Micro Human Machine Interface

XGT Panel

Next Generation Micro HMI with Various Displays

COMPACT

Automation Equipment

LS Industrial Systems
www.lsis.biz

93mm

150mm

HMI Innovation!

Minimum-sized XGT Panel

Programming Innovation
Due to full-featured GUI programming tool, anybody can configure a system easily.

Low-Cost Innovation
LSIS know-how-driven high functions reinforce your cost-competitiveness with economic HMI.

Performance Innovation
High functions and reliability beyond the limit of general compact-sized HMIs can realize system operation at its maximum

When you use **XGT Panel,**
you are to experience the followings:

Wire Reduction

Replacing complicated wiring by communication line, it is a lot easier to do maintenance work.

Control Panel Downsizing

Thanks to XGT Panel functioning data display, input, output switch and lamp, control panel downsizing is accomplished.

Cost Down

Since I/Os and analog signals are managed by communication, PLC modules and other related equipment would be needless.

Enhancing User-friendliness

- Flexible to draw: 192 X 64 Dot Graphic LCD
- Easy to upgrade: O/S and font download
- Various tag/drawing functions support: 15 types
- Easy to manage data: internal memory (1000 words) support
- User-defined function keys support for each screen (F1~F4, ◀, ▶, ▲, ▼)
- User-defined bitmap file input support
- Region-based upload/download support
- Built-in RTC: B Type
- Large screen memory: 256K

Flexible to supply power

- 5V supply by loader port for LS PLC and INV connection
- DC 24V supply from DC 24V input terminal

Language support

- English, Chinese, Korean
- Font-download adoption support

Strong communication functions

- Separate 2Ch support: RS-232C and RS-422/485
- Multi master communication (N:M) support
 - Monitoring M PLCs with N GLOFA PANELs

Handy Monitoring Function

Thanks to 5V power supply through the loader port (LS PLC and LS VFD within 2 meters), XGT Panel runs without external DC24V. XGT Panel is portable and easy to configure and maintain.
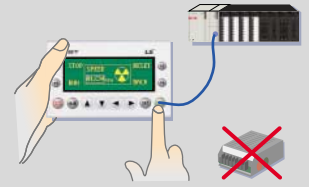
Long-life backlight LED adoption

Low current consumption of LED backlight enables no need of backlight exchange, lengthening product life and convenient maintenance (It would be susceptible to installing conditions and environment).
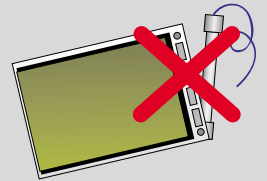
Various communication modes and protocol driver supply

- LS PLC: loader and link (Cnet)
- LS VFD: loader (iS5/iP5(A)/iV5) and RS-485
- MODBUS ASCII/RTU protocol
- Mitsubishi FX series
- OMRON C-mode protocol
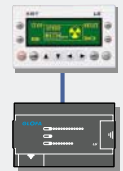- * Communication drivers are added and updated.

neXt
Generation
Technology

One step upgraded system with XGT Panel enhances your competitiveness.

Efficient

Easy

Economic

System Functions

1:1 configuration

Basic 1:1 configuration using RS-232C/RS-422/485
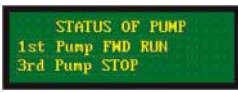
Application System

Unit Equipment

Used in textile, packaging, injection machines

Main Functions — XGT Panel

Digit Tag
Data input and display

Message Display Tag
Changeable message display for each device value

Lamp Tag
Lamp display (circle and square)

Graph Tag
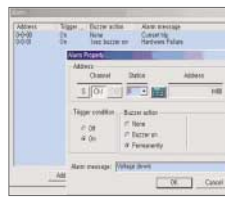Variable graph display such as bar, trend, and pie graph.

Rotate/Move Tag
Dynamic expression of object according to device value

BITMAP Display
Easy registration and display of bitmap file in 192×64 (max.)
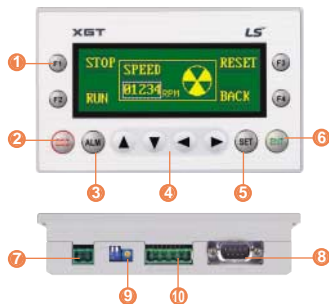
Alarm Record Management
Immediate alarm display concerning system errors (history record: up to 20)

Reservation
Using RTC functions, taking a certain action according to designated time (schedule: up to 20)

Appearance and Functions — XGT Panel

1 Function keys: Bit/Drive Out/Increment/Decrement/Screen
2 ESC: Input Cancelling   3 ALM: Alarm History
4 Arrow Keys: Bit/Drive Out/Increment/Decrement/Screen
5 SET: PLC Data Input Set-up   6 ENT: PLC Data Input ENTER
7 DC24V Power Supply
8 RS-232C port for downloading/communication
9 Screen Luminance Adjustment Set-up   10 RS-422 Port

Easy Drawing Tool — Panel Editor

■ **Easy Programming**
One click on tag for instant drawing and editing

■ **Print Function**
Each screen print function support: available from version 1.1

■ **Drawing Tool**
Enhanced user-friendliness by diverse drawing functions (line, circle, square, etc)

■ **Simple Memory Management**
Easy recognition of the current memory usage

■ **Direct Device Input**
Directly inputting device name

■ **Snap/Align functions**
Enhanced drawing easiness: snag and align functions

1:2 or 1:N configuration

RS-485
RS-232C
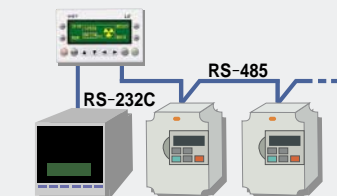
1:2 or 1:N configuration (separate channel): Using two separate communication ports

N:1 configuration

RS-485
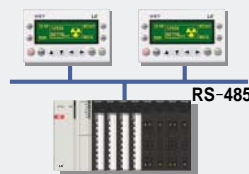
Thanks to multi-master function, XGT Panels can control and supervise one single system.

N:M configuration

RS-485
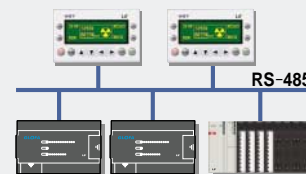
XGT Panels can control different devices of which protocol is equal.

VFD Loader

Used as graphic loader.
Regarding LSIS VFD connection, an extra loader cable will do within 2 meters.

Building Automation Equipment

Used to monitor/control data in automatic parking system, HVAC, elevators, etc.

Process Automation

Used to configure a supervisory system (water treatment).

Specifications

Performance specifications

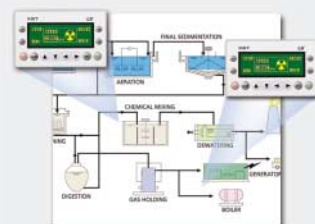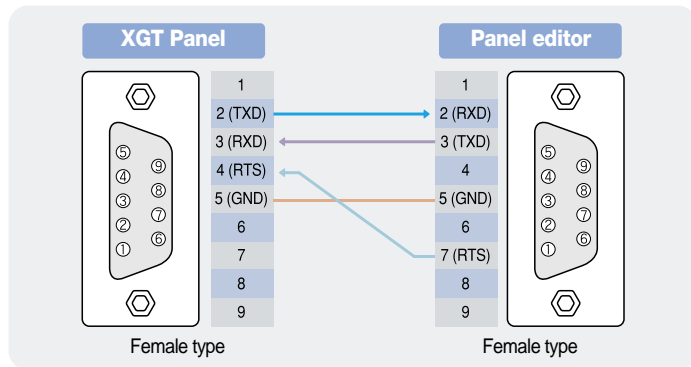| Item	Specifications		Remark
	XP10BKA/DC	XP10BKB/DC	
Input power	4.9~5.1VDC (RS-232C connector), 21.6V~26.4VDC (Power supply connector)		
Display	LED Back-light (192 × 64 Dot)		
Communication Interface	RS-232C, RS-422/485		Separate 2 channels
Memory	256K		
Languages	English, Chinese, Korean		
RTC	None	Supports	
Up/Download spec.	Speed 115,200bps Each memory area can be up/downloaded in part		
Keys	12keys (F1~F4, ESC, ALM, ▲, ▼, ◀, ▶, SET, ENT)		
System memory — User area	M000~M899 (900 words)		Latch area is supported, in XP10BKB/DC
System memory — System fiags	M900~M999 (100 words)		

Cable connection for program downloading

XGT Panel		Panel editor
1		1
2 (TXD)	→	2 (RXD)
3 (RXD)	←	3 (TXD)
4 (RTS)		4
5 (GND)	—	5 (GND)
6		6
7		7 (RTS)
8		8
9		9

Female type   Female type

General specifications

Item	Specifications		Standard
Operating temperature	0℃~+40℃ (32℉~104℉)		
Storage temperature	-10℃~+50℃ (14℉~122℉)		
Operating humidity	5~95%RH, non-condensing		
Storage humidity	5~95%RH, non-condensing		
Vibration	Occasional vibration	Sweep count	IEC61131-2
	Frequency / Acceleration / Amplitude	10 times in each direction for X, Y, Z	
	10≤f<57Hz / - / 0.075mm		
	57≤f≤150Hz / 9.8㎧² / -		
	Continuous vibration		
	Frequency / Acceleration / Amplitude		
	10≤f<57Hz / - / 0.0375mm		
	57≤f≤150Hz / 4.9㎧² / -		
Shocks	Maximum shock acceleration: 147㎧² {15G} Duration time: 11ms Pulse wave: half sine wave pulse		IEC61131-2
Noise immunity — Square wave impulse noise	±500V		LSIS Standard
Noise immunity — Electrostatic discharge	Voltage: 4kV (contact discharge)		IEC61131-2, IEC1000-4-2
Noise immunity — Radiated electromagnetic field	27~500MHz, 10V/m		IEC61131-2. IEC1000-4-3
Noise immunity — Fast transient /Burst noise	Voltage 1kV/ 0.25kV		IEC61131-2, IEC1000-4-4
Atmosphere	Free from corrosive gases and excessive dust		
Altitude for use	Up to 2,000m		
Pollution degree	2 or lower		
Cooling method	Air-cooling		

Line-up

Part number	Specifications
XP10BKA/DC	4.1″, Mono, RS-232C, RS-422/485
XP10BKB/DC	4.1″, Mono, RS-232C, RS-422/485, RTC

Communication drivers to support

Item		Device	Driver	
LS	PLC	MASTER-K	LOADER	LINK (CNET)
		GLOFA-GM	LOADER	LINK (CNET)
	INV	SV-iC5	-	MODBUS
		SV-iG5/iG5A	-	RS-485, MODBUS
		SV-iS5	LOADER	RS-485, MODBUS
		SV-iP5/iP5A	LOADER	RS-485, MODBUS
		SV-iV5	LOADER	-
		SV-iH	-	RS-485

Others	MITSUBISH FX Series		
	OMRON C-mode		
MODBUS	Master	RTU	ASC
	Slave	RTU	ASC

* Drivers are continually updated

Dimensions

(Unit: mm)

Cutting Size: 141 (W) X 85 (H)

Cable connection

Program download cable

PC   XGT Panel
Female   Female

LS PLC loader (SV)

XGT Panel   PLC
Female   Male

LS PLC built - in Cnet (SV)

XGT Panel   PLC
Female   Male

Cnet I/F module

XGT Panel   PLC
Female   Male
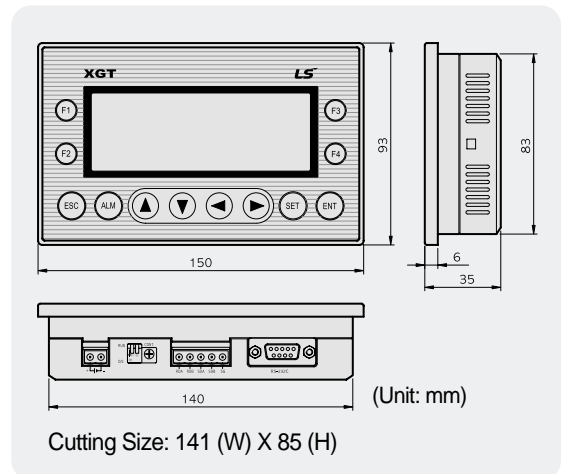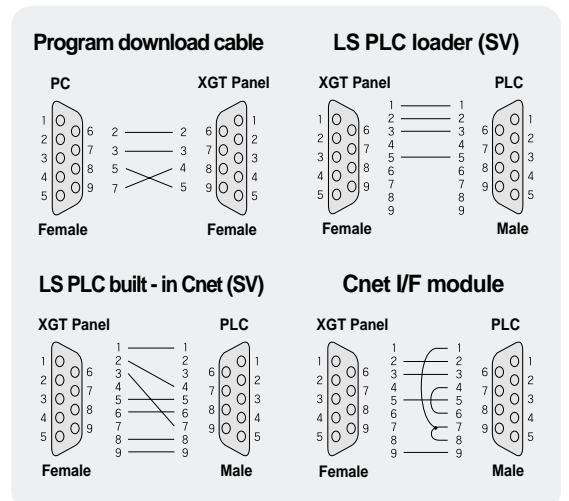
* For more information, refer to user's manual

Leader in Electrics & Automation

⚠ **Safety Instructions**

- For your safety, please read user's manual thoroughly before operating.
- Contact the nearest authorized service facility for examination, repair, or adjustment.
- Please contact qualified service technician when you need maintenance.
  Do not disassemble or repair by yourself!
- Any maintenance and inspection shall be performed by the personnel having expertise concerned.

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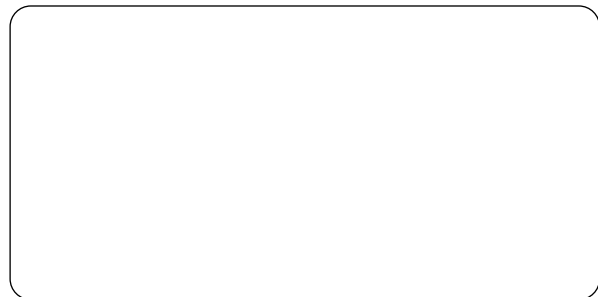
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