Videojet® 7810 UV Laser

Our UV laser delivers high-contrast, permanent codes enabling product lifetime track and trace security for pharmaceutical, medical and cosmetic manufacturers.

Packaging operations that require high-quality, traceable codes for camera readability can rely on the Videojet UV laser to help meet industry regulatory requirements, such as the U.S. Food and Drug Administration’s Unique Device Identification. Direct marking of permanent codes helps prevent the risk of counterfeiting or manipulation to your product identification.

The 7810 applies crisp 2D, alphanumeric and other typical codes at high speeds onto high-density polyethylene fibers such as DuPont™ Tyvek® and commonly used, rigid plastic materials such as white HDPE and LDPE. Videojet 360° Arc Compensation Software helps ensure the same mark quality can be achieved on rotational devices as well as straight line applications.

**Uptime Advantage**
- Zero consumables to replace during day-to-day operation keeps lines running longer
- Maximum printer availability with air-cooled laser source that virtually eliminates unscheduled downtime
- No daily mechanical maintenance procedures help increase uptime

**Built-in productivity**
- High throughput on both rotary and linear applications up to 250 products per minute
- UV wavelength enables high speed marking-on-the-fly of HDPE/LDPE packaging to increase efficiency
- Mark quality, vision readable 2D codes up to (5.0 m/sec.)

**Code Assurance**
- Permanent codes help ensure complete product lifetime traceability and anti-counterfeiting
- Videojet 360° Arc Compensation Software feature enables consistent high-quality marks on rotational devices virtually eliminating distortion
- Repeatable high contrast color change for top grade vision readability on white HDPE/LDPE packaging

**Simple usability**
- Coding processes are simplified through the ability to mark any code, in any orientation, anywhere on the product
- UV wavelength marks high resolution and high contrast onto HDPE/ LDPE without the need for additives and revalidation of packaging materials
Videojet® 7810
UV Laser Marking System

Marking fields
64 x 76 mm² (SS10, f=103 mm) - 375 x 375 mm² (SS07/SS10, f=511 mm)

Marking heads
SS10 and SS7 with focusing lenses: f=103 mm/160 mm/214 mm/511 mm

Marking speed
Up to 500 characters per second; 984 ft/min (300 m/min)

Laser source
Pulsed Nd: YVO₄ (Vanadat)
Power class: 2-Watt
Central emission wavelength: 355nm

Beam deflection
2 high-speed galvanometer scanners

Beam orientation
90 degree

Operator interface
Smart Graph software on PC; configurable in 12 languages

Language capabilities
Chinese, Czech, Dutch, English US, French, German, Italian, Japanese, Polish, Portuguese, Russian, and Spanish

Communication
Ethernet, TCP/IP and RS232, digital I/Os
Inputs for encoders and product detector triggers
I/Os for start, stop, external error, job select, trigger, trigger enable, encoder; system ready, ready to mark, marking, shutter closed, error, bad, good signals and machine/operator interlocks

Integration
Direct integration into complex production lines via scripting interface
Integration via Ethernet and RS232 interface
Highly precise side guided height adjustment via mounting with T-nut baseplate

Electrical requirements
100-240 VAC (autorange), 50/60 Hz

Power consumption
Typically 400 Watt, 10A

Cooling system
Air cooled

Environment
50 - 104°F (10-40°C) (non-condensing)

Sealing and safety standards
Marking unit: IP20
Supply unit: IP21
LASER CLASS 4 product (acc. to IEC / EN 60825-1:2014)

Approximate weight
Supply unit: 44 lbs. (20 kg)
Marking unit: 55 lbs. (25 kg) max, without F-Theta lens

Applicable certifications
CE, CB, TÜV/NRTL

Marking unit dimensions

Supply cabinet dimensions

CAUTION
VISIBLE AND INVISIBLE LASER RADIATION
LASER CLASS 4
AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION

<table>
<thead>
<tr>
<th>WAVELENGTH</th>
<th>MAX. POWER</th>
<th>MAX. PULSE</th>
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</thead>
<tbody>
<tr>
<td>0.35 - 0.36 µm</td>
<td>10 W</td>
<td>1 mJ / 4 ns</td>
</tr>
<tr>
<td>0.52 - 0.55 µm</td>
<td>1 mW</td>
<td>0.4 µJ / 5 ns</td>
</tr>
<tr>
<td>0.79 - 0.82 µm</td>
<td>1 mW</td>
<td>cw</td>
</tr>
<tr>
<td>1.04 - 1.07 µm</td>
<td>5 mW</td>
<td>2 µJ / 5 ns</td>
</tr>
</tbody>
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(EN 60825-1:2014)