

FUJITSU Components Thermal Printer FTP-83AMCL411 series

Fujitsu 3" 24V Drive Printer Mechanism with Cutter

Overview

The FTP-83AMCL Series is 24V driven printer mechanism with cutter for 3 inch wide paper.

The printer mechanism most suitable for applications such as ticket machines, label printers, banking machines, kiosk terminals, POS terminals, etc.



FTP-83AMCL series

Features

- High resolution
11.8dot/mm (300dpi)
- Thick paper: up to 150 μ m, straight pass, front feed
- With slide cutter
Full or partial cut
- Easy maintenance
Head open structure
- UL file no. E171434
- RoHS compliant

■ Specifications

Item	Specifications		
Part number	FTP-83AMLC411		
Printing method	Thermal-sensitive line dot method		
Dot structure	960dots/line		
Dot pitch	Horizontal	0.0847 mm (dot density: 11.8 dots/mm, 300dpi)	
	Vertical	0.0847 mm (line feed: 11.8 dots/mm, 300dpi)	
Effective printing area	81 mm		
Paper	Width	86 mm ±1	
	Thickness	75-145 μm*1	
Cutting type	Slide cutter (full or partial)		
Printing speed	Max. 160 mm/s (1,888 dotlines/s, at +25°C, 24VDC page mode, 320 dots simultaneously apply)*2		
Power supply	For head	24VDC ±10% approx. 12.4A (at 25°C, 24VDC, 970Ω/dot, 512 dots simultaneously apply)	
	For printer motor	24VDC ±10% approx. 1.2A (double-phase excitation)	
	For cutter motor	24VDC ±10% approx. 1.2A (double-phase excitation)	
	For logic	3.3VDC ±5% / 5VDC ±5% 0.2A max.	
Dimensions (W x D x H)	120 x 54 x 30mm*3		
Weight	Approx. 340g		
Expected life	Head	Pulse durability	100 million pulse/dot (using Fujitsu's standard driving method)*2
		Wear resistance	150 km (at max. 12.5% printing ratio)
	Cutter	300,000 cuts minimum*2	
Environmental conditions	Operating temperature	0°C to +50°C (+5°C to +60°C guarantee)*2	
	Operating humidity	20 to 85% RH (no condensation)	
	Storage temperature	-20°C to +60°C	
	Storage humidity	5 to 95% RH (no condensation, excluding paper)	
Detection	Head temperature	By thermistor	
	Motor temperature	By thermistor	
	Paper out/Mark detect	Reflection type photo sensor	
	Head release	Transparent type photo sensor	
	Moving/fixed blade initialization	Transparent type photo sensor	
Recommended thermal sensitive paper	Standard paper	PD150R (Oji paper)	
	Long term paper	PD160R (Oji paper)	
	Thick paper	TC11KS-TH (Nippon paper), AP-11KM-A (Jujo paper)	

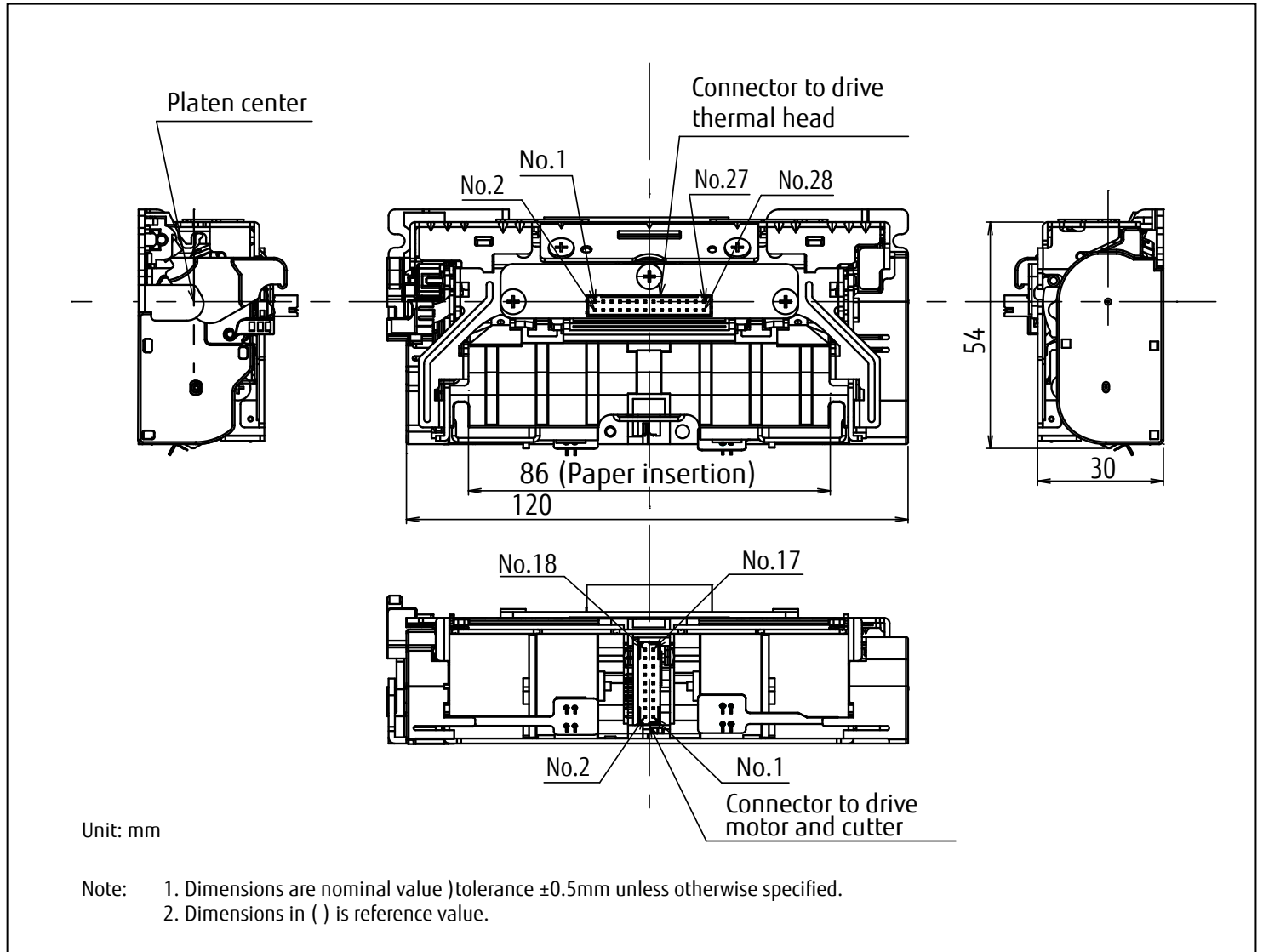
*1: There may be exceptions.

*2: Using standard thermal paper specified by Fujitsu Components.

*3: Excluding prong and flexible printed board.

■ Dimensions

- FTP-83AMCL411



■ Connector pin assignments of printer mechanism

- Thermal head control circuit side: recommended connector: PHDR-28VS (JST)

No	Signal	Content	Direction*1
1	VH	Head drive power	IN
2	VH	Head drive power	IN
3	VH	Head drive power	IN
4	VH	Head drive power	IN
5	DO1	Data out 1	OUT
6	DI1	Data in 1	IN
7	GND	Head ground	-
8	GND	Head ground	-
9	GND	Head ground	-
10	GND	Head ground	-
11	GND	Head ground	-
12	STB1	Strobe1	IN
13	CLK	Clock	IN
14	/LAT	Data latch	IN
15	Vdd	Logic power	IN
16	TM	Thermistor	-
17	TM	Thermistor	OUT
18	STB2	Strobe2	IN
19	GND	Head ground	-
20	GND	Head ground	-
21	GND	Head ground	-
22	GND	Head ground	-
23	DO2	Data out 2	OUT
24	DI2	Data in 2	IN
25	VSF	Head drive power	IN
26	VH	Head drive power	IN
27	VH	Head drive power	IN
28	VH	Head drive power	IN

*1: Output direction from mechanism side

■ Interface connector specifications for sensor / motor driving connector

- Recommended control board connector: LY10-DC18 (JAE)
- Pin arrangement with cutter type

Pin No	Signal	Content	Direction
1	CMT-A	Cutter motor excitation signal A	Sink/source
2	CMT-/B	Cutter motor excitation signal /B	
3	CMT-B	Cutter motor excitation signal B	
4	CMT-/A	Cutter motor excitation signal /A	
5	VSEN	Paper sensor power	IN
6	PHE-C	Emitter for photo interrupter (cutter)	OUT
7	PHK-C	Cathode for photo interrupter (cutter)	OUT
8	TM	Thermistor	-
9	TM	Thermistor	OUT
10	PHK-P	Cathode for photo interrupter (paper sensor)	OUT
11	PMT-A	Paper motor excitation signal A	Sink/source
12	PHE-P	Emitter for photo interrupter (paper sensor)	OUT
13	PMT-/B	Paper motor excitation signal /B	Sink/source
14	Vsen	Paper sensor power	IN
15	PMT-B	Paper motor excitation signal B	Sink/source
16	PHK-L	Cathode for photo interrupter (lever sensor)	OUT
17	PMT-/A	Paper motor excitation signal /A	Sink/source
18	PHE-L	Emitter for photo interrupter (lever sensor)	OUT

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