

FCL Components Thermal Printer

FTP-62GMCL173/473 *ACTIVE*

FTP-62GMCL173#01 *Not for New Design*

FTP-62GMCL473#01 *Discontinued March 2025*

FCL Components 2" high speed (200mm/s) thermal printer mechanism with cutter option

Overview

The compact, ultra low profile design FTP-62GMCL series thermal printer (driven by 12VDC or 24VDC) provides high speed printing (120mm/s at 12VDC or 200mm/s at 24VDC) for 2-inch wide paper.

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

Features

- High-speed printing
It can print at 200mm/s (1,600 dotlines/s) at 24V power supply, 120mm/s (960 dotlines/s) at 12V power supply maximum by using FCL Components' unique head drive control
- Rear paper insertion mechanism with lock type
FCL Components' unique platen release mechanism allows for a straight paper path and easy head maintenance
- Auto cutter
Ultra-low profile auto cutter (full/partial cut) mounted at the factory (FTP-62GMCL473 / 473#01)
- Multi-featuring metal frame
The rugged metal frame provides excellent ESD performance, is shock/vibration resistant and the heat-sink allows for continuous printing
- Compact size
Without cutter: Width: 76.2mm, depth: 20.4mm, height: 36.3mm (FTP-62GMCL173 / FTP-62GMCL173#01)
With cutter: Width: 80.5mm, depth: 34.8mm, height: 45.6mm (FTP-62GMCL473 / FTP-62GMCL473#01)
- High resolution
8 dots/mm head provides clear print
- UL recognized, file # E171434
- RoHS compliant



FTP-62GMCL173#01



FTP-62GMCL473/473#01

■ Part numbers

Item		Part Number
Printer mechanism	Without cutter, back insertion	FTP-62GMCL173 (58mm paper width)
		FTP-62GMCL173#01(60mm paper width)
	With cutter	FTP-62GMCL473 (58mm paper width)
		FTP-62GMCL473#01(60mm paper width)
LSI for driving		FTP-62GCU121-R
Interface board 12V	Serial (RS232C, USB)	FTP-62GDSL121#01 (Japanese font)
	Serial (RS232C, USB)	FTP-62GDSL121#02 (Traditional Chinese font)
Interface cable	Serial	FTP-62GY302
	USB	FTP-62GY311#01
Power supply cable	Logic, head, motor	FTP-629Y603

■ Specifications

Item		Specifications			
Part number		FTP-62GMCL173	FTP-62GMCL173#01	FTP-62GMCL473	FTP-62GM-CL473#01
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			
Paper width		58mm +0/-1	60mm +0/-1	58mm +0/-1	60mm +0/-1
Paper thickness		60-150μm*1	60-150μm*1	60-100μm*1	60-100μm*1
Printing speed	12VDC	120mm/s (960 dot lines/s)			
	24VDC	200mm/s (1600 dot lines/s)			
Character types	Alphanumeric KANA	159 types			
	International and special	195 types			
	OCRI	103 types			
	OCRIII	23 types			
	OCRIV	103 types			
	Extended numeric	12 types			
	JIS KANJI level 1, 2, non-Kanji	JIS KANJI: approx. 6800 (FTP-628GDSL121#01)			
Traditional Chinese		13, 503 (FTP-62GDSL101#02)			

*1: there may be exceptions

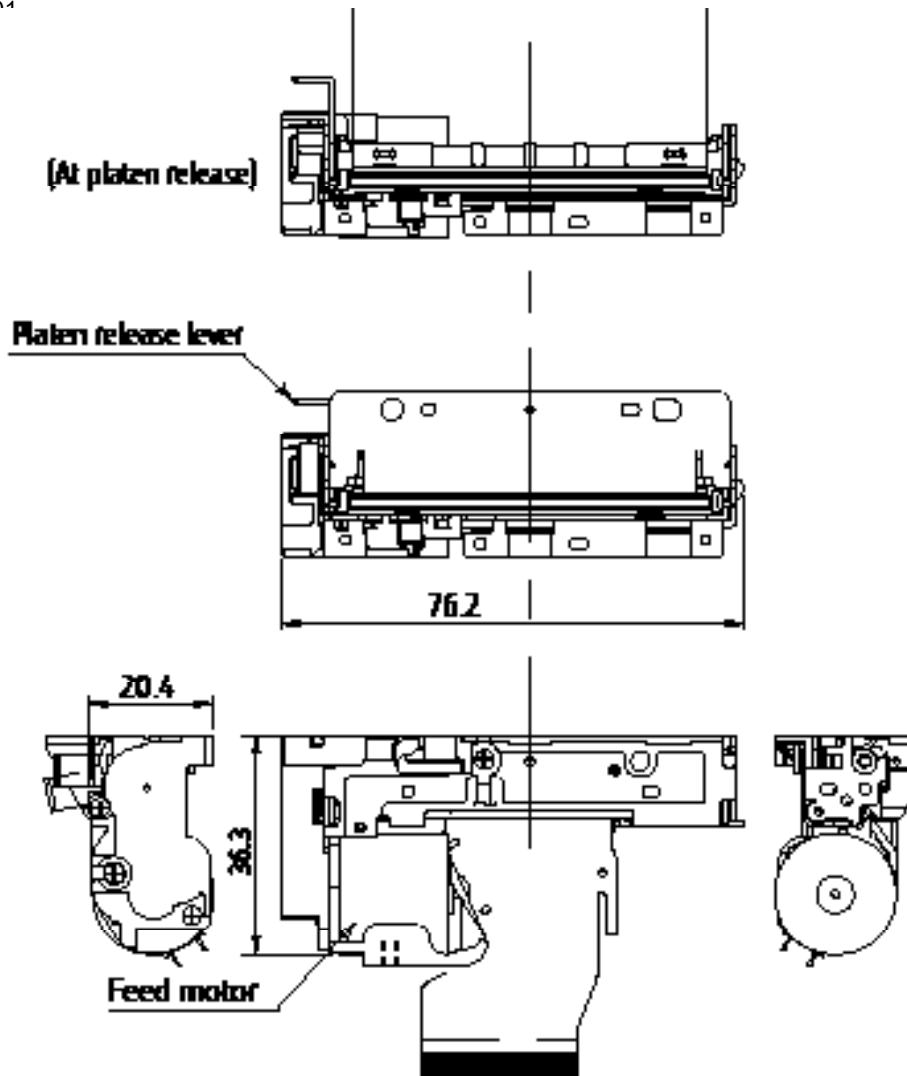
Item		Specifications			
Character dimensions (W x H), number of characters		8 x 16 dots, 54 columns, ANK	24 x 40 dots, 18 columns, OCRI		
		12 x 24 dots, 36 columns, ANK	24 x 48 dots, 18 columns, OCR11		
		16 x 16 dots, 27 columns, ANK	36 x 60 dots, 12 columns, OCR1V		
		24 x 24 dots, 18 columns, ANK	24 x 48 dots, 18 columns, extended numeric		
Part number		FTP-62GMCL173	FTP-62GMCL173#01	FTP-62GMCL473	FTP-62GM-CL473#01
Power	For head	10.8 to 26.4VDC (current 2.6A at 12V power supply, 5.3A at 24V power supply, concurrent applied dot number: 128dots)			
	For printer motor	10.8 to 26.4V, 1.5A maximum			
	For logic	3.3 or 5VDC ±5% 75mA maximum			
Dimensions (WxDxH)	Printer mechanism	76.2 x 36.3 x 20.4mm		80.5 x 45.6 x 34.8mm	
	Interface board (DSL)	70 x 37mm			
Weight	Printer mechanism	70g		135g	
	Interface board (DSL)	15g			
Expected life	Head	Pulse durability: 100 million pulse/dot (using FCL Components' standard driving method) Wear resistance: 100km (at 12.5% print ratio)			
Environmental conditions	Operating temperature	+5°C to +40°C (guarantee)			
	Operating humidity	20 to 85% RH (no condensation)			
	Storage temperature	-40°C to +70°C (excluding paper)			
	Storage humidity	5 to 95% RH (no condensation)			
Detection functions	Head temperature	By thermistor			
	Paper out/Mark detect	By photointerrupter			
	Platen open	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	TF-60KS-F1 (Nippon paper) P220VBB-1 (Mitsubishi paper)			
	Long term paper	PD160R (Oji paper) TP50KJ-R (Nippon paper) HA220AA (Mitsubishi paper)			

*2: Under conditions of 20 \pm 5°C, 40 to 60% RH, cut cycle: min. 3 sec., max. 20 cuts per min.

■ Dimensions

- Printer mechanism: 2-inch

FTP-62GMCL173/173#01

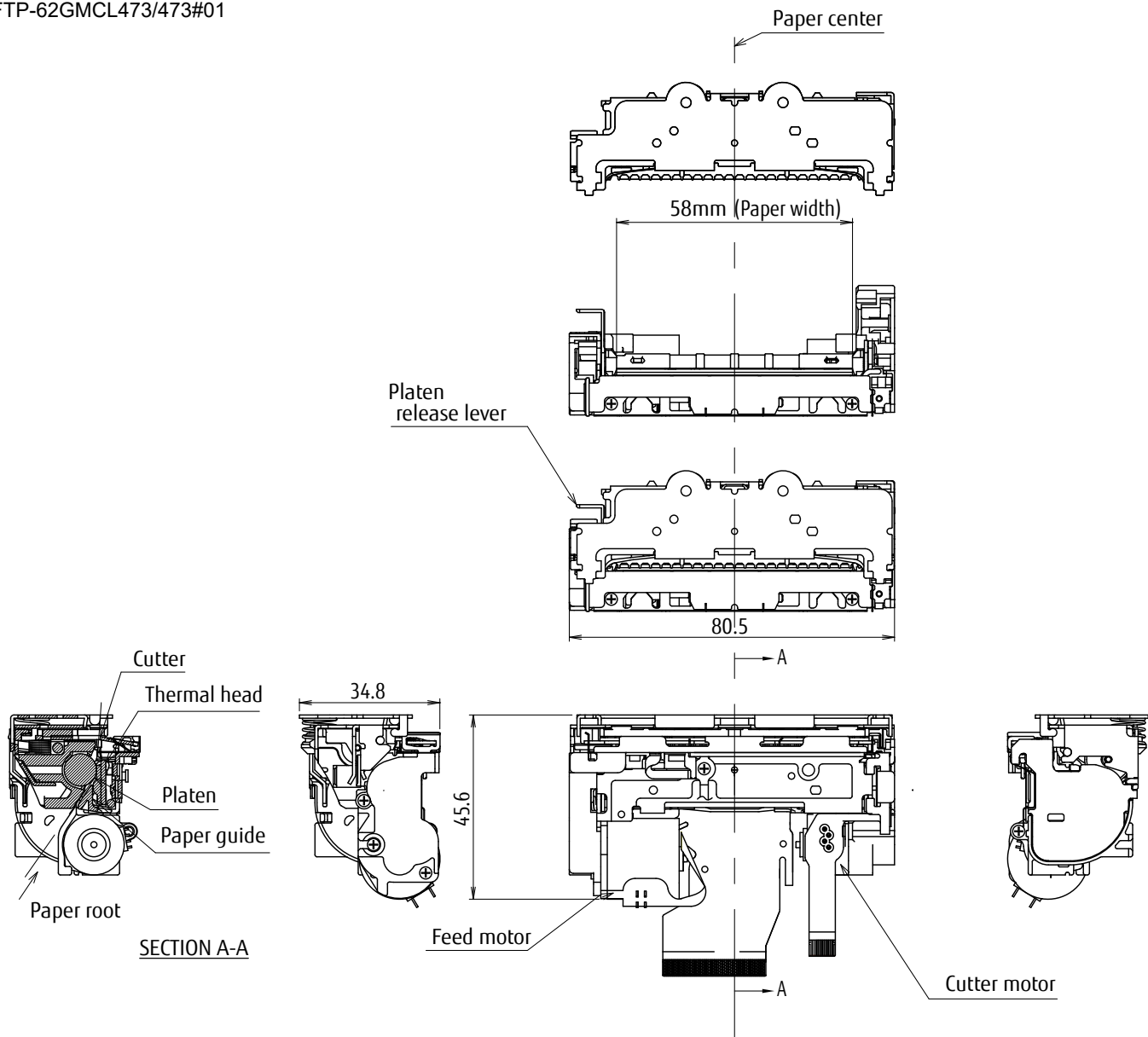


- Note:
1. Dimensions are nominal value)tolerance $\pm 0.5\text{mm}$ unless otherwise specified.
 2. Dimensions in () is reference value.

■ Dimensions

- Printer mechanism: 2-inch, with cutter

FTP-62GMCL473/473#01



Note: 1. Dimensions are nominal value)tolerance $\pm 0.5\text{mm}$ unless otherwise specified.
2. Dimensions in () is reference value.

■ Connector pin assignments of printer mechanism (FPC)

Recommended connector of head FPC: 54104-5031 (Molex) or equivalent

No	Signal	Content	I/O
1	VSEN	Paper sensor power	IN
2	PHK	Cathode for photo interrupter	OUT
3	PHE	Emitter for photo interrupter	OUT
4	N.C.	Not connected	-
5	VH	Head drive power	IN
6	VH	Head drive power	IN
7	VH	Head drive power	IN
8	VH	Head drive power	IN
9	VH	Head drive power	IN
10	VH	Head drive power	IN
11	DI	Data in	IN
12	/STB2	/Strobe2	IN
13	/STB3	/Strobe3	IN
14	VDD	Logic power	IN
15	GND	Head ground	-
16	GND	Head ground	-
17	GND	Head ground	-
18	GND	Head ground	-
19	GND	Head ground	-
20	GND	Head ground	-
21	GND	Head ground	-
22	GND	Head ground	-
23	GND	Head ground	-
24	GND	Head ground	-
25	GND	Head ground	-
26	GND	Head ground	-
27	TM	Thermistor	OUT
28	N.C.	Not connected	-
29	/STB1	/Strobe1	IN
30	/LAT	/Data latch	IN
31	CLK	Clock	IN
32	VH	Head drive power	IN
33	VH	Head drive power	IN
34	VH	Head drive power	IN
35	VH	Head drive power	IN
36	VH	Head drive power	IN
37	VH	Head drive power	IN
38	N.C.	Not connected	-
39	SW	Platen switch release	OUT
40	SW	Platen switch release	OUT
41	MTM	Motor thermistor	OUT

No	Signal	Content	I/O
42	MTM	Motor thermistor	OUT
43	MT_/A	Excitation signal /A	SINK/SOURCE
44	MT_/A	Excitation signal /A	SINK/SOURCE
45	MT_A	Excitation signal A	SINK/SOURCE
46	MT_A	Excitation signal A	SINK/SOURCE
47	MT_/B	Excitation signal /B	SINK/SOURCE
48	MT_/B	Excitation signal /B	SINK/SOURCE
49	MT_B	Excitation signal B	SINK/SOURCE
50	MT_B	Excitation signal B	SINK/SOURCE

- Connector pin assignments of cutter (FPC) - For FTP62GMCL473/473#01 only
Recommended connector of cutter motor FPC: 52745-1297 (Molex) or equivalent

No	Signal	Content	I/O
1	MT_B	Excitation signal B	SINK/SOURCE
2	MT_B	Excitation signal B	SINK/SOURCE
3	MT_/B	Excitation signal /B	SINK/SOURCE
4	MT_/B	Excitation signal /B	SINK/SOURCE
5	MT_A	Excitation signal A	SINK/SOURCE
6	MT_A	Excitation signal A	SINK/SOURCE
7	MT_/A	Excitation signal /A	SINK/SOURCE
8	MT_/A	Excitation signal /A	SINK/SOURCE
9	N.C.	Not connected	-
10	VSEN	Paper sensor power	IN
11	PHE	Emitter for photo interrupter	OUT
12	PHK	Cathode for photo interrupter	OUT

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