



*firestar*  
*t70i*

Fully Integrated 70W CO<sub>2</sub> Laser





### firestar *t70i*

Maximum power and performance in a small footprint laser, with the flexibility of air or water-cooling, are among the features that have distinguished Synrad's *firestar t-series* lasers as the industry standard in cutting, marking, and engraving applications. The new *t70i* combines the excellent beam quality and fast rise time that are hallmarks of this technology, with an efficient RF power supply design in a single compact package.

The *t70i* is the ideal laser choice for applications where the laser is mounted on robotic arms or moving gantries, or any application where an external RF supply and cables are undesirable. Simply connect the laser to a 48V DC supply to produce over 70W of output power.

With its rugged, compact, air or water-cooled design, the *t70i* is the perfect combination of power, performance, and price, for OEMs and system integrators.

- 70W
- Integrated RF Power Supply
- Fast Rise Time
- Rugged, 3-point Mounting
- Internal Tickle Signal
- 5-24 VDC I/O Ports
- Remote Control / Status via 15-Pin D-Sub Connector

### Specifications

Output Power	70W
Power Stability	±7% - cold start
Optical Rise/Fall Time	<75 µsecs
Mode Quality	TEM <sub>00</sub> , 95% Purity, M <sup>2</sup> ≤ 1.2
Ellipticity	<1.2
Beam Diameter (1/e <sup>2</sup> )	2.2±0.2mm
Beam Divergence (full angle)	7.0 mRad
Wavelength	10.57-10.63 µm
Polarization	Linear (Vertical)
Cooling	Air or Water
Heat Load (max)	1400W
Flow Rate, Air	195 CFM x 2
Flow Rate, Water (18-22°C)	1.5GPM, <60PSI
Input Voltage / Current	48 VDC / 25 A
Dimensions, Air-Cooled (in)	20.7 x 4.5 x 6.7
(mm)	527 x 114 x 170
Dimensions, Water-Cooled (in)	22.4 x 4.7 x 6.1
(mm)	570 x 120 x 154
Weight, Air-Cooled	13.6 kg / 30 lbs
Weight, Water-Cooled	13.6 kg / 30 lbs

Specifications subject to change without notice.  
Class 4 Laser Product

### Outline & Mounting, *t70i*

