

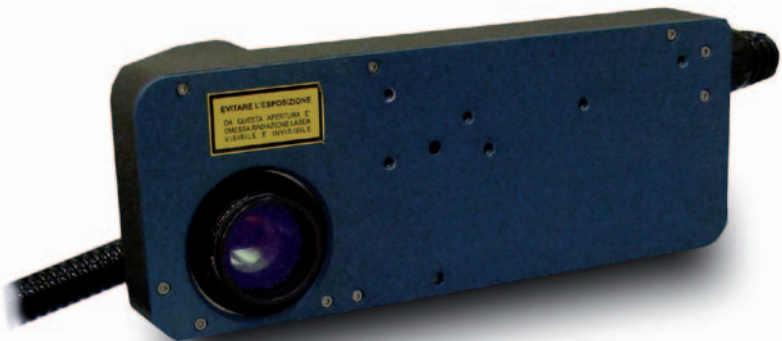
AREX

AREX family represents the ultimate Fiber Laser marking system in unmatched compactness. Thanks to state-of-the-art technology AREX allows high speed marking on metal and plastic material increasing systems productivity typical for Automotive and Electronics industry.

Ultra compact marking head allows ease mechanical installations in the production line or inside a machines where limited space is always a key issue. With the smallest marking head footprint (112x298x90 mm), AREX drastically simplifies system design extending field of use of marking technology in a wide range of applications from stand alone marking solutions as well as production lines.

Available with 10W and 20W laser power emission, AREX is very simple to set up and parameterise using LIGHTER software platform offered as a standard. Thanks to ease of use HMI, operator can define any kind of Label, Logo, Text, Datamatrix, Bar codes for Laser Labelling and Traceability applications. Advanced software functions allow to work in many different conditions including operator attended working station and fully automated marking centres.

AREX implements advanced embedded digital platform for complete marking system control and diagnostics. AREX is equipped with 4 independent axys controls (X,Y,Z, Rotative axys) to implement Multi-Layers and Rotating Marking and to change marking head position. Dedicated encoder input is applied for Marking On Fly even in accelerated and un-constant speed conditions. Low Power consumption and Excellent power efficiency are classified at top in its category.



LASER MARKING

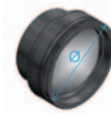
FEATURES & BENEFITS

- Ultra compact marking head
- Low Power Consumption
- High quality marking and precision
- New embedded platform
- Ease of use with lighter software platform
- Dedicated encoder for Marking On Fly

AREX

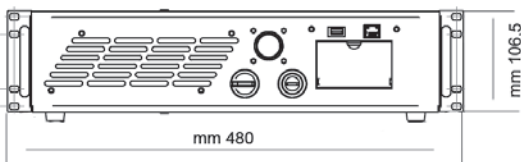
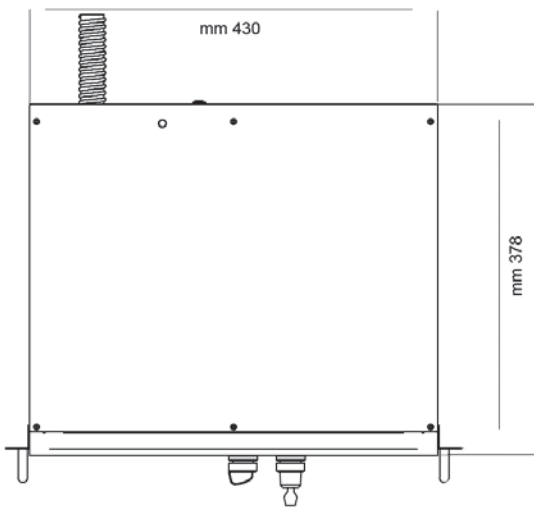
	AREX 10W	AREX 20W
Nominal power	10W	20W
Leakage	< 50 mW	< 80 mW
Pulse energy (max)	500 µJ	1000 µJ
Peak power (max)	5 kW	10 kW
Head cable Length	3 m standard	
Wavelength	1060 – 1080 nm	
Laser source	Solid State Fiber Laser	
Emission radiation	Pulsed	
Wavelength	1060 – 1080 nm	
Modulation	10 kHz ÷ 100 kHz	
Pulsewidth	100 nsec	
Aiming Beam	1 mW @ 635 nm	
Temperature Range	Operative 10°C to 35°C Storing 0°C to 50°C	
Cooling	Air cooled	
Resonator Dimension & Weight	mm 90x112x298	kg 4
Rack Dimension & Weight	mm 106x430x370	kg 11
Standard Marking configuration	F-Theta 160S - 3m head cable	

Objective F-Theta mm	63S	100S	160S	254S	100L	160L	254L	330L
Working distance mm	72	113	177	280	97	175	297	387
Working area (mm x mm)	35X35	50X50	100X100	140X140	60X60	110X110	180X180	220X220

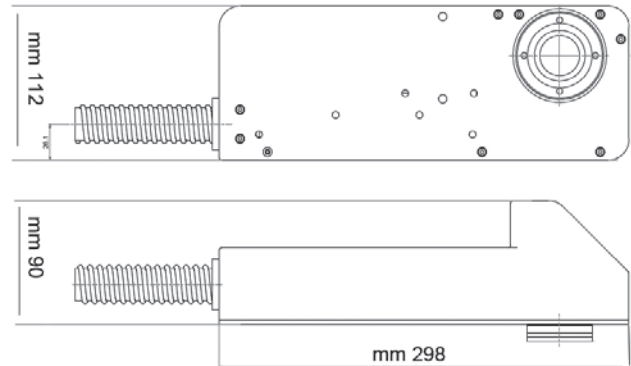


S (small) > Ø = 47mm
L (large) > Ø = 90mm

CONTROL UNIT (RACK)

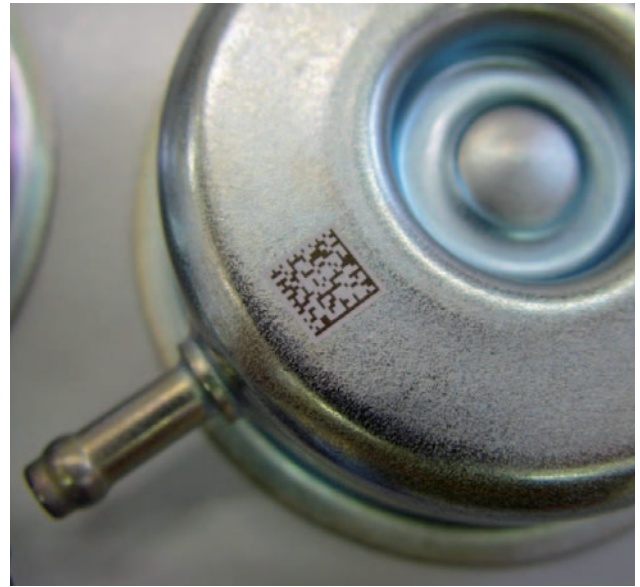


RESONATOR



This product has been developed to satisfy to requirements of the following reference applications:

- Excellent contrast on metal surfaces
- Optimum for plastic and electronic PCB



MARKING KIT

The marking kit allows system integrators to easily interact with the laser marking system. The kit consists of two components: a PCI electronic board (iMarkPCI) that provides control signals to the laser and a powerful software (Lighter) that provides a graphical user interface to create marking layouts and automate the laser marking process through integration with legacy systems. The Lighter graphical editor creates and edits text strings, shapes, barcodes (e.g. 128, EAN/UPC, 2/5, 3/9, GS1-128, RSS) and matrix codes (Datamatrix, QR codes, micro QR codes). It can also import logos in vectorial and raster formats.

Lighter marking kit guarantees key advances in marking software functions and applications such as marking on fly, array marking, grey tones marking, mechanical axis control, rotating axis control and others. Lighter is scriptable: this means that it can be easily integrated with legacy systems through a wide range of combinations of transmission media, protocols and architectures (master/slave, client/server, ...). Lighter is extensible: its scripting features can be extended through custom-developed plug-ins to deal with specific integration-related issues (custom components or protocols, patent protected algorithms, etc.).



TECHNICAL SPECIFICATIONS IMARK MARKING KIT

User interface	Languages	English, Italian, German, Spanish, French, Polish, Japanese, Traditional Chinese, Simplified Chinese, Korean
PC compatibility	Supported OS	Windows 7 / Vista / XP
	Board slot	PCI Express (1x)
Galvo performance	Repeatability	< 10um short term positioning accuracy
	Precision	< 50um galvo positioning precision
	Long term drift	< 100um long term positioning drift
	Speed	Up to 10.000 mm/s
Character type	Font	Original single line, True Type, Open Type, Type1, Type42
	Languages	European, Asian, Arabic, Cyrillic and Hindi languages supported
	Text type	Fixed text, date and time, serial number, batch code, fully customizable code
Code type	Barcode	2to5, Code39, Code128, UPC, EAN (GS1 ready)
	Stacked	PDF417, Code16K, RSS Family
	Matrixcode	Datamatrix, QRcode, microQR
Logo image	Types	HPGL, PLT, DXF, DWG, BMP, JPG, TIF, GIF, PNG
Integration	Marking capabilities	Standing, Rotary axis, On the fly (marking in motion)
	Mechanical Axis	Up to 4 mechanical axis driving capabilities (stepper motor)
	I/O	Up to 16 digital inputs and 16 digital output fully programmable
	Encoder	Dual line high resolution encoder input (on the fly option)

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All laser sources described in this product guide are Class 4 laser sources. Laser interaction with organic or inorganic material can cause TOXIC FUMES/PARTICLES. The OEM laser components described in this product guide is for sale solely to qualified manufacturers, who shall provide interlocks, indicators and other appropriate safety features in full compliance with applicable national and local regulations.