

Printer Mechanisms and Accessories from Star Micronics



AUTOCUTTERS ✓

PRINT HEADS ✓

CONTROL BOARDS ✓

RE-WINDERS ✓

MATRIX MECHANISMS ✓

THERMAL MECHANISMS ✓



Product Summary

Star's close working relationships with OEM customers all over the world have resulted in a range of mechanisms which have been produced to provide solutions in the widest variety of applications.

The mechanisms offered in this brochure are here to inspire you. If they are not exactly what you are looking for, please contact the Star sales support team (spsales@cp.star-micronics.co.jp) to see if any of our products can be tailored to meet your needs.

The current range includes the following:-

MP100 Series	Super small, 9-pin high performance mechanism.
MP200 Series	A range of low cost, highly reliable 7 & 9-pin mechanisms.
MP292 Series	Highly reliable, 9-pin slip mechanism with adjustable paper thickness.
MP300 Series	The versatile core product range of 9-pin high performance mechanisms with 3 adjustable paper widths. The range includes Terminal / Kiosk mechanisms with Cutter and Presenter options.
MP320 Series	Sprocket version of the MP300 Series.
MP330 Series	4.5"/114.3mm and 5"/127mm version of the MP300 Series.
MP200/300 Platenless	Mechanisms from the successful MP200 / 300 Series designed without a paper feed system.
DP83 Series	Highly reliable, and rugged 9-pin black / red mechanisms designed specifically for mobile and label applications.
Star Accessories	Include Print Heads, Re-winders, Auto-Cutters and Control Boards.



KEY FEATURES

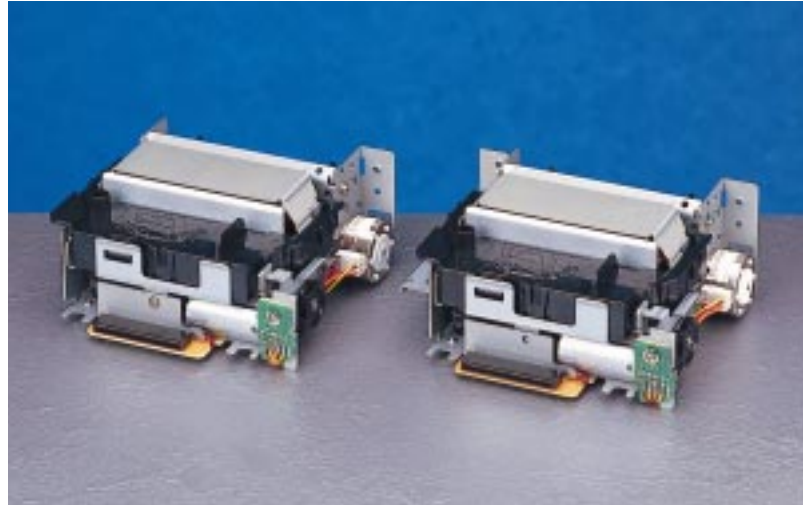
MODELS	MP100 SERIES 9-pin	MP200 SERIES 7-pin	MP230 SERIES 9-pin	MP292 SERIES 9-pin	MP300 SERIES 9-pin	MP320 SERIES 9-pin	MP330 SERIES 9-pin	DP83 SERIES 9-pin	TMP212	TMP400 SERIES
	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Thermal	Thermal
Autocutter		MP242			MP342 / MP347 / 382			DP834CP		TMP452 / TMP482 / 492
Friction	MP111 / 115	MP212 / 216 MP242 / 246	MP232 / 236		✧			DP832 / DP834 / 834GP	✧	✧
Red / Black Output	MP115	MP216 / 246	MP235 / 236					✧		
Sprocket		MP221	MP231 / 235			✧	✧	DP834S / DP834SP		
Graphics Capability	✧	MP221S	✧	✧	✧	✧	✧	DP834GP	✧	✧
Platenless				MP292N	MP312N		MP334N			
Speed (range)	3.85 lines per second	2.5 - 4.39 lines per second	3.1 - 4.39 lines per second	3.1 lines per second	3.2 - 5.5 lines per second	3.2 - 4.2 lines per second	2.3 - 2.8 lines per second	1.5 - 3.00 lines per second	50mm per second	50mm per second
Paper Width	2.25" 1.75"	3"	3"		3.25"	MP321 / 322 : 3" MP322 : 3.5"	4.5" 5"	DP832 : 2.25" DP834 : 4.5"	80mm	TMP452 : 60-82mm TMP482,492 : 82mm
Paper Feed	Stepping Motor	Mechanical	Mechanical / Stepping Motor	Stepping Motor	Stepping Motor	Stepping Motor	Stepping Motor	Mechanical	Stepping Motor	Stepping Motor
Copy Capability	1 + 2	1 + 2	1 + 2	1 + 2	1 + 2	1 + 2	1 + 2	1 + 1		
Supply DC (± 5%)	24 volt	24 volt MP221 Mechanical Stepping Versions	24 volt	24 volt	25 volt	25 volt	25 volt MP334/335 13v versions	12 volt (± 10%)	24 volt	24 volt

NEW MECHANISMS

COMPACT AND HIGH RELIABILITY

MP100 Series 9 pin

- ✦ Compact, low cost and high reliable mechanisms.
- ✦ 2.25" / 1.75"(option)paper width
- ✦ MCBF up to 4 million lines.
- ✦ Print head Life up to 70 million characters.



9 - Pin

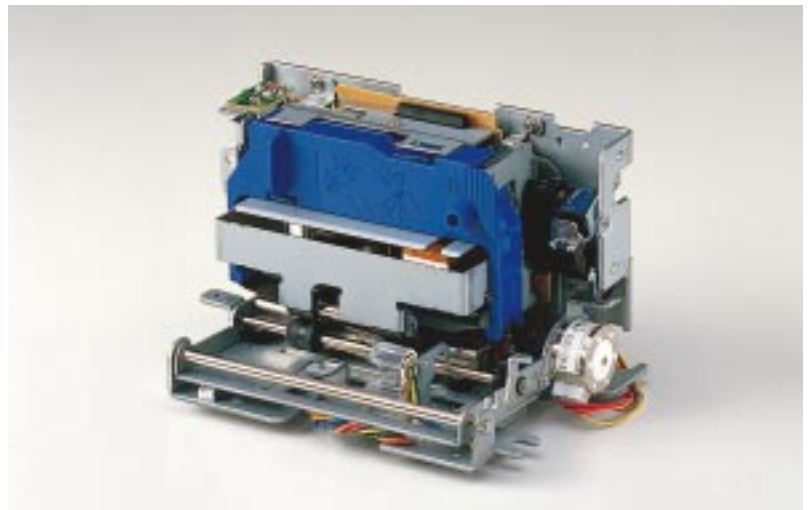
9-Pin	PaperWidth	Copy Capability	Supply Voltage DC	Print Head Characters (Millions)	MCBF Millions
✓	2.25" (57.5mm) 1.75" (44.5mm) with options	1 + 2	24 V	70	4

Individual Specifications	No of Cols	Friction / Sprocket	Speed Lines/Sec	Red/Black Print RC100BR	Graphics Capability	Paper End Sensor	MCBF Lines (Millions)	Ribbon RC100P Purple RC100B Black	Paper Feed Method	Dimensions WxDxH(mm)
MP111MP-24G-A	32	F	3.85 lps		✓	✓	4	✓	Stepping motor	111 x 106 x 55
MP115MP-24G-A	32	F	3.85 lps	✓	✓	✓	4	✓	Stepping motor	118 x 106 x 55

SLIP PRINTER MECHANISM

MP292 Series 9 pin

- ✦ Bi-directional serial impact printer capable of printing graphics using a highly reliable 9-pin printer head.
- ✦ Up to 3.1 lines per second with bi-directional check mode.



9 - Pin

9-Pin	Copy Capability	Supply Voltage DC	Print Head Characters (Millions)	MCBF Millions
✓	1 + 2	24 V	70	2.5

Individual Specifications	No of Cols	Friction / Sprocket	Speed Lines/Sec	Graphics Capability	Paper End Sensor	MCBF Lines (Millions)	Ribbon RC200P Purple RC200B Black	Paper Feed Method	Control Board	Dimensions WxDxH(mm)
MP292-24G-A	42	F	3.1 lps	✓	✓	2.5	✓	Stepping motor	BD 290MD-24-A BD 290MC-24-A	154 x 107 x 101

MECHANISMS - MATRIX

LOW COST

MP200 Series 7 pin

- ✧ Compact, low cost and reliable mechanisms.
- ✧ 12V / 24V versions with or without autocutters.
- ✧ 3" / 76mm paper width.
- ✧ MCBF up to 2.5 million lines.
- ✧ Print head Life up to 75 million characters.
- ✧ Friction and sprocket mechanisms available.
- ✧ Platenless version MP292N.



7 - Pin

7-Pin	Paper Feed Method	Paper Width	Copy Capability	Paper Thickness (Single/Multi)	Paper End Sensor	Ribbon RC200P Purple RC200B Black	Operating Temperatures
✓	Mechanical	3" (76mm)	1 + 2	0.07-0.10mm/0.2mm	✓	✓	5 to +50C

Individual Specifications	No of Cols	Friction / Sprocket	Speed Lines/Sec	Red/Black Print RC200BR	Supply Voltage	MCBF Lines (Millions)	Print Head Characters (Millions)	Control Board	Dimensions WxDxH(mm)
MP212FP-12-A	42	F	2.5 lps		12v	2.5	75	BD200FC-12-A	132 x 96 x 48.3
MP212FP-24-A	42	F	2.5 lps		24v	2.5	75	BD200FC-24-A	132 x 96 x 48.3
MP212FP-24G-A	42	F	3.1 lps		24v	2	50		132 x 96 x 48.3
MP216FP-12-A	42	F	2.5 lps		12v	2.5	75	BD200FC-12-A	132 x 96 x 48.3
MP216FP-24-A	42	F	2.5 lps	✓	24v	2.5	75	BD200FC-24-A	132 x 96 x 48.3
MP242FP-24-A With cutter	42	F	2.5 lps		24v	2.5	75	BD200FC-24-A	142 x 108 x 78.47
MP246FP-24-A	42	F	2.5 lps	✓	24v	2.5	75	BD200FC-24-A	142 x 108 x 78.47
MP221SP-24G-A	28	S	4.39 lps		24v	2	50		132 x 102 x 58.44
MP221SGP-24G-A	28	S	4.39 lps		24v				132 x 102 x 58.44
MP221SHP-24-A	28	S	4.2 lps		24v	2	50		132 x 102 x 58.44

MP230 Series 9-pin

- ✧ 9-Pin Version of MP200 Series with both Stepping Motor and Mechanical models.
- ✧ Versatile graphics capability with 1 dot line feed with stepping motor versions



9 - Pin

9-Pin	PaperWidth	Copy Capability	Supply Voltage DC	Print Head Characters (Millions)
✓	3" (76mm)	1 + 2	24 V	70

Individual Specifications	No of Cols	Friction / Sprocket	Speed Lines/Sec	Red/Black Print RC200BR	Graphics Capability	Paper End Sensor	MCBF Lines (Millions)	Ribbon RC200P Purple RC200B Black	Paper Feed Method	Dimensions WxDxH(mm)
MP231SHP-24G-A	28	S	4.39 lps	✓		✓	2.5	✓	Mechanical	134.2 x 101 x 58.8
MP235SHP-24G-A	28	S	4.39 lps	✓		✓	2.5	✓	Mechanical	134.2 x 100 x 58.8
MP231SMP-24G-A	28	S	4.39 lps		✓	✓	5	✓	Stepping motor	134.2 x 101 x 56.32
MP235SMP-24G-A	28	S	4.39 lps	✓	✓	✓	5	✓	Stepping motor	134.2 x 101 x 56.32
MP232FP-24G-A	42	F	3.1 lps		✓	✓	5	✓	Stepping motor	134.2 x 100 x 53.8
MP236FP-24G-A	42	F	3.1 lps	✓	✓	✓	5	✓	Stepping motor	134.2 x 100 x 53.8

Full technical specifications can be found on the STAR WEB SITE <http://www.star-micronics.co.jp>

HIGH PERFORMANCE



9 - Pin

Common Features	9-Pin	Paper Feed Method	Copy Capability	Paper Thickness (single /multi-part)	Print Head Characters (Millions)	Operating Temperatures	Graphics Capability	Ribbon RC300P Purple RC300B Black	Supply Voltage
MP300/320 MP330	✓	Stepping Motor	1 + 2	0.07-0.10mm/ 0.2mm	200	5 to +50C	✓	✓	24/25V

MP300 Series 9-Pin

- ✦ Class leading, high performance, 9-pin mechanisms.
- ✦ MCBF 8 million lines
- ✦ Print head life 200 million characters.
- ✦ Available with or without autocutters.
- ✦ Versatile paper handling with 3 adjustable paper widths (2.5"/76.5mm, 3"/76mm, or 3.25" / 82.5mm versions).
- ✦ Easily changeable long lasting ribbons.
- ✦ Platenless version MP312N.



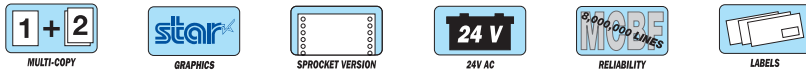
Individual Specifications	No of Cols	Friction / Sprocket	Speed Lines / Sec	Cutter	MCBF Lines (millions)	Paper Width	Control Board Please select FC/FD interface version	Dimensions W x D x H(mm)
MP312F-24-A	40	F	3.2 lps		8	57.5mm/76mm/82.5	BD300 FC/FD-24	136.9 x 187.9 x 65.1
MP317FV-24-AC *	40	F	5.5 lps		8	3.25" (82.5mm)	BD317 FC/FD-24	136.9 x 187.9 x 65.1
MP342FX-24-A	40	F	3.2 lps	Yes - Partial	8	57.5mm/76mm/82.5	BD300 FC/FD-24	136.9 x 187.9 x 84.6
MP342FX-24-L	40	F	3.2 lps	Yes - Full	8	57.5mm/76mm/82.5	BD300 FC/FD-24	136.9 x 187.9 x 84.6
MP347FXV-24-AC *	40	F	5.5 lps	Yes - Partial	8	3.25" (82.5mm)	BD347 FC/FD-24	136.9 x 187.9 x 84.6
MP382FW-24-L With presenter	40	F	3.2 lps	Yes - Full	8	3.25" (82.5mm)	BD382 FC/FD-24	136.9 x 187.9 x 143.13

* Star Control Board must be used.



MP320 Series 9-Pin

Sprocket versions of the MP300 Series.



Individual Specifications	No of Cols	Paper Width	Speed Lines/Sec	Control Board	Dimensions W x D x H(mm)
MP321S-24-A	28	76/89mm	4.2 lps	BD300 SC/SD-24	155.5 x 153.5 x 65.1
MP322S-24-A	40	3.5" (89mm)	3.2 lps	BD300 SC/SD-24	155.5 x 153.5 x 65.1
MP323S-24-A	35	76/89mm	3.6 lps	BD300 SC/SD-24	155.5 x 153.5 x 65.1

Packaged printer versions of most models available.

Please see details in POS Printer range brochure.

MP330 Series 9-Pin

- ✦ Wide, sprocket versions of MP300 Series
- ✦ 12V / 24V versions with or without autocutters.



Individual Specifications	No of Cols	Paper Width	Speed Lines / Sec	Supply Voltage DC	MCBF Millions	Dimensions W x D x H(mm)
MP334S-12-A	48	5" (127mm)	2.8 lps	12/13V	5	117.1 x 187.9 x 65.1
MP334S-24-A	48	5" (127mm)	2.8 lps	24/25V	5	117.1 x 187.9 x 65.1
MP335S-12-A	68	5" (127mm)	2.3 lps	12/13V	5	117.1 x 187.9 x 65.1
MP335S-24-A	68	5" (127mm)	2.3 lps	24/25V	5	117.1 x 187.9 x 65.1

MECHANISMS - MATRIX

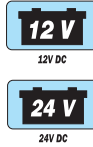
PLATENLESS VERSIONS

MP200/MP300 SERIES

Platen free versions of the MP200 and MP300 Series of mechanisms providing OEM's / system manufacturers with the flexibility of designing their own paper feed system.



9 - Pin



Common Features	9-Pin	Paper Thickness (up to)	Operating Temperatures	Print Head Characters (Millions)
All Models	✓	0.2mm	0 to +50C	70

Individual Specifications	No of Cols	Speed Lines/Sec	MCBF Lines (Millions)	Supply Voltage	Ribbon	Dimensions WxDxH(mm)
MP292N-24G-A	42	3.1 lps	2.5	24V	RC200P Purple RC200B Black	132.4 x 71.58 x 56.86
MP312N-24-A	40	3.2 lps	8	24/25V	RC300P Purple RC300B Black	131.1 x 101.5 x 65.1
MP334N-12-A	48	2.8 lps	5	12/13V	RC330P Purple RC330B Black	160.6 x 101.5 x 65.1
MP334N-24-A	48	2.8 lps	5	24/25V	RC330P Purple RC330B Black	160.6 x 101.5 x 65.1

DP83 SERIES

- Robust, low cost, 9-pin, black / red mechanisms.
- 12 Volt supply for mobile applications.
- 2.25"/ 57.5mm (DP832) or 4.5"/114.3mm (DP834) carriage widths available.
- MCBF 5 million lines, Print Head Life 70 million characters.
- Friction and Sprocket versions available.



9 - Pin

Common Features	9-Pin	Paper Feed Method	Supply Voltage	Copy Capability	Paper Thickness (Single)	Paper Thickness (Multi-part)	MCBF Lines (Millions)	Print Head Characters (Millions)	Black Ribbon SF-03B	Operating Temperatures
DP83 Series	✓	Mechanical	12V	1 + 1	0.07-0.09mm	0.13mm	5	70	✓	5 to +45C

Individual Specifications	No of Cols	Friction / Sprocket	Paper Width	Speed Lines / Sec	Red/Black Print SF-03BR	Full Cutter	Control Boards	Paper End Sensor	Dimensions WxDxH(mm)
DP832-12	22	F	2.25" (57.5mm)	3 lps	✓		BD83 - 12		135.5 x 138.5 x 59
DP832P-12	22	F	2.25" (57.5mm)	3 lps	✓			✓	135.5 x 138.5 x 59
DP834-12	40	F	4.5" (114.3mm)	2 lps	✓		BD83SND - 12		174.5 x 138.5 x 59
DP834P-12	40	F	4.5" (114.3mm)	2 lps	✓			✓	174.5 x 138.5 x 59
DP834S-12	40	S	4.5" (114.3mm)	2 lps	✓		BD83SSD - 12	✓	174.5 x 138.5 x 59
DP834SP-12	40	S	4.5" (114.3mm)	2 lps	✓		BD83PNC - 12	✓	174.5 x 138.5 x 59
DP834GP-12	40	F	4.5" (114.3mm)	1.5 lps			BD83SGD/PNC-12	✓	174.5 x 138.5 x 59
DP834CP-12	40	F	4.5" (114.3mm)	2 lps	✓	✓		✓	218 x 138.5 x 79

MECHANISMS - THERMAL



TMP200 SERIES



NEW low cost, compact direct linear thermal mechanism.

- Easily accessible print head for simple maintenance purposes.
- Print speeds of up to 2" / 50 mm per second.
- High reliability MCBF 10 million lines.
- 8 dots per mm (203 dpi) resolution.
- Rear or bottom feed.

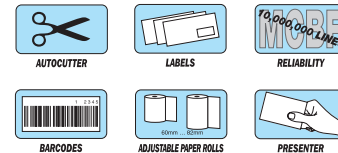
TMP400 SERIES

Highly versatile, direct linear thermal mechanisms with robust paper handling capabilities and low maintenance requirements.

- Print speeds of up to 2"/50mm per second.
- Straight paper path for paper, ticket or card stock up to 150 gsm.
- Advanced design allows easy access to both print head and paper paths.
- Autocutter (TMP452) and Presenter (TMP482) models available.
- Adjustable paper widths (60 - 82 mm) with paper end and black mark sensors.
- High quality print resolution 8 dots per mm (203 dpi) resolution.



Common Features	Print Method	Paper Feed Width	Friction / Sprocket	Print Speed (per second)	Operating Temperatures
All Models	Direct Line Thermal	Stepping Motor	Friction	2" (50mm)	5 to +40c

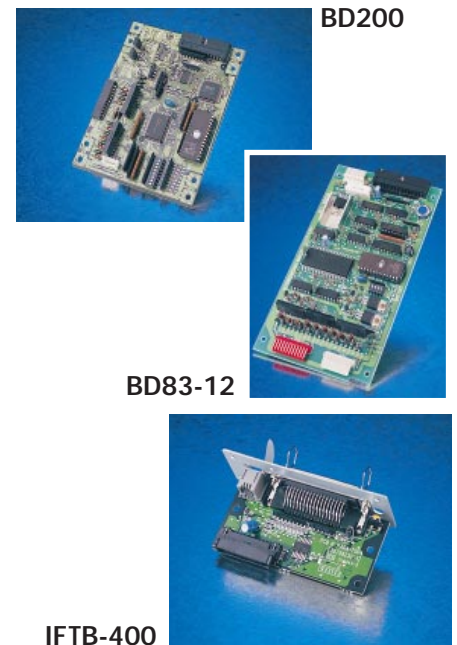


Individual Specifications	No of Columns	Paper Width (Maximum)	Cutter	Presenter	Graphics Capability	Mechanism Reliability (Lines)	Print Head Reliability	Paper Thickness (Single)	Control Boards	Dimensions WxDxH(mm)
TMP212	64	80mm			✓	10 Million	50 km	0.06-0.07mm		116 x 54.66 x 27.51
TMP412-24N-A	50	3.25" (82.5mm)			✓	10 Million	100 km	0.06-0.15mm	TBD400-24-A	144 x 79.2 x 89
TMP442-24N-A	50	3.25" (82.5mm)	Heavy Duty		✓	10 Million	100 km	0.06-0.15mm	TBD400-24-A	150.5 x 121.9 x 89
TMP452W-24N-A	50	3.25" (82.5mm)	Full		✓	10 Million	100 km	0.06-0.08mm	TBD400-24-A	144 x 101 x 96.2
TMP482W-24N-A	50	3.25" (82.5mm)	Full	✓	✓	10 Million	100 km	0.06-0.08mm	TBD400-24-A	144 x 157.58 x 96.2

CONTROL BOARDS

Star offers a range of control boards specifically designed to work with the Star Series of mechanism products.

	BD300FD-24-B	BD300SD-24-B	BD300FC-24-B	BD300SC-24-B
Interface	Serial (RS232C) RS422A(option) 20mA current loop (option)		Parallel	
Interface connector	D-SUB25 (FEMALE)		Parallel interface standard Amphenol 36-pin 57-30360 (MALE)	
Dimensions (mm)	150 (W) x 166 (D)		150 (W) x 168 (D)	
	BD83-12	*BD83SND-12 BD83SNM-12 (USA)	*BD83SSD-12 BD83SSM-12 (USA)	*BD83SGD-12 BD83SGM-12 (USA)
Interface	Parallel	Serial (RS232C) 20mA current loop		Parallel
Interface connector	34-pin IDC head Molex5342-34GS1	*D-SUB25 (FEMALE) RJ45 (FEMALE) (USA)		Parallel interface standard Amphenol 36-pin 57-30360 (FEMALE)
Dimensions (mm)	100 (W) x 180 (D)	162 (W) x 167 (D)		158 (W) x 167 (D)
	BD200FC-12-A		BD200FC-24-A	
Interface	Parallel and TTL level Senal			
Interface connector	26-pin ribbon connector			
Dimensions (mm)	125(W) X 100 (D)			
	IFTBD400D	IFTBD400C	IFTBD400K	TBD400-24-A
Interface	Serial (RS232C)	Parallel	Serial (RS422)	Interface
Interface connector	D-SUB25 (FEMALE)	Amphenol 36-pin	D-SUB25 (FEMALE)	Interface connector
Dimensions (mm)	46 (W) x 99 (D)			Dimensions(mm)
The IFTBD400 Series of interface boards should be used with TBD400				Power supply
				DC24V±7% Av. 2.5A/ max. 6A within 15 sec



* except USA

ACCESSORIES

PRINT HEADS

Star's range of highly successful print heads have been used in a wide variety of applications from bus ticketing to cheque printing. Their current success is the logical result of their consistently high reliability record, value for money and compact versatile design.



	DP200-12	DP200-24	DP8901	DP8302/8304A
Number of pins	7		9	
Supply voltage	12V	24V	24V	12V
Current	2.7A	0.9A	0.9A	1.8A
Pulse width	350 μ sec.	360 μ sec.	340 μ sec.	460 μ sec.
Reliability	75 million characters	200 million characters	200 million characters	70 million characters

PAPER RE-WINDERS

PW300 - SP300 Series (Horizontal Use)
PW349 - SP349 / UP389 (Vertical Use)



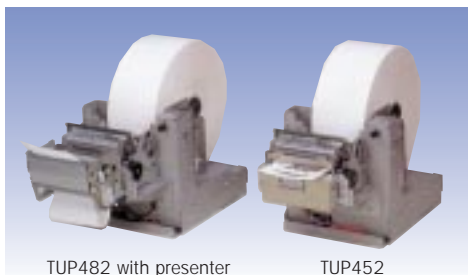
Paper width	2.25" (57mm), 3" (76)mm, 3.25" (82.5mm)
Roll diameter	1ply - max.2.25", 2ply - max.3"
Thickness	1ply - max.0.003" (0.07mm) to 0.004" (0.10mm) 2ply - max. 0.006"(0.14mm)
Motor terminal voltage	DC24V \pm 10%
Current	Max.150mA in operation, Av.70mA
Power consumption	Av. 1.7W
Reliability	5 million lines
Dimensions (mm)	118 (W) X 74.5 (D) X 90 (H)
Weight	Approx. 225g

AUTOCUTTER

Star offers a range of autocutters including full or partial cut versions, as well as the more sophisticated models which are capable of both. Each version is highly durable and meets the requirements of today's EPOS users



OPEN FRAME THERMAL PRINTERS

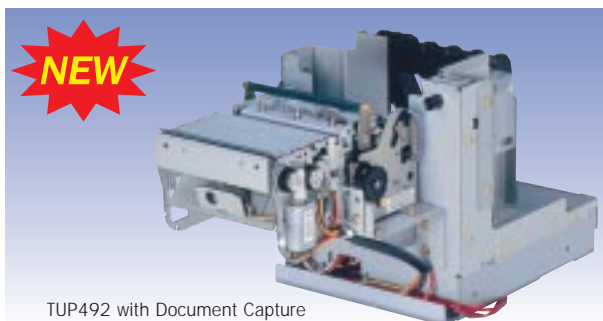


TUP482 with presenter

TUP452

Open frame thermal printers are also available with similar performance specifications to the TMP400 Series. They offer a fast, effective and reliable kiosk printing solution and include a unique paper presenter which issues the receipt after it has been printed and cut within the kiosk.

Contact Star for the latest Printer Range Brochure.



TUP492 with Document Capture

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