The Smart Screen's C-programmability provides the flexibility required for almost any display application. The Smart Screen is ideal for remote terminals, automated machinery, and control systems.

Features

- 1/4 VGA display (320 x 240 pixels)
- Touch screen matrix
- Vertical or horizontal orientation
- Wide viewing angle
- 16 digital I/O
- Meets NEMA 4 water resistance

The OP7100 touch screen display features a blue-on-white graphic LCD (320 x 240 pixels). The intelligent Smart Screen, with its abundant memory, can store large amounts of data and perform complex computations. The Smart Screen's RS-232 interface allows it to be used with virtually any computer system. A total of 16 digital I/O are available–8 CMOS/TTL-level inputs and 8 CMOS/TTL-level outputs. Use the OP7100 with its touch screen or the OP7110 with your own keypad for a full user interface.
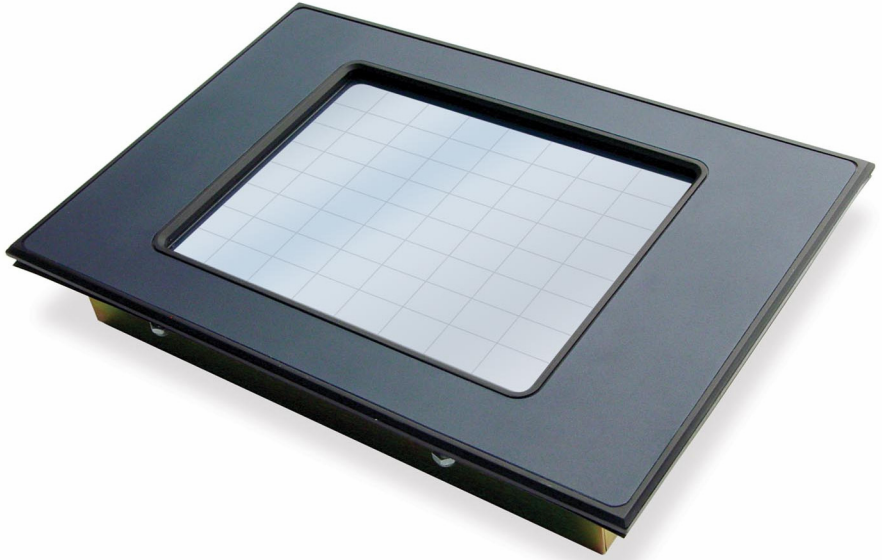
Horizontal or vertical orientations are user selectable in software. Software also controls the screen contrast and CCFL backlighting to enhance visibility and provide visual feedback. Software included with the Smart Screen provides three fonts (small, medium, and large) but additional fonts in any language can be defined, as well as symbols and icons. Up to 50 images can be stored in Flash memory for immediate recall. Software can divide the display into up to 8 x 8 independent regions, each of which can scroll or remain stationary. Reverse, outlined, or blinking attributes can be applied to each region, and graphics and text can be mixed. When front-panel mounted, the Smart Screen meets NEMA 4 water-resistance compliance standards, making it suitable for use in harsh environments.

Programming the Smart Screen

Programs are developed using Z·World's industry-proven Dynamic C® 32 software development system. An extensive library of drivers and sample programs is provided. For ease of use, Dynamic C includes a powerful Graphics Engine that allows easy downloading of pre-drawn bitmaps and use of pre-defined and user-defined macros. The Graphics Engine also provides complete remote control of Smart Screen functionality via RS-232 interface.

OP7100 Smart Screen Specifications

Features	OP7100	OP7110
Microprocessor	Z180 at 18.432 MHz	
Flash	512K (2 x 256K) + 32K VRAM	
SRAM	128K (standard)	
Backup Battery	Socketed 3 V lithium coin-type, 256 mA·h, supports RTC and SRAM	
Keypad/Display	8 x 8 touchscreen	No Touchscreen
	STN, 320 x 240 pixels, blue-on-white background. Pixel matrix is 4.53" x 3.40" (115 x 86 mm)(0.36 mm pitch). Viewing area is 4.76" x 3.58" (121 x 91 mm). Adjustable contrast with automatic temperature compensation. CCFL backlight with software control.	
Digital Inputs	8 CMOS/TTL-level, -2.0 V DC to +7.0 V DC	
Digital Outputs	8 CMOS/TTL-level, 6 mA max.	
Serial Ports	Two 3-wire RS-232, or one 3-wire RS-232 and one RS-485, or one five-wire RS-232	
Serial Rate	57,600 bps max.	
Connectors	DB9, 34-pin header, 5-terminal screw block	
Real-Time Clock	Yes	
Watchdog/Supervisor	Yes	
Power	10-30 V DC 4.5 W with backlight on, 1.5 W with backlight off	
Operating Temp.	0-50°C	
Humidity	25-65%, non-condensing	
Bezel Size	8.0" x 5.4" x 0.25" (203 x 137 x 6 mm)	
Pricing (qty. 1/100) Part Number	$549 / 450 101-0303	$511 / 419 101-0732
Tool Kit Part Number	$350 U.S. / Int'l 101-0306	

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