First in Fiber

Telesis continues to lead in the evolution of marking technology with innovations that include Vari-Z, Auto-Focus and Integrated InLine Vision to provide manufacturers with a wide selection of highly versatile laser markers that integrate seamlessly into the production workflow.

With a team of global technical and support specialists, it is no surprise Telesis fiber lasers are positioned in thousands of leading manufacturing plants around the world.

This is Telesis, this is what we do!

Telesis pioneered the use of fiber laser technology in product identification with the Zenith 10F in 2003.

Telesis global satellite and partner locations

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The F2H combines two rugged, industry-best F-Series laser markers with the MERLIN® 2H software for unmatched marking efficiency.

- Patented dual head technology reduces integration time
- Operates two lasers independently with one laser controller system to reduce cost of ownership
- Reduces part handling for increased throughput
Unmatched Versatility

Vari-Z
Variable Z-axis focus adjustment
- With an industry-best focal range of up to \(\pm 4.72"\) (119.89mm), the Vari-Z significantly reduces part and laser positioning time
- Eliminates costs for external Z-axis hardware
- Variable focus eliminates the need for precise laser mounting
- Makes part change-over fast and easy

Auto-Focus
Used with Vari-Z to achieve perfect focus for every cycle
- High quality marks every time
- Eliminates expensive tooling costs
- Features real-time correction for process variability

Integrated InLine Vision
Advanced code reading and custom inspection solution
- Reduces footprint and integration costs compared to external vision system
- **TeleView Option**: Reads and grades data matrix codes and features a live viewing window with laser focus indicator
- **Cognex Option**: Reads and grades to ISO and AIM DPM standards
3-Dimensional Marking

Part marking applications are not always on flat, single-plane surfaces. The Telesis F-Series fiber lasers also mark on cylindrical, multi-plane and angled surfaces without character distortion or depth variation.

**Cylindrical**

Telesis F-Series lasers remain ahead of the technology curve, wrapping text and logos to cylindrical targets.

**Multi-Plane**

With the largest focal range available, Telesis F-Series fiber lasers rapidly adjust the focus to differences in target positions.

**Angled**

In conjunction with the powerful MERLIN® software, the F-Series lasers instantaneously adapt to the depth-to-aspect ratio calculation presented by angled surfaces.
Faster & Cleaner

Deep Engraving

With superior beam quality, the F-Series offers deep engraving capabilities that outperform higher powered systems.

- Focal point adapts to increasing depths with each pass to apply maximum energy to the target surface.
- Telesis’ extensive marking experience combined with the highest quality components delivers the depth required in the shortest possible time.
- Superior beam quality for faster part processing and marking.
**Easy Programming**

**MERLIN® Visual Design Laser Software**

- Complex string management made simple with variable data combinations
- Designed by Telesis and operates on most 32- and 64-bit Windows® operating systems
- Easily interacts with customer supplied databases
- Visually accurate on-screen representation
- Easily integrates with outside equipment and can control the entire marking operation
- Supports multi-step process flow within single marking pattern
- Seamless integration of vision control
  - TeleView software standard (contained within MERLIN®)
- Importable file formats include:
  - AutoCAD DXF
  - Adobe Illustrator
  - Windows® Bitmap images
  - TrueType fonts
  - Corel Vector Graphics
- Supports 4-Axis Movement and Mark-On-The-Fly applications

Optional Automated Machine Interface (AMI) software is a user friendly, customizable run screen for operators

User-friendly interface to easily create arc-text and shapes and import graphics

<table>
<thead>
<tr>
<th>DATE</th>
<th>TIME</th>
<th>PART</th>
</tr>
</thead>
<tbody>
<tr>
<td>20170621</td>
<td>1327</td>
<td>40191</td>
</tr>
</tbody>
</table>

Supports variable data marking, including, serialization and Julian Calendar applications
Telesis ProStations provide a modular way to safely mark components within an enclosure engineered to CDRH Class 1 and ISO13849-1 guidelines.

**ProStation**

- Laser-safe viewing window
- Easy push button control
- Rugged industrial all-steel construction
  - T-slotted base for easy fixture replacement (not shown)
  - Convenient inside lighting (not shown)
- Automatic pneumatic door with safety bump strip
  - Optional light curtain
  - Optional dual palm button
- ISO13849-1 safety circuitry (enclosed within base)
- Heavy duty locking wheel casters
MiniStation
The Telesis MiniStation is ideally suited for safe laser marking in tight, high-traffic applications. The durable, all-steel enclosure requires minimal space.

TablePro
Providing Class I safety standards in a compact, modular design, the Telesis TablePro is ideal for manually loaded benchtop solutions.

DrawerPro
The Telesis DrawerPro features an extruded aluminum frame with polycarbonate panels and interlocking sliding drawer assembly for easy loading and unloading of components.

Customized Enclosures
For unique marking applications, Telesis engineers can custom build a laser marking enclosure to easily integrate into the production line.
## Laser Specifications

### LASER MARKER SPECIFICATIONS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>F30 - F30DS</th>
<th>F50 - F50DS</th>
<th>F75 - F75DS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARK DESCRIPTION</td>
<td>Q-switched Ytterbium Fiber</td>
<td>Q-switched Ytterbium Fiber</td>
<td>Q-switched Ytterbium Fiber</td>
</tr>
<tr>
<td>WAVELENGTH</td>
<td>1060 nm</td>
<td>1060 nm</td>
<td>1060 nm</td>
</tr>
<tr>
<td>AVERAGE POWER</td>
<td>up to 30 watts</td>
<td>up to 50 watts</td>
<td>up to 75 watts</td>
</tr>
<tr>
<td>PULSE FREQUENCY</td>
<td>30-200kHz</td>
<td>30-100kHz</td>
<td>30-100kHz</td>
</tr>
<tr>
<td>POSITIONING</td>
<td>Visible Red Diode Light</td>
<td>Visible Red Diode Light</td>
<td>Visible Red Diode Light</td>
</tr>
<tr>
<td>MARK AREA</td>
<td>Lens Dependent (see chart on page 11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STANDOFF DISTANCE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESOLUTION</td>
<td>16-Bit (marking resolution is lens dependent)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CHARACTER

- BARCODE: ✓ ✓ ✓
- 2D CODE: ✓ ✓ ✓
- GS1 DATABAR: ✓ ✓ ✓
- LOGO IMAGE: ✓ ✓ ✓

### MACHINE OPERATION

- Manual or Automatic

### INTERFACE COMMUNICATIONS

- TCP/IP, Ethernet IP, Profinet, Discrete I/O

### HEAD CABLE

- 3m or 5m

### COOLING

- Air Cooled

### VOLTAGE & POWER USAGE

- 45W
- 68W
- 73W

### ENVIRONMENTAL

- OPERATING TEMPERATURE: 59° - 95° F
- RECOMMENDED TEMPERATURE: 69° - 77° F
- AMBIENT RELATIVE HUMIDITY: 10% - 85% Non-Condensing

### WEIGHT

- CONTROLLER: 33 lbs.
- LASER HEAD: 15 lbs.

### WARRANTY

- 24 month diode; 12 month electronics*

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* Subject to change
PART # | DESCRIPTION
--- | ---
85110-2 | Vanz Ring Light kit
85110-1 | Non-Vanz Ring Light kit

Ethernet/Profinet

| PART # | DESCRIPTION |
--- | ---
81592 | Profinet card for external PC |
81590 | Ethernet IP card for external PC |
81593 | Profinet card for embedded PC |
81591 | Ethernet IP card for embedded PC |
76888 | External Profinet adapter |
77917 | External Ethernet IP adapter |

AutoFocus Kits

| PART # | DESCRIPTION |
--- | ---
83554 | 160mm for Vanz lasers |
83593 | 254mm for Vanz lasers |

Linear Stages

| PART # | DESCRIPTION |
--- | ---
75104 | 350mm X-axis |
84697 | 300 x 200 XY axis |

Communication Module

| PART # | DESCRIPTION |
--- | ---
74446 | MERLIN Opto isolated for 24 VDC |

Start Print Foot Pedal

| PART # | DESCRIPTION |
--- | ---
24373 | Foot Pedal |

Start/Abort Control Unit

| PART # | DESCRIPTION |
--- | ---
24374 | Control Unit |

Rotary Devices

| PART # | DESCRIPTION |
--- | ---
58989 | RD3: 3” Manual rotary chuck |
58990 | RD5: 5” Manual rotary chuck |
80395 | Velmex Precision Rotary |

Lenses

<table>
<thead>
<tr>
<th>PART</th>
<th>LENS</th>
<th>MARKING AREA</th>
<th>STANDBOFF DISTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(mm)</td>
<td>(in)</td>
</tr>
<tr>
<td>79696-1</td>
<td>100mm</td>
<td>65x65</td>
<td>2.56x2.56</td>
</tr>
<tr>
<td>79696-2</td>
<td>160mm</td>
<td>90x90</td>
<td>3.54x3.54</td>
</tr>
<tr>
<td>79696-3</td>
<td>133mm</td>
<td>110x110</td>
<td>4.33x4.33</td>
</tr>
<tr>
<td>79696-4</td>
<td>254mm</td>
<td>175x175</td>
<td>6.89x6.89</td>
</tr>
<tr>
<td>79696-5</td>
<td>300mm</td>
<td>200x200</td>
<td>9.06x9.06</td>
</tr>
<tr>
<td>79696-6</td>
<td>350mm</td>
<td>250x250</td>
<td>9.84x9.84</td>
</tr>
<tr>
<td>79696-7</td>
<td>420mm</td>
<td>290x290</td>
<td>11.42x11.42</td>
</tr>
</tbody>
</table>

Fume Removal Systems

| PART # | DESCRIPTION |
--- | ---
77793 | Fumex FA1 Mini |
76775 | Purex 300i |

Mounting Posts

| PART # | DESCRIPTION |
--- | ---
42389 | Manually adjusted Z-axis Mounting Post |
42393 | Programmable Z-Axis Mounting Post |

Ring Light Kits

| PART # | DESCRIPTION |
--- | ---
79596-1 | 100mm | 65x65 | 2.56x2.56 | 98 (±6) | 3.86 (±0.23)” |
| 79596-2 | 160mm | 90x90 | 3.54x3.54 | 176 (±15) | 7.18 (±0.63)” |
| 79596-3 | 133mm | 110x110 | 4.33x4.33 | 185 (±16) | 7.28 (±0.63)” |
| 79596-4 | 254mm | 175x175 | 6.89x6.89 | 296 (±39) | 11.65 (±1.54)” |
| 79596-5 | 300mm | 200x200 | 9.06x9.06 | 307 (±39) | 12.09 (±1.54)” |
| 79596-6 | 350mm | 250x250 | 9.84x9.84 | 391 | 15.39 |
| 79596-7 | 420mm | 290x290 | 11.42x11.42 | 493 (±120) | 19.45 (±4.72)” |

* Not available for Vanz markers  * Vanz work clearance variance
Laser Dimensions

Vari-Z F-Series

F16I Controller

Model 6 Controller

F14A Controller

Standard F-Series

[Footnotes: 
- Dimensions are in inches (mm) for reference.
- WC refers to Width (WC).
- LENS columns list available lens options.
- Table includes lens codes and corresponding dimensions.}

Diagram showing various controller models with dimensions and lens options.
Enclosure Dimensions

### ProStation Enclosure

- **Dimensions:**
  - L x W x H: 38.5" x 40.64" x 79" (HEIGHT: 104.07"
- **Base:**
  - L x W x H: 39.76" x 37.25" x 11.44"

### MiniStation Enclosure

- **Dimensions:**
  - L x W x H: 23.6" x 41.35" x 78" (HEIGHT: 103.00"
- **Base:**
  - L x W x H: 39.74" x 37.74" x 11.44"

<table>
<thead>
<tr>
<th>PART #</th>
<th>L x W x H</th>
<th>HEIGHT (Door Open)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProStation Enclosure</td>
<td>38.5&quot; x 40.64&quot; x 79&quot;</td>
<td>104.07&quot;</td>
</tr>
<tr>
<td>MiniStation Enclosure</td>
<td>23.6&quot; x 41.35&quot; x 78&quot;</td>
<td>103.00&quot;</td>
</tr>
<tr>
<td>TablePro Enclosure</td>
<td>20&quot; x 28&quot; x 20&quot;</td>
<td>n/a</td>
</tr>
<tr>
<td>DrawerPro Enclosure</td>
<td>24&quot; x 24&quot; x 50&quot;</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Uncommon Dependability

U-Series Lasers

The Telesis U-Series UV Laser Marking Systems are ideal for “cold” marking delicate materials, including electronics, plastics, glass and precious metals.

C-Series Lasers

The C-Series CO₂ lasers are ideally suited for high-speed, mark-on-the-fly manufacturing applications. This versatile laser is suitable for high resolution marking on plastics, labels and many organic materials.
E-Series Lasers

A superior marking laser.

Telesis’ E-Series vanadate lasers produce exceptional beam quality allowing for good contrast on most materials.

The E-Series lasers are particularly well suited for high resolution marking applications.

- Short pulse widths enhance mark quality
- Available in both 1064nm Infrared and 532nm Green
- Longest standard focal range available
PINSTAMP® Dot Peen Marking Systems

Telesis first made its mark in the part identification industry with the rugged PINSTAMP® line of industrial dot peen markers with the patented Floating Pin design. PINSTAMP® remains the industry standard with many still in operation after their original placement in the 1990’s.

TeleScribe® Scribe Marking Systems

TeleScribe® marking systems produce high quality, continuous characters in virtual silence. The high torque stepper motors deliver up to two characters per second in metal and plastics. Available in benchtop and in-line versions.