

# **Specifications**

## **Classic Line**

## LM900 / LM90I / LM90I XL Pick & Place System

### Technical Data\*

		LM900	LM90I	LM90I XL
Productivity	Placement speed	300 - 600 cph		
	Placement area	425 x 310 mm		625 x 510 mm
	Lift of assembling head	max. 26 mm		
	Rotation angle	0 - 360 grade		
	Feeder setup	<1 Minute for completion each tapeFEEDER		
	Job changeover time	<1 Minute (loading job, restart production)		
Feeder	System	FRITSCH tapeFEEDER		
	Capacity 8 mm tapeFEEDER	max. 74		max. 110
	Tape width	8 - 32 mm		
Feeding system	Roll	FRITSCH tapeFEEDER		
	Tape	Universal Tape Strip Feeder, Tape Strip Dispenser		
	Stick	IC-Dispenser		
	Tray	Trayholder		
	Loose components	Carousel with max. 124 container, Paternoster with max. 504 container, Support stand max. 36 container		
	Special feeder	On request		
Components	Size range	020I – 70 x 70 mm		
	max. height (on PCB = 1,6 mm)	20 mm		
	max. weight	100 g (with tool 971.390.01)		
PCB	min. size	8 x 8 mm		
	max. size	550 x 310 mm		750 x 510 mm
	max. thickness	4 mm		
	max. clearance	39 – 50 mm		

\* The technical data are maximal values and in part only reachable on certain conditions with optional extensions.

### Configurations

		LM900	LM90I	LM90I XL
Machine base	Pick & Place heads	max. 1		
	LED-lighting	-	•	•
	Handrest	•	•	•
	Tool changer	Δ	Δ	Δ
Time-pressure Dispensing system	Dispensing heads	-	max. 1	
	Syringe adapter	-	Δ (3, 5, 10 cm <sup>3</sup> )	Δ (3, 5, 10 cm <sup>3</sup> )
	Programmable dispensing times	-	Up to three various dispensing times	
	Adjustable dispensing pressure	-	max. 4 bar	
PCB handling	PCB support rail	Δ	Δ	Δ
	PCB support with pins	Δ	Δ	Δ

Subject to change. 06/2020

## LM900 / LM90I / LM90I XL Pick & Place System

		LM900	LM90I	LM90I XL
Software	WIN I0	Δ	Δ	Δ
	FRITSCH Classic Software	Δ	Δ	Δ
	Touchscreen	Δ	Δ	Δ
	Component data bank	Δ	Δ	Δ
Options	X/Y locking	-	Δ	Δ
	Z-locking	-	Δ	Δ
	Z-locking with footswitch	-	Δ	Δ
	Dispensing system Time/pressure	-	Δ	Δ
	Work space illumination	Δ	Δ	Δ
	Camerasystem	Δ	Δ	Δ
Accessories	tapeFEEDER 8-32mm	Δ	Δ	Δ
	IC-Dispenser 8-32mm	Δ	Δ	Δ
	Universal Tape Strip Feeder	Δ	Δ	Δ
	Support with container	Δ	Δ	Δ
	Carousel	Δ	Δ	Δ
	Paternoster	Δ	Δ	Δ
	Flipping station	Δ	Δ	Δ
	Trayholder	Δ	Δ	Δ

- Included in starter pack
- Δ Optional retrofittable

### Machine details and values of supply

		LM900	LM90I	LM90I XL
Dimensions of machine	Base dimensions (X, Y, Z)	700 x 680 x 340 mm		900 x 880 x 340 mm
	max. throat (X, Y, Z)	700 x 1200 x 340 mm		900 x 1600 x 340 mm
	Reasonable working area for machine (X, Y)	1100 x 1200 mm		1300 x 1600 mm
	Weight without feeder	29 kg		45 kg
Supplies	Voltage	220 - 240 V, AC (optional 110V, AC)	100 - 250 V, AC	
	Power input	5 VA	50 VA	
For dispensing unit	Compressed air	-	min. 3-6 bar (oil and dust-free air)	
	Compressed air connection	-	Coupling plug (NW7,2) ¼ Zoll	
	Air consumption	-	1,5 l/min	
Environment	Humidity	50 - 75 %		
	Operating temperature	15 - 30° C		
	Noise generation	50 - 70 dB		

Subject to change. 06/2020

## SM902 / SM902 XL / SM902professional / SM902professional XL Pick & Place System

### Technical Data\*

		SM902	SM902 XL	SM902 professional	SM902 professional XL
Productivity	Placement Speed	400 - 700 cph		500 - 800 cph	
	Placement Area	425 x 310 mm	625 x 510 mm	375 x 235 mm	575 x 435 mm
	Lift of Pick & Place Head	max. 26 mm			
	Rotation angle	0 - 360 grade			
	Placement Accuracy	-		0,1 mm	
	Motor-driven eye	-		0,018 mm	
	Feeder Setup	<1 Minute for completion each tapeFEEDER			
	Job changeover time	<1 Minute (loading job, restart production)			
Feeder	System	FRITSCH tapeFEEDER			
	Capacity 8 mm tapeFEEDER	max. 74	max. 110	max. 74	max. 110
	Tape width	8 - 32 mm			
Feeding systems	Roll	FRITSCH tapeFEEDER			
	Tape strip	Universal Tape Strip Feeder, Tape Strip Dispenser			
	Stick	IC-Dispenser			
	Tray	Trayholder			
	Loose components	Carousel with max. 124 container, Paternoster with max. 504 container, Support stand with max. 36 container			
	Special feeder	On request			
Components	Size range	0201 – 70 x 70 mm		0201 – 40 x 40 mm	
	max. height (on PCB = 1,6 mm)	20 mm		7 mm	
	max. weight	100 g (with tool 971.390.01)			
PCB	min. size	8 x 8 mm			
	max. size	550 x 310 mm	750 x 510 mm	390 x 310 mm	590 x 510 mm
	max. thickness	4 mm			
	max. clearance	39 - 50 mm			

\* The technical data are maximal values and in part only reachable on certain conditions with optional extensions.

### Configurations

		SM902	SM902 XL	SM902professional	SM902professional XL
Machine base	Pick & Place heads	max. 1			
	LED-lighting	•	•	•	•
	Handrest	•	•	•	•
	Tool changer	•	•	•	•
Time-pressure Dispensing system	Dispensing heads	max. 1			
	Syringe adapter	Δ (3, 5, 10 cm <sup>3</sup> )	Δ (3, 5, 10 cm <sup>3</sup> )	Δ (3, 5, 10 cm <sup>3</sup> )	Δ (3, 5, 10 cm <sup>3</sup> )
	Programmable dispensing times	Up to three various dispensing times			
	Adjustable pressure	max. 4 bar			

Subject to change. 06/2020

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## SM902 / SM902 XL / SM902professional / SM902professional XL Pick & Place System

		SM902	SM902 XL	SM902 <i>professional</i>	SM902 <i>professional XL</i>
PCB handling	PCB support rail	Δ	Δ	Δ	Δ
	PCB support with pins	Δ	Δ	Δ	Δ
Software	WIN I0	Δ	Δ	Δ	Δ
	FRITSCH Classic Software	●	●	●	●
	Touchscreen	Δ	Δ	Δ	Δ
	Component data bank	●	●	●	●
	CAD- data conversion	Δ	Δ	Δ	Δ
Options	X/Y locking	Δ	Δ	Δ	Δ
	Z-locking	Δ	Δ	Δ	Δ
	Z-locking with footswitch	Δ	Δ	Δ	Δ
	Work space illumination	Δ	Δ	Δ	Δ
	Camerasystem	Δ	Δ	Δ	Δ
Accessories	tapeFEEDER 8 – 32 mm	Δ	Δ	Δ	Δ
	IC-Dispenser 8 – 32 mm	Δ	Δ	Δ	Δ
	Universal Tape Strip Feeder	Δ	Δ	Δ	Δ
	Support with container	Δ	Δ	Δ	Δ
	Carousel	Δ	Δ	Δ	Δ
	Paternoster	Δ	Δ	Δ	Δ
	Flipping station	Δ	Δ	Δ	Δ
Tray holder	Δ	Δ	Δ	Δ	

- Included in starter pack
- Δ Optional retrofittable

### Machine details and values of supply

		SM902	SM902 XL	SM902 <i>professional</i>	SM902 <i>professional XL</i>
Dimensions of machine	Base dimensions (X, Y, Z)	700 x 680 x 340 mm	900 x 880 x 340 mm	700 x 680 x 340 mm	900 x 880 x 340 mm
	Max. throat (X, Y, Z)	700 x 1200 x 340 mm	900 x 1600 x 340 mm	700 x 1200 x 340 mm	900 x 1600 x 340 mm
	Reasonable working area for machine (X, Y)	1100 x 1200 mm	1300 x 1600 mm	1100 x 1200 mm	1300 x 1600 mm
	Weight without feeder	29 kg	45 kg	31 kg	45kg
Supplies	Voltage	100 - 250 V, AC			
	Power input	80 VA		90 VA	
For dispensing unit	Compressed air	3 - 6 bar (oil and dust-free air)			
	Air consumption	1,5 l/min			
	Compressed air connection	Coupling plug (NW7,2) ¼ Zoll			
Environment	Humidity	50 - 75 %			
	Operating temperature	15 - 30° C			
	Noise generation	50 - 70 dB			

Subject to change. 06/2020

## LMdispense / LMinline Pick & Place- / Dispensing system

### Technical Data\*

		LMinline	LMdispense
Productivity	Placement/dispensing rate	300 - 600 dots/cph	300 - 600 dots/cph
	Placement/dispensing area	530 x 300 mm	380 x 310 mm
	Lift of Pick & Place/Dispensing head	max. 26 mm	
	Rotation angle	0 - 360 Grad	-
	Feeder setup	<1 Minute for completion each tapeFEEDER	-
	Job changeover time	<1 Minute (loading job, restart production)	
Feeder	System	FRITSCH tapeFEEDER	-
	Capacity 8 mm tapeFEEDER	max. 47	-
	Tape width	8 - 32 mm	-
Feeding systems	Roll	FRITSCH tapeFEEDER	-
	Tape strip	Universal Tape Strip Feeder, Tape Strip Dispenser	-
	Stick	IC-Dispenser	-
	Tray	Trayholder	-
	Loose components	Carousel with max. 124 container, Paternoster with max. 504 container, Support stand with max. 36 container	-
	Special feeder	On request	-
Components	Size range	0201 - 70 x 70 mm	-
	max. height (on LP = 1,6mm)	20 mm	-
	max. weight	100 g (with tool 971.390.01)	-
PCB	min. size	50 x 35 mm	8 x 8 mm
	max. size	800 x 300 mm	550 x 310 mm
	max. thickness	10 mm	4 mm
	max. weight	1 kg	-
	max. clearance	28 mm	39 - 50 mm
	Conveyor height	SMEMA 940 - 965 mm	-

\* The technical data are maximal values and in part only reachable on certain conditions with optional extensions.

### Configurations

		LMinline	LMdispense
Machine base	Pick & Place / Dispensing heads	max. 1	
	LED-lighting	•	•
	Handrest	•	•
	Tool changer	Δ	-
Time-pressure Dispensing System	Dispensing heads	max. 1	
	Syringe adapter	Δ (3, 5, 10 cm <sup>3</sup> )	Δ (3, 5, 10 cm <sup>3</sup> )
	Programmable dispensing times	Up to three various dispensing times	Up to nine various dispensing times
	Adjustable pressure	max. 4 bar	

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## LMdispense / LMinline Pick & Place- / Dispensing system

		LMinline	LMdispense
PCB handling	PCB support rail	-	Δ
	PCB support with pins	-	Δ
Software	WIN I0	Δ	Δ
	FRITSCH Classic Software	Δ	Δ
	Touchscreen	Δ	Δ
	Component data bank	Δ	Δ
Optionen	X/Y locking	Δ	Δ
	Z-locking	Δ	Δ
	Z-locking with foot switch	Δ	Δ
	Dispensing system Time-pressure	Δ	●
	Working space illumination	Δ	Δ
	Camera system	Δ	Δ
Accessories	tapeFEEDER 8 – 32 mm	Δ	-
	IC-Dispenser 8 – 32 mm	Δ	-
	Universal Tape Strip Feeder	Δ	-
	Tray with container	Δ	-
	Carousel	Δ	-
	Paternoster	Δ	-
	Flipping station	Δ	-
	Trayholder	Δ	-

- Included in starter pack
- Δ Optional retrofittable

### Machine details and values of supply

		LMinline	LMdispense
Dimensions of machine	Base dimensions (X, Y, Z)	1000 x 800 x 1300 mm	700 x 680 x 340 mm
	Max. throat (X, Y, Z)	1000 x 1200 x 1300 mm	700 x 1200 x 340 mm
	Reasonable working area for machine (X, Y)	1100 x 2000 mm	1100 x 1200 mm
	Weight without feeder	80 kg	29 kg
Supplies	Voltage	100 - 250 V, AC	
	Power input	50 VA	120 VA
For dispensing unit	Compressed air	min. 3 - 6 bar (oil and dust-free air)	
	Air consumption	Coupling plug (NW7,2) ¼ Zoll	
	Compressed air connection	1,5 l/min	
Environment	Humidity	50 - 75 %	
	Operating temperature	15 - 30° C	
	Noise generation	50 - 70 dB	

Subject to change. 06/2020

## MP904 Pick & Place system

### Technical Data\*

		MP904.410/411	MP904.420/421	MP904.430/431
Productivity	Placement speed	300 - 600 cph	400 - 700 cph	50 - 100 cph
	Placement area	340 x 240 mm		
	Feeder setup	<1 Minute for completion each tapeFEEDER		-
	Job changeover time	<1 Minute (loading job, restart production)		
Manipulator	Z-lift Pick & Place head	26 mm		-
	Rotation angle	0 - 360 grade		-
Fine Pitch / BGA placer	Z-lift	158 mm		
	Rotation angle	17 Grad, +/-0,017°		
	Fine adjustment correction (X-Y-table)	+/- 6 mm		
	Accuracy of fine adjustment	+/- 0,01 mm		
	Mech. Pick & Place accuracy	0,02 mm		
	Camera field of view	12 x 10 mm - 48 x 48 mm		
	Camera resolution	1,3 MP, 1280 x 1024		
	Features	Splitt-Field-Vision		
Feeder	System	FRITSCH tapeFEEDER		Pre-locating fixture
	Capacity 8 mm tapeFEEDER	max. 74		-
	Tape width	8 - 32 mm		-
Feeding systems	Roll	FRITSCH tapeFEEDER		-
	Tape strip	Universal-tape-strip feeder, Tape Strip Dispenser		-
	Stick	IC-Dispenser		-
	Tray	Trayholder		-
	Loose components	Carousel with max. 124 container, Paternoster with max. 504 container, Support stand with max. 36 container		-
	Special feeder	On request		On request
Components	Range	0201 – 70 x 70 mm		0201 – 48 x 48 mm
	max. height (on PCB = 1,6 mm)	20 mm		6 mm (standard) 20 mm (optional)
	max. weight	100 g (with tool 971.390.01)		
PCB	min. size	8 x 8 mm		
	max. size	340 x 240 mm		
	max. thickness	4 mm		
	max. clearance	19 - 30 mm		

\* The technical data are maximal values and in part only reachable on certain conditions with optional extensions.



## MP904 Pick & Place system

### Configurations

		MP904.410/411	MP904.420/421	MP904.430/431
Machine base	Pick & Place heads	max. 1		-
	LED-lightening	●	●	-
	Handrest	●	●	-
	Tool changer	Δ	●	-
Time-pressure-dispensing system	Dispensing heads	max. 1		-
	Syringe adapter	Δ (3, 5, 10 cm <sup>3</sup> )	Δ (3, 5, 10 cm <sup>3</sup> )	-
	Programmable dispensing times	Up to three various dispensing times		-
	Adjustable dispensing pressure	max. 4 bar		-
PCB handling	PCB support rail	Δ	Δ	Δ
	PCB support with pins	Δ	Δ	Δ
Software	WIN 10	●	●	●
	FRITSCH Classic Software	Δ	●	-
	Touchscreen	Δ	Δ	Δ
	Component data bank	Δ	●	-
Options	X/Y locking	Δ	Δ	Δ
	Z-locking	Δ	Δ	Δ
	Z-locking with foot switch	Δ	Δ	Δ
	Dispensing system Time/pressure	Δ	Δ	-
	Work space illumination	Δ	Δ	-
	Camera system	Δ	Δ	-
Accessories	tapeFEEDER 8-32mm	Δ	Δ	-
	IC-Dispenser 8-32mm	Δ	Δ	-
	Universal tape strip feeder	Δ	Δ	-
	Tray with container	Δ	Δ	-
	Carousel	Δ	Δ	-
	Paternoster	Δ	Δ	-
	Flipping station	Δ	Δ	-
Tray holder	Δ	Δ	Δ	

- Included in starter pack  
Δ Optional retrofittable

Subject to change. 06/2020

## MP904 Pick & Place system

### Machine details and values of supply

		MP904.410/411	MP904.420/421	MP904.430/431
Dimensions of machine	Base dimensions (X, Y, Z)	1200 x 730 x 480 mm		904.430 = 1200 x 730 x 480 mm 904.431 = 800 x 800 x 480 mm
	Max. throat (X, Y, Z)	1200 x 1300 x 480 mm		904.430 = 1200 x 730 x 480 mm 904.431 = 800 x 800 x 480 mm
	Reasonable working area for machine (X, Y)	1600 x 1300 mm		904.430 = 1200 x 730 mm 904.431 = 800 x 800 mm
	Weight without feeder	58 kg		30 kg
Supplies	Voltage	100 - 250 V, AC		
	Power input	120 VA		
	Compressed air	min. 5 - 6 bar (oil- and dust-free air)	-	
	Compressed air connection	Coupling plug (NW7,2) 1/4 Zoll		-
	Air consumption	20 l/min		-
Environment	Humidity	50 - 75 %		
	Operating temperature	15 - 30° C		
	Noise generation	50 - 80 dB		



**SISTEMI** [www.pcbtech.it](http://www.pcbtech.it)  
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