

Leading Innovation >>>

## CK1 & CK1L

### High-quality Industrial Inkjet Heads



#### Quality

Smooth greyscales and excellent print quality, achieved by consistent drop formation and volumes, combined with accurate and repeatable dot placement.

#### Productivity

Robust head design and precise manufacturing tolerances ensure high print production yields. Heads are available in large quantities.

#### Throughput

The CK1L head is designed for high throughput with large drop volumes – ideal for applications such as ceramic decoration.

#### Versatility

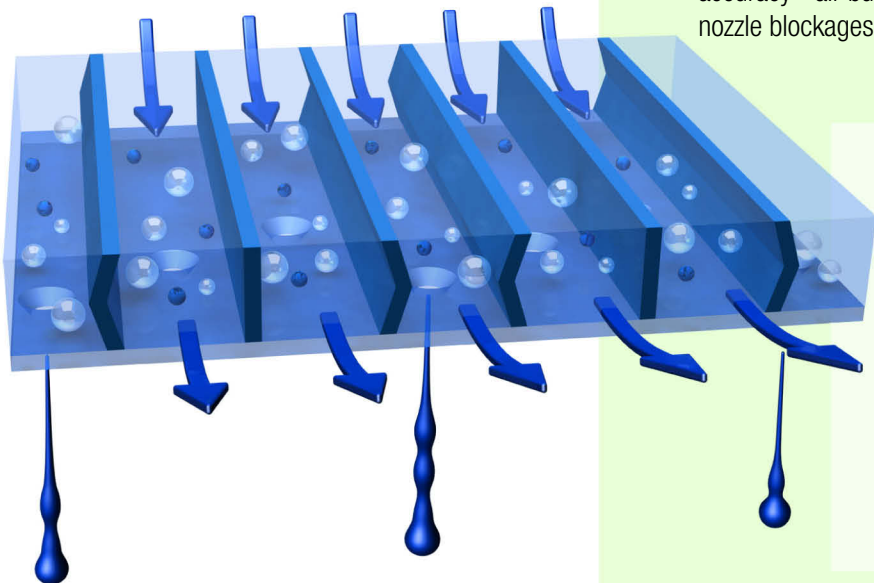
Capable of handling high viscosity and gravity fluids. UV-curing and oil-based fluids are supported. The range of applications is extensive.

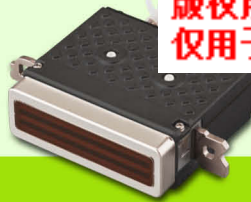
#### Reliability

The through-channel fluid recirculation system, combined with side-shooter architecture guarantees excellent jetting performance and accuracy - air bubbles, drop deflection through sedimentation, and nozzle blockages are all eliminated.

Through-channel fluid recirculation benefits:

1. Air bubbles and unwanted particles are carried away from the nozzle.
2. Continuous fluid motion across nozzles prevents sedimentation, eliminating drop deflection and blockages.
3. A constant fluid temperature is maintained, ensuring consistent drop formation.
4. Auto-recovery from nozzle blockages minimizes fluid and substrate wastage.

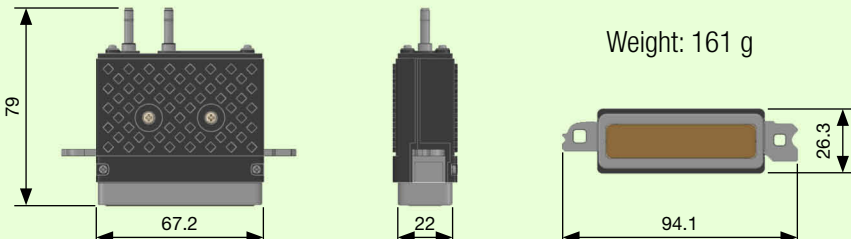
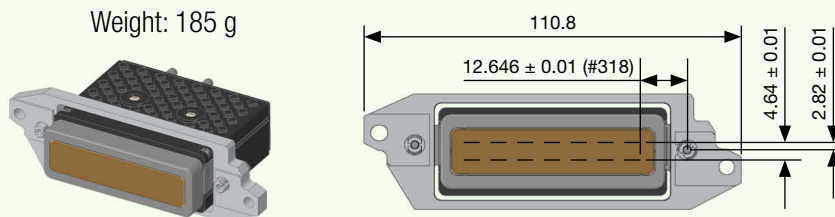




## Specifications

CK1

CK1L

Print method	Drop-on-Demand piezo	
Print width	53.657 mm	
Active nozzles	636	
Resolution	300 dpi	
Nozzle pitch	84.5 $\mu$ m	
Greyscale levels	8 levels (0, 1-7 dpd)	4 levels (0, 5-7 dpd)
Drop volumes	6-42 pl	51-90 pl
Print frequency <sup>1</sup>	4.97 kHz (at max. dpd)	4.8 kHz (at max. dpd)
Linear speed <sup>1</sup>	25 m/min (at max. dpd)	24 m/min (at max. dpd)
Piezo driving voltage	14-31 Volts	
Drop velocity	9-11 m/s	7-9 m/s
Jettable fluids	UV-curing & oil-based (consult us for compatibility assurance)	
Standard dimensions (mm) for both CK1 and CK1L		
Dimensions (mm) with optional positioning plate <sup>2</sup>		

<sup>1</sup> Maximum print speed and linear frequency can be increased by reducing the number of drops per dot (dpd).

<sup>2</sup> A factory-fitted option enabling easy and accurate head positioning with a precision of 10  $\mu$ m to the 1st nozzle.

CK1/CK1L heads are designed with a different internal structure from CF10u/CF1L heads.

**TOSHIBA TEC CORPORATION**