

SCORPION G2 Automatic Dispensing System

Version 1.6, May 2017

Configuration

		SC-G2	SC-C-G2	SC-CA-G2
Machine base	Standalone type	●		
	Inline type		●	●
	Signal tower (3 color)	●	●	●
	Interior lighting LED	●	●	●
PCB Handling	Magnetic PCB holder	●		
	Inline conveyor 3 stage		●	●
	Manual/auto adjustment		Manual	Auto
	SMEMA interface		●	●
	Conveyor direction L/R, R/L, batch mode R/R, L/L		●	●
Control and software	Machine PC with Windows 10 OS and 21.5" touch screen	●	●	●
	ePlace disp. software (En, De, Ru, Pl, Zh, Es, Cs, Ja)	●	●	●
	Technical support software	●	●	●
Alignment systems	Fiducial inspection vision	●	●	●
	Automatic fiducial recognition	●	●	●
	Cognex Base vision	●	●	●
Dispensing valves ¹⁾ (Cartridge sizes)	Time/pressure valve (5, 10, 30 cm ³)	○	○	○
	Archimedean screw valve (5, 10, 30 cm ³)	○	○	○
	Volume Dispenser valve (10, 30, 50 cm ³)	○	○	○
	Jet valve (5, 10, 30 cm ³)	○	○	○
	P-Jet valve (5, 10 cm ³)	○	○	○
Miscellaneous	Automatic needle calibration	●	●	●
	Purge station	●	●	●
	Vacuum needle cleaning station	○	○	○
	Height mapping	○	○	○
	Jet valve heating systems	○	○	○
	Bad mark sensing with vision	●	●	●
	Universal CAD conversion	●	●	●
	Calibration set Dispensing	●	●	●

● standard feature ○ optional feature

Specifications

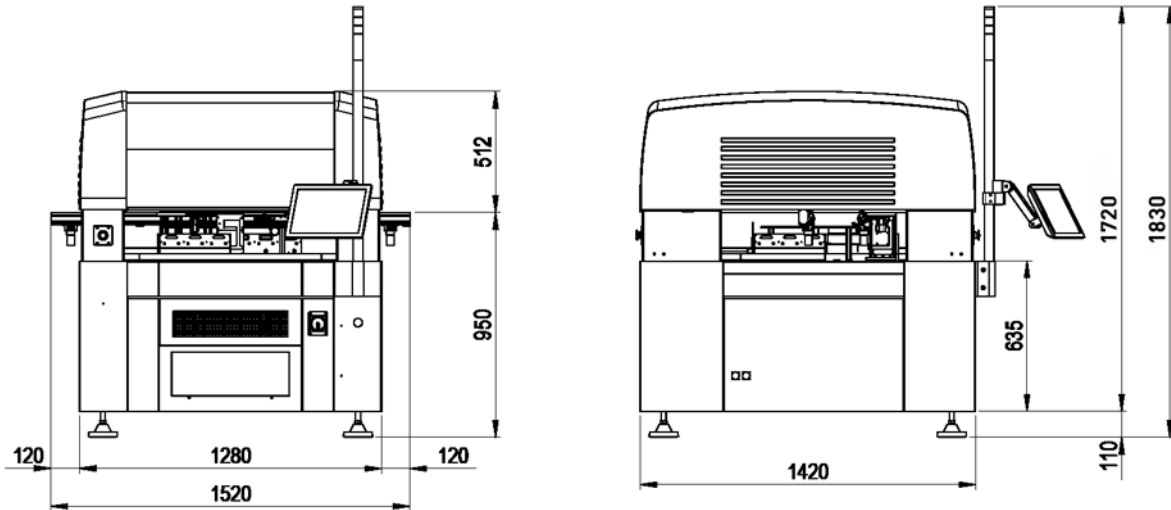
		SC-G2	SC-C-G2 / SC-CA-G2
Process	Max. dispensing speed ²⁾	Jet valve: 100.000 dots/h, time/pressure valve: 20.000 dots/h, screw valve: 20.000 dots/h, piezo flow valve: 20.000 dots/h P-Jet valve: 60'000 dots/h	
	Dispensing mode	dot, line, curve, interpolated curves on multiple layers	
	Programmable z-stroke	up to 80 mm (3.35")	
	Process height	Up to ± 18 mm (0.71") from zero height (other heights on request)	
Accuracy	Linear encoder resolution (x,y)	0.04 µm	
	Placement Accuracy XY Dots	± 51 µm (3σ) ³⁾	
	Positioning Accuracy Z Axis	± 20 µm (3σ) ³⁾	
PCB	Min. PCB dimensions	20 x 20 mm (0.8"x0.8")	50 x 50 mm (2x2")
	Max. PCB dimensions	600 x 430 mm (23.6x16.9")	600 x 400 mm (23.6x15.7")
	PCB thickness	0.5 - 5 mm (0.02-0.2")	
	PCB edge clearance	3.0 - 5.0 mm (0.11 - 0.2") (varies with PCB thickness)	Top side 3.0 mm (0.11") Bottom side 5.0 mm (0.2")
	Max. Board weight	4 kg (8.8 lb)	
	Clearance below PCB	40 mm (1.57")	
Supplies	Electrical	230 V / 50 Hz or 120 V / 60 Hz	
	Power consumption	1 kW	
	Required circuit breaker	16A / 230 V Type C16	
	Required RCD	30 mA (Type B, sensitive to universal current)	
	min. wire cross selection	1.5 mm ²	
	Earth	TN-S	
	Electrical connector	230V: CEE-16, 16A, 230V, 3P L+N+PE 6h, blue color 120V: CEE-16, 16A, 120V, 3P L+N+PE 4h, yellow color	
	Compressed air	6-7 bar, clean and filtered, not condensed, ISO 8573-1: class 3 (max part diameter 5 µm, dew point < -20°C, oil ≤ 1 mg/m ³)	
	Air consumption	Max. 25 NI / min. (depends on application)	
	Air connection	Push-in connector for outer hose Ø8 mm	
Environment	Performance temperature / humidity range	22 - 24°C / 50 - 70% RH	
	Operational temperature / humidity range	15 - 30°C / 30 - 70 % RH (non condensing)	
	Noise level	75 dB (A) max.	



Machine Dimensions and Packaging

Machine dimensions	Machine footprint	128x142 cm (50.4x55.9")
	Operating floor space	170x225 cm (59.8"x82.7")
	Machine height ⁴⁾	146.2 cm (57.6")/ 183cm (72.1") incl. light tower
	Machine weight	1'260 kg (2'778 lb)
	Floor loading	800 kg/m ² (1.14 lb p sq in)
	Conveyor height	SMEMA: 940 – 965 mm (37" – 38")
	Packaging weight	80 kg (176 lb)

Dimension Drawings



- 1) Consult SCORPION G2 System Description for possible valve configurations
- 2) Depending on application
- 3) Depending on movement speed, up to 4 different speed modes available. Only applicable to zero height and performance temperature and humidity range
- 4) Depending on adjusted feet height

For more information ask for the SCORPION G2 System Description

Disclaimer & Copyright:

We reserve the right to make changes without notice. All materials contained in this brochure are copyright © Essemtec AG, Switzerland, May 2017