

# LINE THERMAL PRINTER MECHANISM

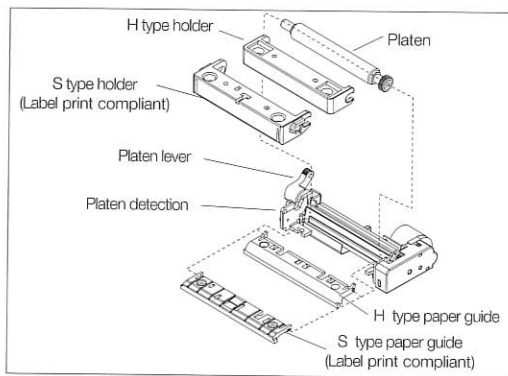
## MLT4280 / 4280K



### Features

- Ultra compact design and low voltage usage (5V)
- High-speed print: Max. 80mm/sec
- Easy platen release construction
- Robust and highly reliable Zinc die-cast frame works with a full range of portable applications
- Available sensors for head temperature, paper, platen and cutter position
- Tailor-made for handheld applications
- Label version available

### Model classification exploded view



### Optional Accessory

#### Control board



BD2-4281U

### Specifications

		Thermal paper type	Thermal label paper type
Printing method		Thermal dot line printing method	
Total dots		384 dots/line	
Dot density		8 dots/mm	
Printing width		48mm	
Printing speed		Max. 80mm/sec. (640 dot-lines/sec)	
Paper width		58mm	
Paper feeding pitch		0.125mm	
Sensors	PE sensor	Photo-interruptor	
	Head temperature sensor	Thermistor	
	Paper sensor	Photo-interruptor	
	Platen sensor	Mechanical switch	
	Label paper sensor	—	Photo-interruptor
Frame		Zinc (Die cast)	
Operating voltage range *1	VH	DC 4.2 to 8.5V	DC 6.0 to 8.5V
	Vdd	DC 3.0 to 5.5V	
Current consumption	Head (VH)	Max. 1.5A approx. (VH=5V)	Max. 2.3A approx. (VH=6V)
	Motor (VH)	Max. 3.9A approx. (VH=8.5V)	Max. 3.9A approx. (VH=8.5V)
Recommended paper	Width	58mm	
	Thickness	62 to 100µm	152µm
	Diameter *2	φ60mm or less	
	Paper (Manufacturer)	TF50KS-E2D (Nippon paper)	HD75 (Nippon paper)
Reliability *3	Head pulse-resistance	100 million pulses or more	
	Head wear-resistance	50km or more	
Environment	Operation	Temperature: 0 to 45°C Humidity: 35 to 85% RH (No condensation)	
	Storage	Temperature: -20 to 60°C Humidity: 10 to 90% RH (No condensation)	
External dimensions (Excluding the platen ass'ys, motor and lever)		MLT4280-P1: 69.5 (W) x 36.7 (D) x 12.7 (H) mm	MLT4280KS-LM1/2: 73.0 (W) x 45.0 (D) x 16.0 (H) mm
		MLT4280KH-P1: 71.6 (W) x 36.7 (D) x 12.7 (H) mm	MLT4280KS-P1: 73.0 (W) x 45.0 (D) x 16.0 (H) mm
Weight		MLT4280-P1: Approx. 40g	MLT4280KS-LM1/2: Approx. 52g
		MLT4280KH-P1: Approx. 49g	MLT4280KS-P1: Approx. 50g

\*1: Voltage drop at maximum current may cause the print quality problem. Please check it carefully in your environment such as control board, wiring, etc. Also please keep the voltage within the specified voltage range even by the voltage drop.

\*2: The number of diameter varies depending on the conditions.

\*3: Normal temperature at 25°C, normal humidity, 12.5% printing ratio, rated energy and by use of the recommended print paper.

#### Model classification

MLT4280 K H - P1

1) 2) 3)

1) Platen lever  
None: No platen lever  
K: With platen lever

2) Platen holder & platen sensor  
None: No platen holder and no platen sensor  
H: Normal platen holder with platen sensor  
S: Label/black mark compliant platen holder with platen sensor

3) Paper sensor  
P1: Paper end sensor  
LM1: Black mark sensor (located at the motor side)  
LM2: Black mark sensor (located at the lever side)