8 sets of legends per foil)

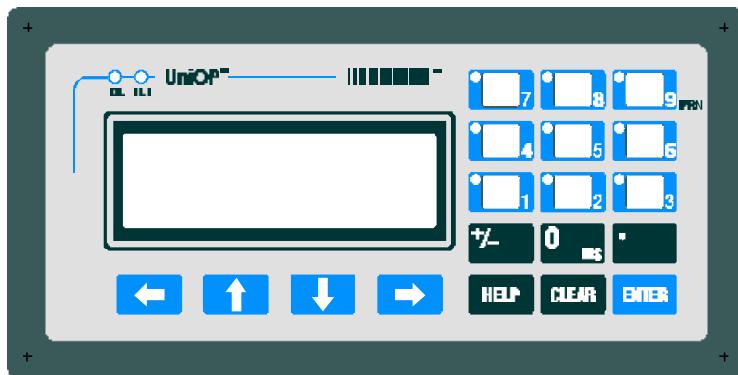
Tn196

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UniOP MD03R-02 and MD03R-04

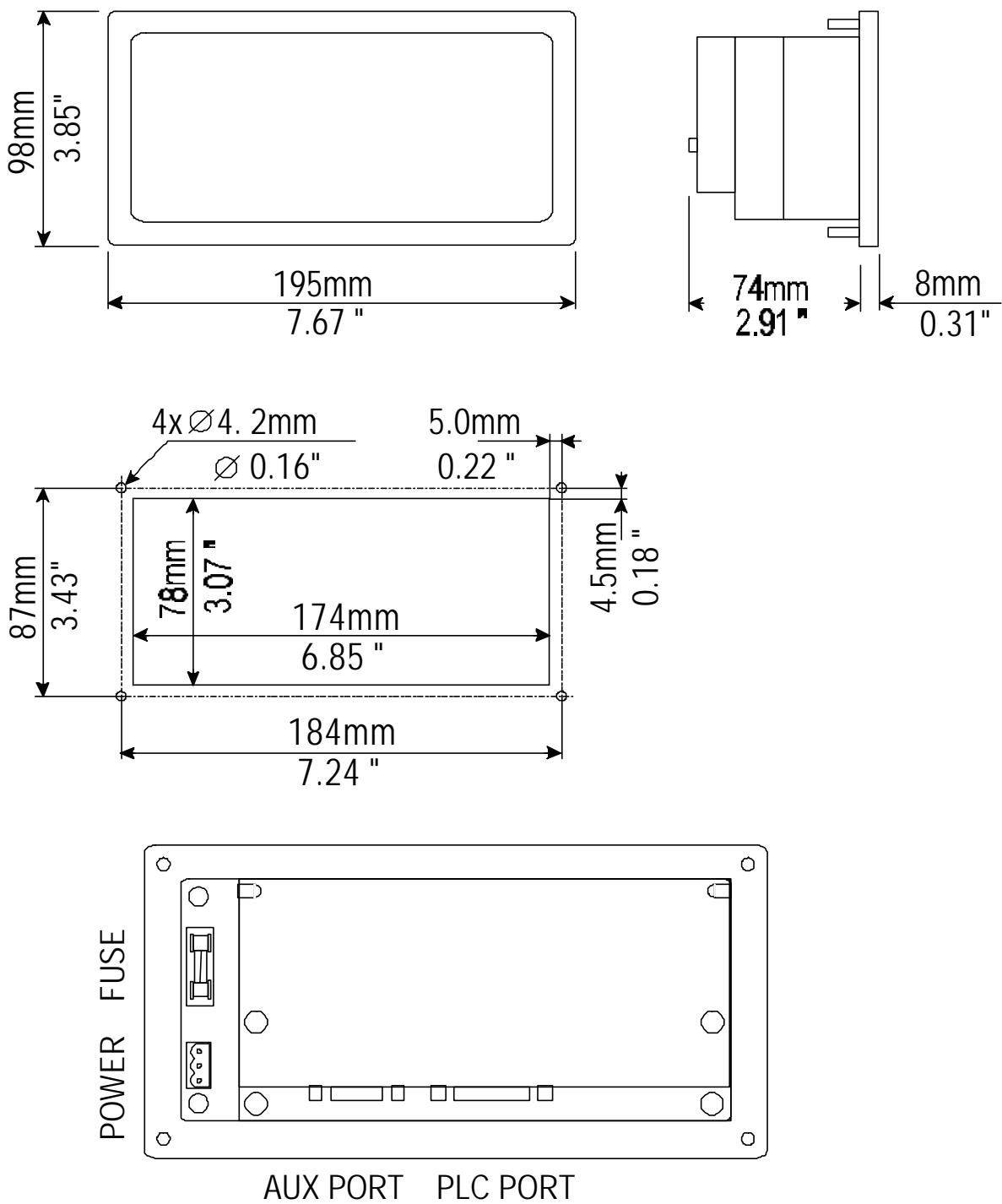


Technical Data

Display	MD03R-02 2x20 LCD backlit MD03R-04 4x20 LCD backlit
Contrast regulation	software
Keyboard	19 keys (9 function keys + numerical keypad)
User LED	9
Power supply	24 VDC
Program memory	512 KB Flash EPROM (32 KB reserved for protocol)
Communication ports	1 RS-232/RS-485/CL 20 mA port for programming/PLC (-0045)
Aux Port	YES
Alarms	256
Alarm infor page	YES
Number of variables per page	Unlimited
Page size	32 rows
Macro Editor	YES
Hardware Clock/Calendar	NO
Historical Event List	NO
Recipes	NO
UniNET network	Only as a CLIENT node
Password	YES
Printer	NO

EXOR® Tech-note

PN# TN65-2.doc - 01/18/01 - Ver. 1.02



UniOP MKDG-05

The MKDG-05 is a compact and low cost operator panel with a large graphic display. The 240x64 graphic monochrome display can show plenty of information in a very effective mechanical size.

Highlights

- **8 line x 40 character graphic monochrome display**
- **Downloadable fonts**
- **Scalable text**
- **20 function keys with slide-in legends**
- **25 user programmable LED indicators**
- **Multilanguage project capability**
- **Connection to bus systems**



The MKDG-05 HMI panel is part of the entry-level range of UniOP products, offering a wide display and numerous function keys in an attractively compact mechanical format.

The MKDG-05 supports the rich common functionality of the UniOP operator panels:

- Powerful and intuitive programming with the UniOP Designer software
- Support of more than 130 communication drivers for industrial devices
- Optional modules for fieldbus systems (Profibus DP, DeviceNet, Interbus, CANopen) and Ethernet
- Display data in numerical, text and bargraph format
- Dynamic graphic objects
- Recipe data storage
- Keyboard macro editor for free programming of keyboard functionality
- Alarms and historical alarm list
- Eight level password protection
- Report printing to serial printer

Technical Data

Display	
Graphic resolution	240x64
Active display area	127x34 mm
Rows/columns	8/40
Character height	-
Scalable fonts	Yes
User definable characters	255
Contrast regulation	Software
Memory	
User memory	512 KB (64 reserved to the protocol)
User memory expansion	512 KB
Front panel	
Function keys	20 with slide-in legends
System keys	21
Touch screen	No
User LED's	25
System LED's	5
Connections	
PC/Printer port	Yes
PLC port	RS-232, RS-485, RS-422, 20 mA CL
Aux port (fieldbus and Ethernet connection)	Yes, with optional modules
External keyboard port	No
Programming speed	9600 - 38400 bps
Functionality	
Number of variables per page	Unlimited
Recipe memory	16 KB
Data acquisition and trends	Yes
UniNet network	Client/Server
Alarms	1024
Event list	1024
Alarm info page	Yes
Password	Yes
Battery	Yes
Hardware RTC	Yes, battery backed
Screen saver	Yes
Buzzer	No
Power supply voltage	18-30 VDC
Max power consumption	~ 400 mA at 24 VDC
Fuse	Automatic
Weight	~ 1.8 Kg
Operating temperature	0 to 50 °C
Storage temperature	-20 to +70 °C
Operating and storage humidity	5 - 95 % RH non-condensing
Protection class	IP65 (front panel)

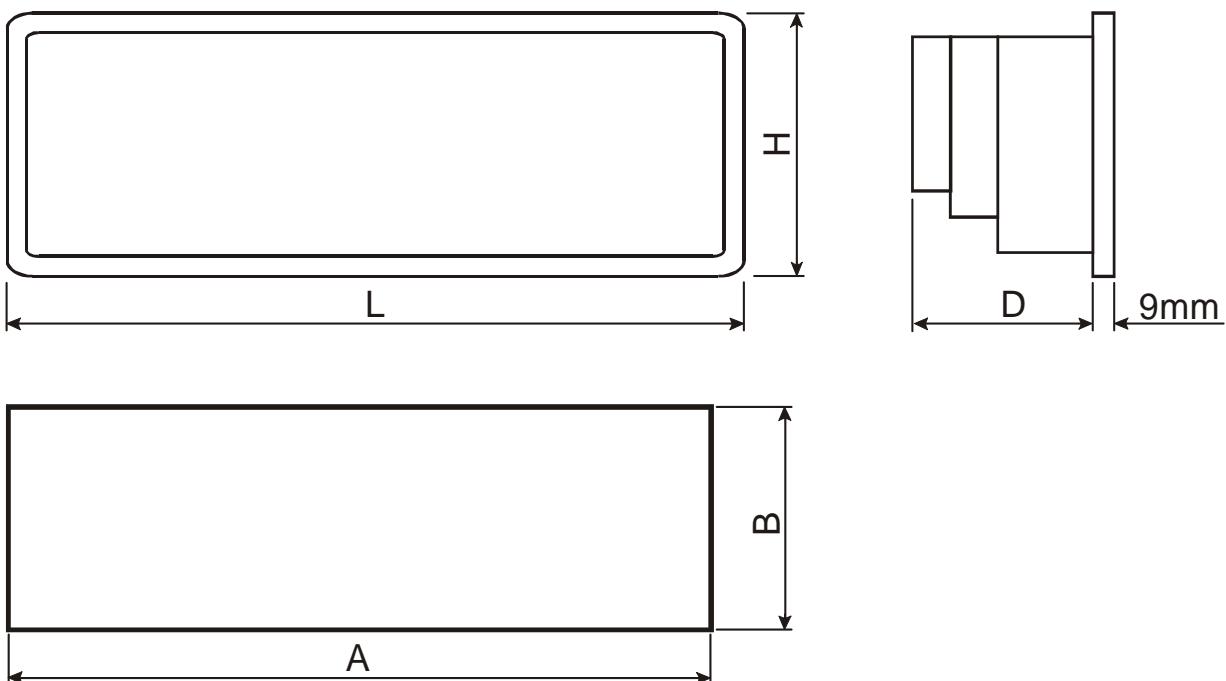
The product is designed for installation in an industrial environment in compliance with the regulations:

Emitted interference EN 61000-6-4, 2001

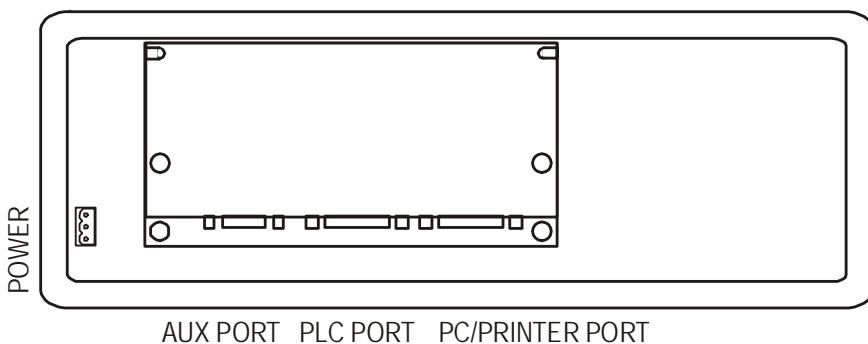
Noise immunity EN 61000-6-2, 2001

Front Dimensions and Cutout

Faceplate LxH	311x111 mm	12.25x2.37"
Cutout AxB	292x92 mm	11.50x3.62"
Cutout depth D (version -0045)	80 mm	3.15"
Max panel thickness	5 mm	0.2"



Connections



Indicators and keypad

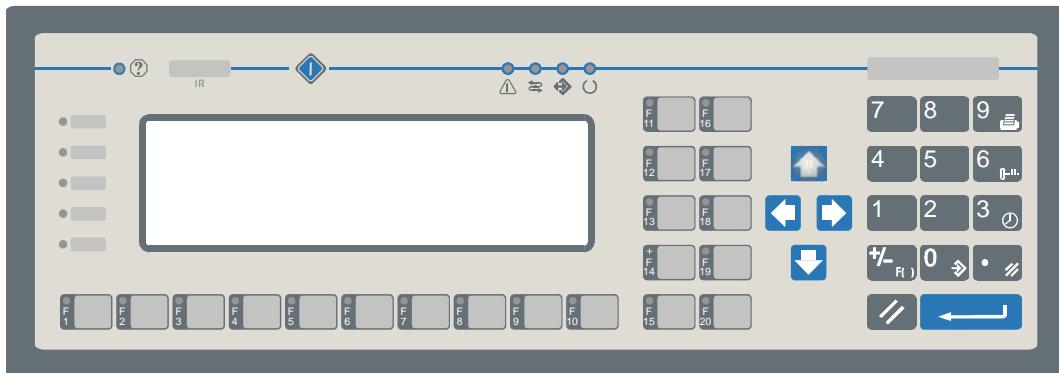
There are several dedicated LED indicators on the front panel of the unit. Functions are described in the table below.

A customizable legend strip is included.



Elements not listed in this chapter are reserved for future use.

LED	Color	Status	Meaning
?	red	OFF	No hardware problem detected
		BLINK	Battery low
	ON	Hardware fault	
C	green	OFF	No touch cell active
		ON	While any touch cell is active (visual feedback)
O	green	OFF	Hardware fault
		ON	Unit in operation
P	green	BLINK	Communication error
		ON	Communication OK
A	red	OFF	No alarms
		BLINK	Alarm requires acknowledgment
		ON	Alarm active
↔	green		May be user controlled as LED number 65 using the Macro Editor. Turns ON when recipe/event backup is being performed.



The RDA mapping of LED indicators is standard.

The RDA mapping of all keys is standard.



Tech-note

PN# tn172-1.doc - 03/10/2003 - Ver. 1.01

Ordering Information

MKDG-05-0045

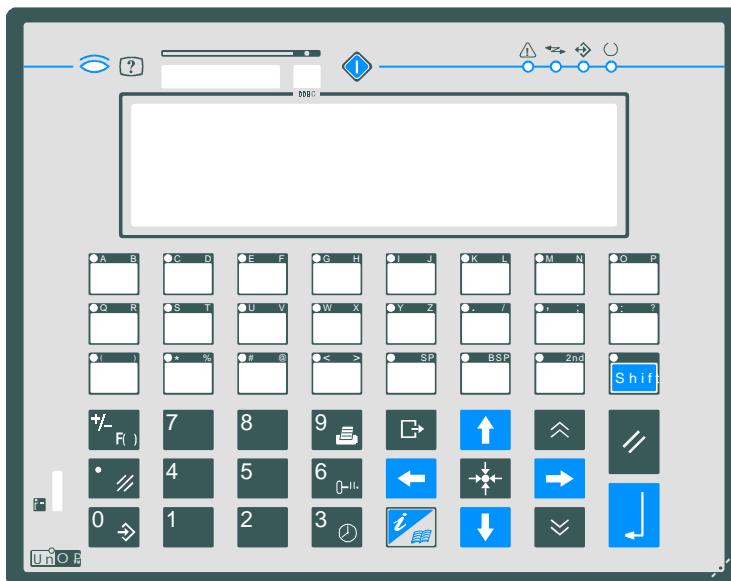
Entry-level HMI with 240x64 graphic LCD display and 20 function keys

UniOP MKDG-06

Low cost HMI unit with monochrome graphic LCD display.

Highlights

- **Graphic monochrome display**
- **8 rows, 40 columns of text**
- **Downloadable fonts**
- **Scalable text**
- **23 function keys**
- **24 user LEDs**
- **ASCII keyboard**
- **Multilanguage project capability**
- **Connection to bus systems**
- **New plastic bezel with flat design**



Technical data

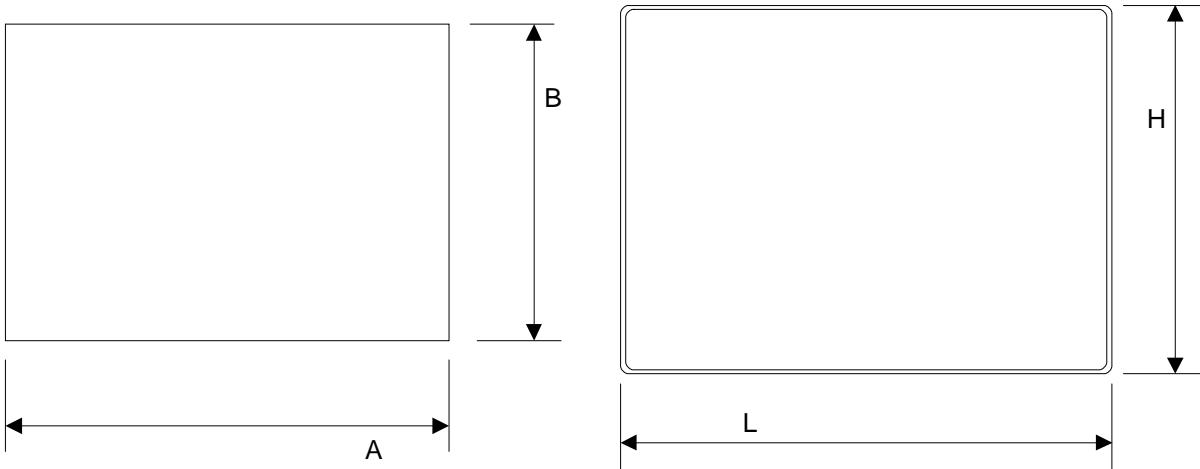
Display	Monochrome LCD
Backlight	
Graphics	
Display dimensions	127x34 mm
Rows/columns	8x40
Character height	-
Scalable fonts	Yes
User definable characters	256
Contrast regulation	Software
User memory	512 KB (64 reserved to the protocol)
User memory expansion	512 KB
Function keys	23
System keys	24
Touch screen	No
User LEDs	24
System LEDs	5
PC/Printer port	Yes
PLC port	RS-232, RS-422, RS-485, CL 20 mA
Aux port (fieldbus connection)	Yes, with optional module

LED	
240x64 pixels	
127x34 mm	
8x40	
-	
Yes	
256	
Software	
512 KB (64 reserved to the protocol)	
512 KB	
23	
24	
No	
24	
5	
Yes	
RS-232, RS-422, RS-485, CL 20 mA	
Yes, with optional module	

External keyboard port	No
Programming speed	9600 ÷ 38400 bps
Page size	32 rows
Number of variables per page	Unlimited
Recipe memory	16 KB
UniNet network	Client/Server
Alarms	1024
Event list	256
Alarm info page	Yes
Password	Yes
Battery	Yes
Hardware RTC	Yes
Screen saver	No
Buzzer	No
Fuse	2 A (user replaceable)
Power supply voltage	18 ÷ 30 VDC
Max power consumption at 24VDC	~ 400 mA
Max panel thickness	5 mm
Weight	
Operating temperature	0 ÷ 50 °C
Storage temperature	-20 ÷ 70 °C
Operating and storage humidity	5 ÷ 95 % UR non-condensing
Protection class	IP-65 (front panel)

Front dimensions and cutout

Front dimensions LxH	220 x 176 mm	8.66 x 6.93 "
Cutout AxB	207 x 163 mm	8.15 x 6.42 "
Cutout depth – version -0045	76 mm	2.99 "
Cutout depth – version -0050 (Snap-top)	79.7 mm	3.14 "

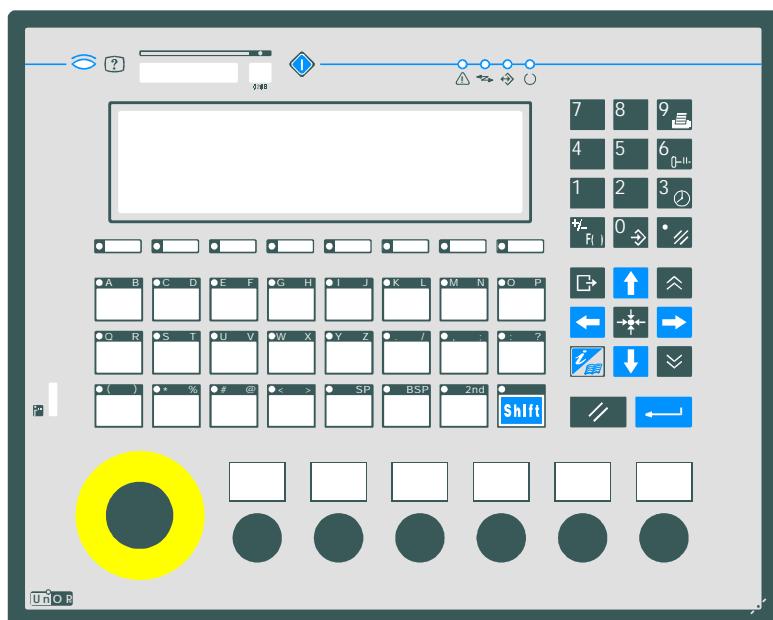


UniOP MKDG-07

HMI unit with monochrome graphic display, ASCII keyboard and ready to house electromechanical devices provided by the user.

Highlights

- **Monochrome graphic display**
- **8 rows, 40 columns of text**
- **Downloadable fonts**
- **Scalable text**
- **ASCII keyboard**
- **Ready to house electromechanical devices provided by the user**
- **Multilanguage project capability**
- **Connection to bus systems**
- **New plastic bezel with flat design**



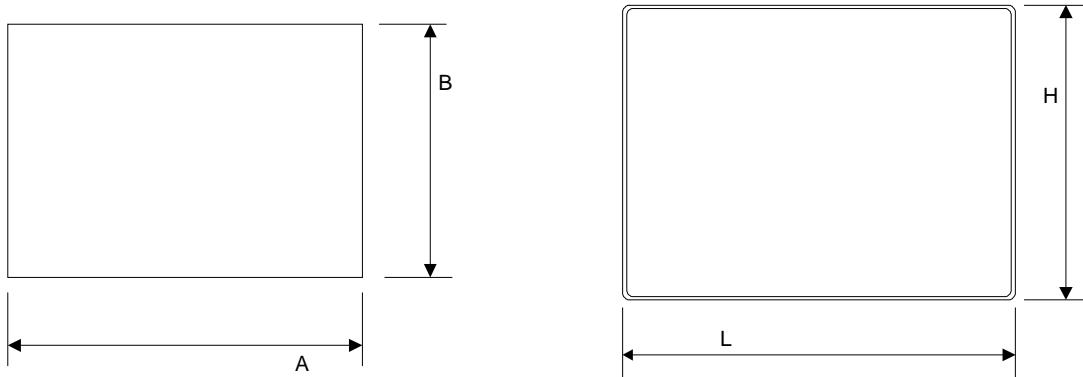
Technical data

Display	Monochrome LCD
Backlight	LED
Graphics	240x64 pixels
Display dimensions	127x34 mm
Rows/columns	8x40
Character height	
Scalable fonts	Yes
User definable characters	256
Contrast regulation	Software
User memory	128 KB (32 KB reserved to the protocol)
User memory expansion	512 KB
Function keys	23
System keys	24
Touch screen	No
User LEDs	32
System LEDs	5

PC/Printer port	Yes
PLC port	RS-232, RS-422, RS-485, CL 20 mA
Aux port (fieldbus connection)	Yes, with optional module
External keyboard port	No
Programming speed	9600 ÷ 38400 bps
Page size	32 rows
Number of variables per page	Unlimited
Recipe memory	16 KB
UniNet network	Client/Server
Alarms	1024
Event list	256
Alarm info page	Yes
Password	Yes
Battery	Yes
Hardware RTC	Yes
Screen saver	No
Buzzer	No
Fuse	2 A (user replaceable)
Power supply voltage	18 ÷ 30 VDC
Max power consumption at 24VDC	~ 400 mA
Max panel thickness	5 mm
Weight	~ 2 Kg
Operating temperature	0 ÷ +50 °C
Storage temperature	-20 ÷ +70 °C
Operating and storage humidity	5 ÷ 95 % UR non-condensing
Protection class	IP65 (front panel)

Front dimensions and cutout

Front dimensions LxH	275x220 mm	10.83x8.66 "
Cutout AxB	262x207 mm	10.31x8.15 "
Cutout depth – version -0045	76 mm	2.99 "
Cutout depth – version -0050 (Snap-top)	80.7 mm	3.18 "
Mechanical keys	1 x Ø 22mm, 6 x Ø 16mm	1 x Ø 0.86", 6 x Ø 0.63"



Industrial Monitors

MON Family



- 10.4" to 15.0" Display Sizes
- Clear Resistive Touchscreen
- Stainless Steel Bezel
- Resolutions from VGA to XGA
- NEMA 4/4X/12 and CE Compliant
- Operating Temperature up to 50 C
- Powered by 24 VDC

The MON industrial monitor is designed to meet the most rugged application needs, while providing the power and performance that you expect from a high-end desktop system. Standard features include a stainless steel bezel, a clear resistive touchscreen, and an analog video input with a 1 volt peak-to-peak signal. All MON products require a 24 VDC power input.

MON products are available with 10.4" and 15.0" displays. The displays have CCFT tubes with an average life ranging from 20,000 hours to 50,000 hours of continuous operation, depending upon the model. As well as standard CE and NEMA 4/4X/12 compliances, the MON products have been tested to IEC 68-2-27, IEC 68-2-6 and Mil-Std-8100 standards.

Each and every MON unit has been designed for and built for use in a harsh, dirty environment. Once a MON is assembled, it is subjected to 72 hours of burn-in testing at 50°C. During this period of time, the MON is having a vast array of tests applied to it to insure that it will perform as well in your factory environment as it does in ours. Only after this testing period will any MON be approved for customer use.

Environment

Operating Temperature 0 - 50° C
 Humidity 0% - 95% non-condensing
 Operating Power 24 V DC, 3 A nominal ($\pm 10\%$)

Touchscreen Properties

Type Clear resistive
 Resolution 4096 x 4096 matrix

15.0" Display Characteristics – MON-15X

Resolution.....	1024 x 768
Dot Pitch.....	0.300 mm ²
Brightness (NITS)	250 cd/m ²
Backlight Life.....	50,000 hours
Number of Colors.....	256K
Horizontal Viewing Angle	85° Left / 85° Right
Vertical Viewing Angle.....	85° Up / 85° Down

Physical Characteristics

Bezel Height.....	12.690"
Bezel Width.....	15.560"
Cutout Height	11.800"
Cutout Width.....	14.700"
Unit Depth	4.080"

10.4" Display Characteristics – MON-10/10S

Resolution.....	640 x 480 (MON-10) / 800 x 600 (MON-10S)
Dot Pitch.....	0.330 mm ²
Brightness (NITS)	200 cd/m ²
Backlight Life.....	20,000 hours
Number of Colors.....	256K
Horizontal Viewing Angle	70° Left / 70° Right
Vertical Viewing Angle.....	45° Up / 50° Down

Physical Characteristics

Bezel Height.....	10.060"
Bezel Width.....	11.810"
Cutout Height	9.200"
Cutout Width.....	10.930"
Unit Depth	3.710"

MON Ordering Information

Description	Part Number
10.4" MON with VGA Resolution	MON-10
10.4" MON with SVGA Resolution	MON-10S
15.0" MON with XGA Resolution	MON-15X

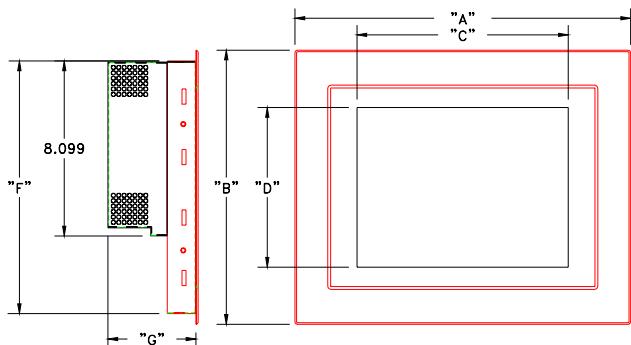
For example, a 15.0" Monitor would be ordered as:

- MON-15X

Warranty

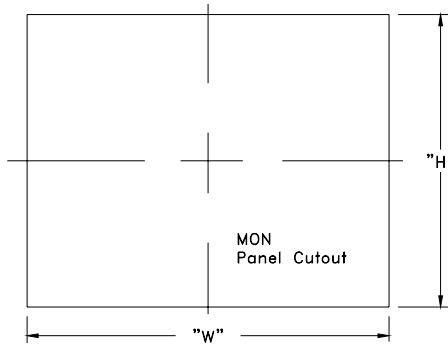
All products are warranted for one year from date of shipment against defects in material and workmanship.

Frontal and Side View Drawings



Display Size	A	B	C	D	F	G
10.4	11.81	10.06	8.60	6.57	9.06	3.71
15.1	15.56	12.69	12.26	9.19	11.69	4.08

Cutout Drawing



Display Size	W	H
10.4	10.93	9.20
15.1	14.70	11.80

Specifications subject to change without notice

Industrial Computers

XLIN Family



The XLIN industrial computer is designed to meet the most rugged application needs, while providing the power and performance that you expect from a high-end desktop system. Standard features include a Pentium M 1.5 GHz processor, clear resistive touchscreen, selectable 10/100-Base-T Ethernet port, RS-232 serial port, parallel port, PS/2 mouse/keyboard port and analog video out port. An integrated floppy drive and/or CD ROM drive can be included for simplified program loading. The Pentium M 1.5 GHz CPU has comparable benchmarks to an Intel Pentium 4 2.8 GHz processor.

TFT display is available in 15.0" with XGA resolution. The XLIN products are CE compliant, as well as NEMA 4/4X compliant when properly mounted in a correspondingly rated enclosure. The XLIN family also offers compatibility with VDE 0871 standards for EMI/RFI, as well as IEC 801 standards for ESD.

Each and every XLIN unit has been designed for and built to use in a harsh, dirty, computer-unfriendly environment. Once an XLIN is assembled, it is subjected to 72 hours of burn-in testing at 50°C. During this period of time, the XLIN is having a vast array of tests applied to it to insure that it will perform as well in your factory environment as it does in ours. Only after this testing period will any XLIN be approved for customer use.

- Stainless Steel Enclosed System
- NEMA 4/4X, CE and UL Compliant
- Windows 2000, XP Operating System
- 15.0" LCD TFT Display
- Pentium M 1.5Hz Processor
- Slots – 4 PCI OR 2 PCI & 2 ½-Size ISA
- Hard Drive or Compact Flash Media
- 256 MB RAM Expandable to 1 GB RAM
- Intel 10/100/1000 Gigabit Ethernet Port
- Clear Resistive Touch screen
- One RS-232 Port
- Two USB 2.0 ports
- PS/2 Mouse/Keyboard Port
- Analog Video Out Port
- 64 Mb Intel Extreme Graphic 2 Video
- Optional Integral Floppy Drive and/or CD ROM Drive

Specifications

Environment

Operating Temperature..... 0 - 50° C
 Humidity..... 0% - 95% non-condensing
 Operating Power..... 24 V DC, 4 A nominal ($\pm 10\%$)

Touchscreen Properties

Type..... Clear resistive
 Resolution..... 4096 x 4096 matrix

15.0" Display Characteristics

Type.....	TFT
Resolution.....	1024 x 768
Dot Pitch.....	0.300 mm ²
Brightness (NITS)	250 cd/m ²
Backlight Life.....	50,000 hours
Number of Colors.....	256K
Horizontal Viewing Angle	85° Left / 85° Right
Vertical Viewing Angle.....	85° Up / 85° Down

Physical Characteristics - 15.0" Display

Bezel Height.....	12.69"
Bezel Width.....	15.56"
Cutout Height	11.80"
Cutout Width.....	14.70"
Unit Depth.....	4.58"
Unit Weight.....	9.5 lbs

XLIN Ordering Information

Description	Part Number
15.0" XLIN	XLIN-15.0

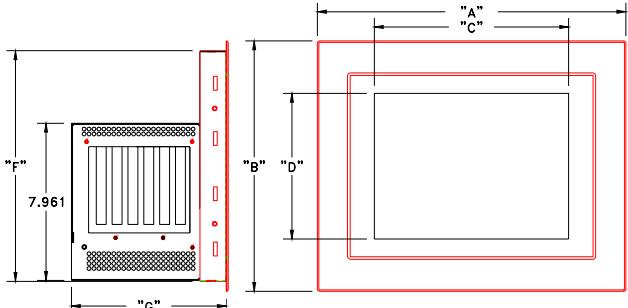
Operating System Ordering Information

Description	Part Number
Windows 2000	WIN-2000
Windows XP	WIN-XP

Storage Media Ordering Information

Description	Part Number
Hard Drive (minimum of 20 GB)	HD
256 MB Compact Flash	CF-256
512 MB Compact Flash	CF-512
1 GB Compact Flash	CF-1024

Frontal and Side View Drawings



Display Size	A	B	C	D	F	G
15.0	15.56	12.69	12.26	9.19	11.69	8.07

Additional Memory Ordering Information

Description	Part Number
Memory Total of 256 MB RAM	M256
Memory Total of 512 MB RAM	M512
Memory Total of 1024 MB RAM	M1024

Optional Hardware Ordering Information

Description	Part Number
Integrated Floppy Drive	FL1.44
Integrated CD ROM Drive	CD-ROM

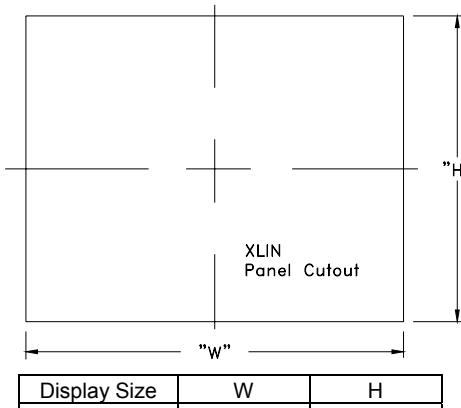
For example, a 15.0" XLIN with Windows 2000, 256 MB RAM, a hard drive and an integrated floppy drive would be ordered as:

XLIN-15.0-WIN-2000-HD-M256-FL1.44

Warranty

All products are warranted for one year from date of shipment against defects in material and workmanship.

Cutout Drawing



Display Size	W	H
15.0	1470	11.80

Specifications subject to change without notice

EXOR