January 2015

MY200 series
Specification

MY200LX™

MYCRONIC

When passion meets innovation

MY200 series specification – MY200LX

PLACEMENT SPEED AND ACCURACY

PLACEMENT SPEED AND ACCURACY – MY200LX 10/14	
Rated speed [1]	16 000 CPH
IPC 9850 chip net throughput [2, 3]	13 800 CPH
IPC 9850 chip tact time [3]	0.250 s
IPC 9850 chip repeatability 3σ (X, Y, Theta) [3, 6]	45 µm, 1.8°
IPC 9850 chip accuracy @ Cpk = 1.33 (X, Y, Theta) [5, 7]	75 µm, 2.6°
IPC 9850 fine pitch net throughput [2, 4, 8]	3 200 CPH
IPC 9850 fine pitch tact time [4]	0.958 s
IPC 9850 fine pitch repeatability 3σ (X, Y, Theta) [4]	21 µm, 0.05°
IPC 9850 fine pitch accuracy @ Cpk = 1.33 (X, Y, Theta) [4, 5]	35 µm, 0.09°

The above specification achieved with a machine configuration including high precision mounthead (Midas), high speed mounthead (HYDRA Z8L), line scan vision system (LVS) and inline conveyor T3.
The IPC 9850 net throughput and accuracy numbers are obtained simultaneously, with the same machine settings.
The rated speed value is obtained under conditions optimized for speed.

(1) Depending on component and application.
(2) According to IPC 9850. Net throughput = (no of parts x 3600) / (board build time + board transfer time).
(3) According to IPC 9850 0402C verification panel.
(4) According to IPC 9850 QFP64/QFP100 verification panel.
(5) According to IPC 9850 Cpk 1.33 = 4σ + offset.
(6) Chip repeatability with high precision head 36 µm, 1.5°
(7) Chip accuracy with high precision head, 63 µm, 2.2°
(8) Fine pitch net throughput 2 250 CPH and tact time 1.423 s with SVS/DVS.

SYSTEM FEATURES

SYSTEM FEATURES MY200LX
On-the-fly mount order optimization
Vision autoteach with snap-to-grid
Automatic illumination settings
Intelligent feeder concept – Agilis
Automatic feeder and component recognition
On-the-fly feeder loading
Dynamic feeder positions
Automatic board stretch compensation
Automatic conveyor width adjustment
Intelligent surface impact control
Tool collision avoidance
Multi-user, multi-tasking system software
Open software interfaces for factory integration
SQL database engine
Programmable light settings fiducial camera

COMPONENT RANGE

HIGH PRECISION MOUNTHEAD – MIDAS	
Component range	Chip (from 01005) [1], SOIC, PLCC, TSOP, QFP, BGA, flip chip, odd-shape, surface-mount connectors, through-hole components, CSP, CCGA, DPAK, Alcap, Tantalum
Component specification	Min: 0.4 x 0.2 mm (0.016″ x 0.008″) (01005) Max: 56 x 56 x 15 mm (2.20″ x 2.20″ x 0.59″) Max: component weight: 140 g [2]

(1) Requires dual vision system (DVS) or line scan vision system (LVS). Standard vision system (SVS) chip from 0402.
(2) Depending on mounthead, mount tool, package, and production altitude.

HIGH SPEED MOUNTHEAD – HYDRA Z8L (OPTIONAL)	
Component range	Chip (from 0201), SO8, SO14, SOT23, MELF
Component specification	Min: 0.6 x 0.3 mm (0.02″ x 0.01″) (0201) Max: 8.70 x 8.70 x 5.60 mm (0.34″ x 0.34″ x 0.22″)

ELECTRICAL VERIFIER (OPTIONAL)	
Component range	Resistor, capacitor, unipolar capacitor, diode (forward voltage, reverse current), Zener diode (voltage drop), transistor (current gain)
Verification time	On-the-fly

FEEDER CAPACITY

FEEDER CAPACITY 8 MM TAPE		
	T3	T4
MY200LX-10	112	96
MY200LX-14	176	160

BOARD HANDLING

INLINE CONVEYOR		
	T3	T4
Maximum board size	443 x 508 mm (17.4″ x 20″)	575 x 508 mm (22.6″ x 20″)
Maximum board size with ML adaptor [1]	419 x 443 mm (16.5″ x 17.4″)	554 x 443 mm (21.8″ x 17.4″)
Minimum board size [2]	70 x 50 mm (2.7″ x 2″)	70 x 50 mm (2.7″ x 2″)
Board thickness range	0.4 – 6.0 mm (0.016″ – 0.24″)	0.4 – 6.0 mm (0.016″ – 0.24″)
Board edge clearance top and bottom	3.2 mm (0.13″)	3.2 mm (0.13″)
Top side clearance (max)	15 mm (0.59″)	15 mm (0.59″)
Bottom side clearance (max)	32 mm (1.25″)	32 mm (1.25″)
Maximum board weight	5 kg (11 lbs)	8 kg (17 lbs)
Board transfer height	Conforms to SMEMA standard for board transfer height. Height adjustable from 880 to 975 mm (34.6″ to 38.4″).	
Operation mode	Inline, manual, inline odd-board, left-to-right / right-to-left.	

(1) Optional. Suitable for irregular sized and odd-shaped boards.
(2) Recommended board train specification: 90 x 50 mm (3.5″ x 2″) board size, 1.6 mm (0.06″) thickness.

VISION CAPABILITY

STANDARD VISION SYSTEM, DUAL VISION SYSTEM (OPTIONAL)				
COMPONENT TYPE	CAMERA	MAX ACTIVE FIELD OF VIEW	MIN PITCH	MIN LEAD WIDTH
Leaded components	SVC [1]	56 x 52 mm (2.20″ x 2.04″)	0.40 mm (16 mil)	0.20 mm (8 mil)
	HRC [2]	15 x 15 mm (0.59″ x 0.59″)	0.10 mm (4 mil)	0.05 mm (2 mil)
Bumped components	SVC [1]	56 x 52 mm (2.20″ x 2.04″)	0.50 mm (20 mil)	0.25 mm (10 mil)
	HRC [2]	15 x 15 mm (0.59″ x 0.59″)	0.16 mm (6.3 mil)	0.08 mm (3.1 mil)

(1) Standard vision camera in dual vision system (DVS).
(2) High resolution camera in dual vision system (DVS).

LINESCAN VISION SYSTEM				
COMPONENT TYPE	CAMERA	MAX ACTIVE FIELD OF VIEW	MIN PITCH	MIN LEAD WIDTH
Leaded components	LVC	80 x 70 mm [1] (3.1″ x 2.8″)	0.20 mm (8 mil)	0.10 mm (4 mil)
Bumped components	LVC	80 x 70 mm [1] (3.1″ x 2.8″)	0.30 mm (12 mil)	0.15 mm (6 mil)

(1) Customized field of view available: 160 x 30 mm (6.3″ x 1.2″).

SOFTWARE

SOFTWARE MODULES (OPTIONAL)

Shared databases
Line mode
PCB ID (2D barcode)
Electrical measurement log
Pre-pick inspection
Barcode software

OFFLINE SOFTWARE TOOLS (OPTIONAL)

Data preparation – MYCenter
Optimization and scheduling – MYPlan
Inventory management and kitting – MYCenter
Traceability – MYTrace
Line automation – FlowLine

MISCELLANEOUS

INSTALLATION REQUIREMENTS

Power requirements	Three phase AC 6.6 kVA (3 x 2.2 kVA)
Power consumption	1.5 kW (average)
Voltages	3 x 200, 210, 220, 230, 240, 250 +/- 10%, Y or Delta
Air supply	No air required
Noise	65 dBA
Air temperature	+18 to +35 °C (65 to 95 °F)
Air humidity	< 95% RH non condensing

MACHINE WEIGHT (1)

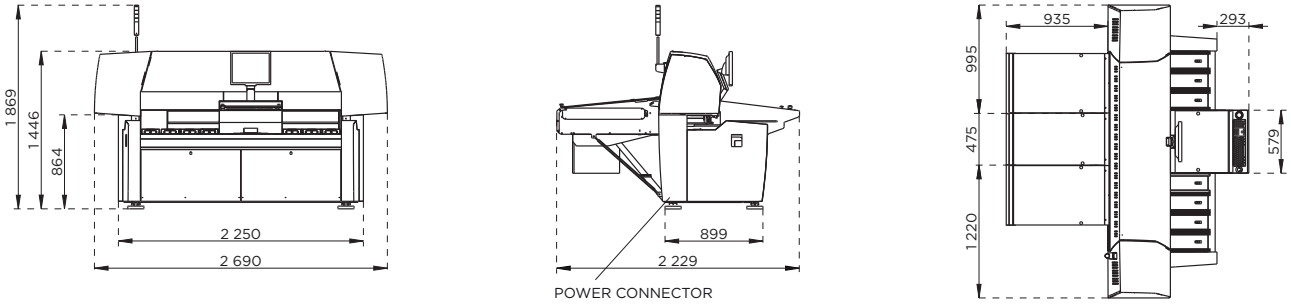
MY200LX-10	1 400 kg (3 100 lbs)
MY200LX-14	1 700 kg (3 700 lbs)

(1) Total machine weight excluding magazines..

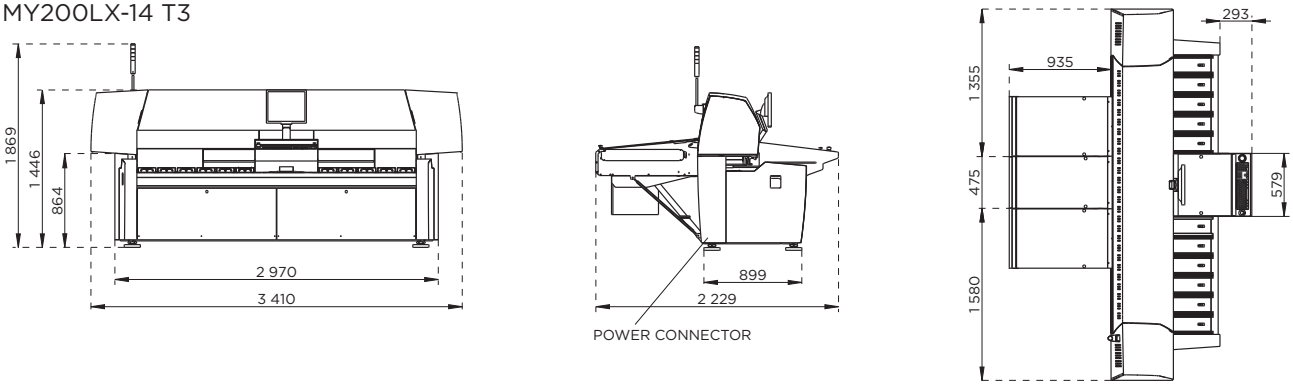
DIMENSIONS

in mm.

MY200LX-10 T3



MY200LX-14 T3



SWEDEN
Mycronic AB
PO Box 3141
Nytorpsvägen 9
SE-183 03 Täby
Sweden
Tel: +46 8 638 52 00
Fax: +46 8 638 52 90

GERMANY
Mycronic GmbH
Tel: +49 89 4524248-0
Fax: +49 89 4524248-80

UK
Mycronic Ltd.
Tel: +44 1202 723 585
Fax: +44 1202 723 269

FRANCE
Mycronic S.A.S.
Tel: +33 1 41 80 15 80
Fax: +33 1 46 86 77 89

NETHERLANDS
Mycronic B.V.
Tel: +31 402 62 06 67
Fax: +31 402 62 06 68

USA
Mycronic Inc.
Tel: +1 978 948 6919
Fax: +1 978 948 6915

SOUTH KOREA
Mycronic Co. Ltd.
Tel: +82 31 387 5111
Fax: +82 31 388 0087

CHINA
Mycronic Co., Ltd.
Tel: +86 21 3252 3785/86
Fax: +86 21 3252 3780

SINGAPORE
Mycronic Pte Ltd.
Tel: +65 6281 7997
Fax: +65 6281 7667

JAPAN
Mycronic Technologies Corporation
Tel: +81 42 354 1320
Fax: +81 42 354 1321

www.mycronic.com

MYCRONIC

P-001-0264 rev 0001 / January 2015