FCL COMPONENTS

FCL Components Thermal Printer
FTP-62GUSL001
FTP-62GUSL101
(High Speed)

FCL Components 2" high speed (170mm/s) thermal printer unit with cutter option

Overview

The FTP-62GUSL series thermal printer (driven by 24VDC) provides high speed printing (170mm/s) for 2-inch wide paper.

The series is suitable for a variety of applications, such as POS/ECR, kiosk terminals, ticket machines, banking machines, measuring devices, medical equipment, etc.

Features

- High-speed printing
  It can print at 170mm/s (1,360 dotlines/s) maximum by using FCL Components' unique head drive control
- FCL Components' unique platen release mechanism
- Auto Cutter
  Full cut or partial cut commands available. FCL unique jam free mechanism allows easy maintenance when jam occurs.
- Compact size
  FTP-62GUSL001: Depth: 93mm, width: 92mm, height: 115.4mm
  FTP-62GUSL101: Depth: 96.3mm, width: 97.2mm, height: 119mm
- High resolution
  8 dots/mm head provides clear print out
- RoHS compliant

FTP-62GUSL001

FTP-62GUSL101

■ Part numbers

Item		Part Number
Printer unit	Panel mount	FTP-62GUSL001 (Japanese/ Traditional Chinese font types)
	Metal frame	FTP-62GUSL101 (Japanese/Traditional Chinese font types)
Interface cable	USB	FTP-62GY311#01
	RS-232C	FTP-62GY302
Power supply cable	Logic, head, motor	FTP-629Y603

■ Driver software

Item	Operating system
Driver	Windows® 10 64bit, Windows 11 64bit, Linux*1
SDK	OPOS, Android

*1: Linux drivers are are available to our customers by request; please contact us for details.
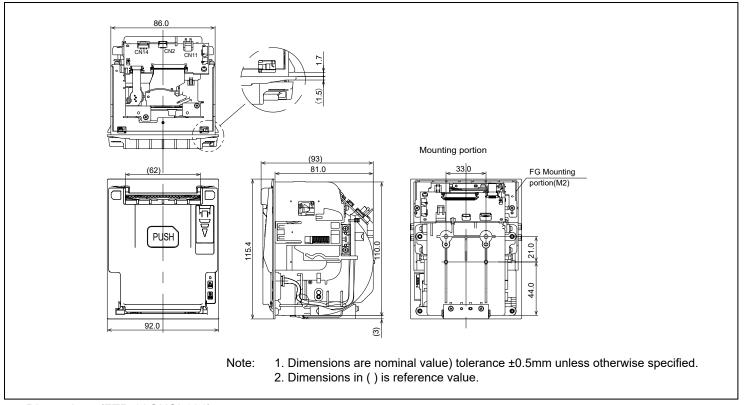
■ Specifications

Item		Specifications	
Part number		FTP-62GUSL001	FTP-62GUSL101
Printing method		Thermal sensitive line dot method	
Dot structure		432 dots/lines	
Dot pitch (horizontal)		0.125mm (8 dots/mm) - Dot density	
Dot pitch (vertical)		0.125mm (8 dots/mm) - Line feed pitch	
Effective printing area		54mm	
Number of columns		ANK 36 columns/line (12 x 24 x dot font)	
Paper width		58mm +0/-1	
Paper thickness		60-100μm*1	
Paper roll diameter		Max. Ø83mm	
Cutting type		Full or partial	
Printing speed		170mm/s (1,360 dot lines/s)	
Print mode		Line / page	
Character types	Alphanumeric KANA	159 types	
	International and special	195 types	
	OCRI	103 types	
	OCRIII	23 types	
	OCRIV	103 types	
	Extended numeric	12 types	
	Thai code 18	128 types	
	Download	224 types	
	External characteres	94 types	
	JIS KANJI	6,879 types	
	Traditional Chinese (big5)	13, 503 types	
Font		ANK, Thai, JIS KANJI, Traditional Chinese	

*1: There may be exceptions

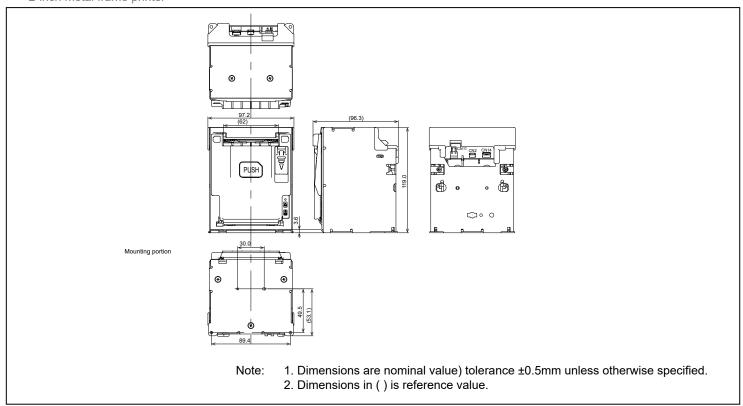| Item		Specifications	
Part number		FTP-62GUSL001	FTP-62GUSL101
Bar codes	1D	UPC-A, UPC-E, JAN(EAN)13, JAN(EAN)8, CODE 39, ITF, CODABAR, CODE128, GS1 DataBar-14, GS1 DataBar-14 Truncated, GS1 DataBar Limited	
	2D	QR Code, GS1 DataBar-14 stacked, GS1 DataBar-14 Omnidirectional, GS1 DataBar-14 Expanded, PDF-417	
Bit images	Size	Horizontal: 8 to 432 dots, vertical: 1 to 1,023 dots	
	Modification	Black/white reversible	
Download images	Size	Horizontal: 8 to 432 dots, vertical: 1 to 512 dots (memory: 192KB)	
	Modification	Black/white reversible, horizontal x 2, vertical x 2, x4, upside down	
Download character		8x16 ANK, 12x24 ANK, 16x16 ANK, 24x24 ANK, 16x16 KANJI, 24x24 KANJI	
Detection functions		Marks, no paper, thermal head temperature irregularity, power voltage irregularity, platen open, cutter irregularity, transmission data irregularity, blowout of fuse, hardware irregularity, MCU operation irregularity, thermal head's thermal runaway, thermal head cable drop, non-volatile memory registration error, RAM irregularity	
Character modification		Horizontal tab, under line, black-white reversed, positional alignment, line spacing, character spacing, font type, font size, code table, 90° clockwise rotation	
Interface standard		RS-232C, USB Ver.2.0 (Full Speed)	
Reset		Reset with software	
Character dimensions (W x H), number of characters		8 x 16 dots, 54 columns, ANK 12 x 24 dots, 36 columns, ANK 16 x 16 dots, 27 columns, ANK 24 x 24 dots, 18 columns, ANK	24 x 40 dots, 18 columns, OCRI 24 x 48 dots, 18 columns, OCRII 36 x 60 dots, 12 columns, OCRIV 24 x 48 dots, 18 columns, large numeric
Power voltage		24VDC ±10%	
Power current	Logic	0.1A max.	
	Thermal head	1.5A max. (at 24V, print ratio 12.5%)	
	Paper feed motor	1.5A max.	
	Cutter motor	1.5A max.	
Dimensions (WxDxH)		92.0 x 93 x 115.4mm	97.2 x 96.3 x 119.0mm
Weight		336g	700g
Expected life	Head	Pulse durability: 100 million pulse/dot (using FCL Components' standard driving method) Wear resistance: 100km (at 12.5% print ratio)	
	Cutter	1,000,000 cuts min.	
Environmental conditions	Operating temperature	0°C to +50°C (guaranteed, print quality assurance: +5°C to +40°C)	
	Operating humidity	20 to 85% RH (no condensation)	
	Storage temperature	-20°C to +60°C (excluding paper)	
	Storage humidity	5 to 90% RH (no condensation)	
Detection functions	Head temperature	By thermistor	
	Paper out/Mark detect	By photointerrupter	
	Head release	By slide switch	
Recommended thermal sensitive paper	High sensitive paper	TF50KS-E45 (Nippon paper)	
	Standard paper	TF-60KS-E (Nippon paper), PD150R (Oji paper)	
	Medium term paper	TP-60KS-F1 (Nippon paper)	
	Long term paper	PD160R (Oji paper), TF50KJ-R (Nippon paper), HA220AA (Nippon paper)	
MTBF	Mechanism	3,000 hours	
	Control board	500,000 hours	

■ Dimensions (FTP-62GUSL001)

• 2-inch panel mount printer

Mounting portion

86.0

CN14 CN2 CN11

1.7

(1.5)

(93)
81.0

(62)

115.4

110.0

PUSH

92.0

(3)

33.0

FG Mounting portion(M2)

21.0

44.0

Note: 1. Dimensions are nominal value) tolerance ±0.5mm unless otherwise specified.
2. Dimensions in ( ) is reference value.

■ Dimensions (FTP-62GUSL101)

• 2-inch metal frame printer

97.2
(62)

(96.3)

119.0

CN11 CN2 CN14

PUSH

3.6

Mounting portion

30.0

49.5
(53.1)

89.4

Note: 1. Dimensions are nominal value) tolerance ±0.5mm unless otherwise specified.
2. Dimensions in ( ) is reference value.

■ Connector for power supply
- Connector for Logic, Head, Motor Power supply (CN11)
  Mating connector part number: VHR-2N (J.S.T). or equivalent

No.	Signal	I/O	Content	No	Signal	I/O	Content
1	Vp	I	+24V power	2	GND	-	Ground

■ RS-232C standard
  Connector (CN2)
  Mating connector part number: SHR-05V-S (J.S.T.) or equivalent

No.	Signal	I/O	Content	No	Signal	I/O	Content
1	RXD	I	Receive data	2	TXD	O	Transmission data
3	RTS (DTR)	O	Request to send	4	GND	-	Signal ground
5	CTS (DSR)	I	Clear to send				

■ USB standard
- Connector (CN14)
  Mating connector part number: GHR-05V-S (J.S.T.) or equivalent

No.	Signal	I/O	Content	No	Signal	I/O	Content
1	VBUS	I	VBUS signal	2	D-	I/O	D- signal
3	D+	I/O	D+ signal	4	GND	-	Ground
5	FG	-	Frame ground				

Note: Symbol "-" in above tables mean a negative logic signal.
"I" or "O" means a signal direction from the interface board side (I: Input, O: Output).

■ Host Interface

Item		Specifications
Interface standard	RS-232C	9,600bps (460,800bps, 230,400bps, 115,200bps, 38,400bps, 19,200bps - Selectable by command)
		Communication method: Full duplex communication
		Synchronous method: Asynchronus
		Flow control: RTS(DTR)/CTS(DSR) or XON/XOFF –Selectable by command
		I/O level: RS-232C level
	USB Ver. 2.0 (full speed)	Transmission speed: Full speed (max. 12Mbps)
		Data input/output format: Differential

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