



10"

10" Operator Panel

-10.1" wide TFT LCD
-1024x600 resolution (16 display colors)

7"

7" Operator Panel

-7" wide TFT LCD
-800x480 resolution (260,000 display colors)

proop Professional Operator Panel

Process Visualisation / Control,
Remote Visualisation / Control,
Analogue Inputs / Outputs,
Digital Inputs / Outputs,

- High memory and storage capacity
- USB Host ports for keyboard, mouse and USB memory
- Project download and upload via USB
- Industry standard communication networks ;
 - (RS232,RS422,RS485, Ethernet physical interfaces)
 - MODBUS, ASCII, RTU , TCP Communication protocols
 - Siemens S7-200/300/400 PLC Protocol support
- User-friendly HMI designer



Standard Product Order Codes

7" TFT Operator panels

light

proop-7L

2x USB + 2x RS232 + 1x RS485

proop-7L.E

2x USB + 2x RS232 + 1x RS485 + 1x Ethernet

control

proop-7C

2x USB + 2x RS232 + 1x RS485

4x Digital Inputs + 4x Digital Outputs

proop-7C.E

2x USB + 2x RS232 + 1x RS485 + Ethernet

4x Digital Inputs + 4x Digital Outputs



10.1" TFT Operator panels

light

proop-10L

2x USB + 2x RS232 + 1x RS485

proop-10L.E

2x USB + 2x RS232 + 1x RS485 + 1x Ethernet

control

proop-10C

2x USB + 2x RS232 + 1x RS485

5x Digital Inputs + 4x Digital Outputs

proop-10C.E

2x USB + 2x RS232 + 1x RS485 + Ethernet

5x Digital Inputs + 4x Digital Outputs

process

proop-10P.0.D5.D4.AC.AC

2x USB + 2x RS232 + 1x RS485

5x Digital Inputs + 4x Digital Outputs

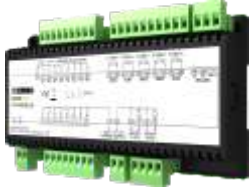
2x 4...20mA Analogue Inputs + 2x 4...20mA Analogue Outputs

proop-10P.E.D5.D4.AC.AC

2x USB + 2x RS232 + 1x RS485 + 1x Ethernet

5x Digital Inputs + 4x Digital Outputs

2x 4...20mA Analogue Inputs + 2x 4...20mA Analogue Outputs

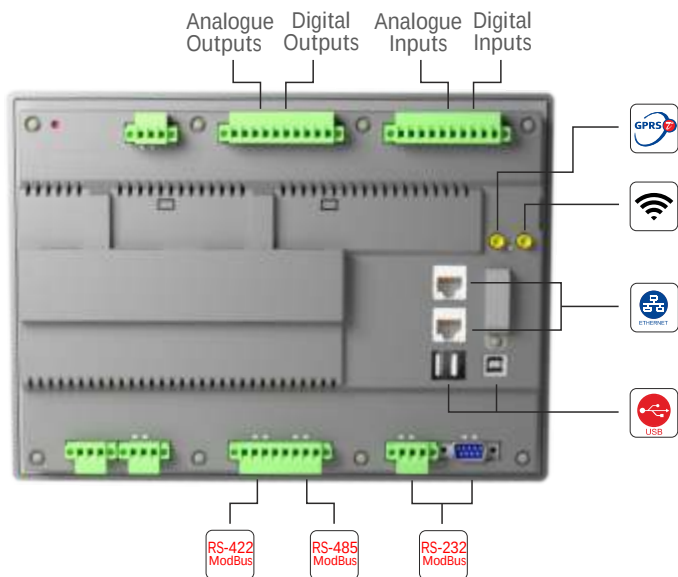


professional

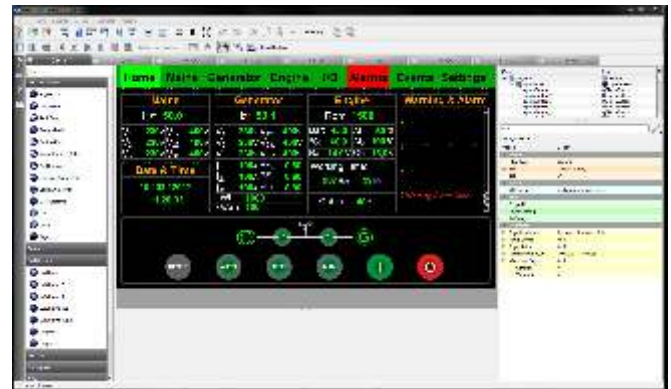
Product Type	A	B	C	D	E	F
proop-I/O.P	2	2	1	3		
Supply						
24Vdc/Vac (Insulated)	2					
Communication						
RS-485 (Insulated)		2				
Digital Inputs						
8x Digital			1			
Digital Outputs						
8x 10A Transistor (+V)				3		
Analogue Inputs						
5x Pt-100 (-200...650°C)					1	
5x 0/4...20mAdc					2	
5x 0...10Vdc					3	
5x 0...50mV					4	
Analogue Outputs						
2x 0/4...20mAdc					1	
2x 0...10Vdc					2	

Bemak

Product Codes	proop-7L	proop-7L.E	proop-7C	proop-7C.E	proop-10L	proop-10L.E	proop-10C	proop-10C.E	proop-10P
Display type	7" wide TFT LCD				10.1" wide TFT				
Display Colors	260K colors				16M colors				
Resolution	800 x 480				1024 x 600				
LCD Backlight	LED Backlight								
Touch method	Resistive Analog								
Luminance (cd/m ²)	300				270				
Backlight life (hours)	min. 50000 hours at 25°C				min. 50000 hours at 25°C				
MCU	ARM Cortex-A7, 528MHz				ARM Cortex-A9, 800MHz				
Flash Memory	4 GB								
RAM	512 MB DDR3 SDRAM								
Buzzer	>= 85 dB								
USB Client	1x USB 2.0								
USB Host	1x USB 2.0								
Serial Com-1	RS-232 (DB-9 socket)								
Serial Com-2	RS-232 (Terminal)								
Serial Com-3	RS-485 (Terminal)								
Ethernet	N/A	10/100 Mbps	N/A	10/100 Mbps	N/A	10/100 Mbps	N/A	10/100 Mbps	10/100 Mbps
Digital Inputs	N/A		4x Digitals		N/A		5x Digitals		
Digital Outputs	N/A		4x Digitals		N/A		4x Digitals		
Analog Inputs	N/A								2x 4...20mA or 0...10Vdc or 0...50mV or Pt-100
Analog Outputs	N/A								2x 4...20mA or 0...10Vdc
Real time clock (RTC)	Built in								
Operating Voltage	18...30Vdc								
Power consumption	6 W				8 W				
RTC Battery	CR2032 button cell lithium battery, 3V (removable)								
RTC Battery life	5 years								
Operating temperature	0...50°C								
Storage temperature	-20...60°C								
Operating Humidity	0...90%RH (non condensed)								
Dimensions	206 x 152 x 50 mm				278 x 200 x 50 mm				
Panel Cut-out	190 x 136 mm				258 x 180 mm				
Weight	700 g				1300 g				



HMI Programming Software



- Graphics / Visual Features
(Over 100 vector-based prefabricated elements)
- Font Support for FreeType and Windows
- Regional Directory Support for Time, Date, and Number Formats
- User Friendly EMKO Script Language
- Online / Offline Simulation Mode

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