

Product Update

AREX₄₀₁

ALL THE POWER YOU NEED!



OVERVIEW

Datalogic is pleased to announce that a new product is joining the AREX400 family of High Performance fiber laser markers: the AREX401.

AREX401, in the same compact, rugged, and lightweight scan-head design, now delivers an incredible average power of 100W expanding by far the marking capabilities on automotive and aerospace components in terms of marking speed and engraving depth, to ensure reliable traceability on components that are exposed to high stress or wear in harsh environments or that are subject to aggressive post processing and finishing.

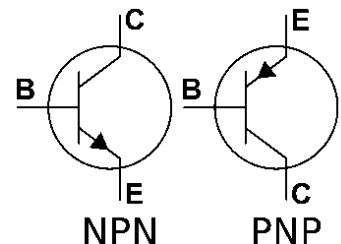
ENHANCED FEATURES

High Performance f-theta lenses

Two new f-theta lenses have been specifically developed for the new AREX401, the new F=160 M60 and the new F=254 M60. These new, compact, and performing medium-sized f-theta lenses provide low optical losses, high resolution, wide marking areas with full protection from dust, oil, and water.

In addition, a field replaceable, protective glass guarantee provides quick and easy cleaning with no production stops, ensuring high protection and a long lifetime of these sophisticated and performing components.

The new M60 f-theta lenses do not need a mounting adapter.



Product Update

Simplified Integration

AREX401 now offers an improved Digital IO interface, totally backwards compatible, that simplify integration into automatic production line and PLC controlled environments.

Historically, PNP outputs (sinking 24 VDC inputs) are generally more diffused in North America and Europe, whereas the NPN solution (sourcing 24 VDC inputs) is typically more common in Asia. Most U.S. and EU technicians often find PNP sensors easier to understand because the device produces a high-level voltage signal when the output is active. Most of the time integrators need to be ready to support both topologies withing the same automation architecture.

To better match PLCs input configuration, speeding up wiring and connections, AREX401 Digital Outputs are now **configurable NPN or PNP**.

Enhanced Safe Laser Off (eSLO)

The new AREX401 now embeds a TÜV certified, improved version of Datalogic's Safe Laser Off (SLO) circuit, that is now fully electronic, faster, and non-wearing and easier to integrate.

The new SLO version now allows faster switching time (complete cycle ON→OFF→ON in 0.6 seconds) and ensures virtually an **unlimited number of operations** for the entire lifetime of the system.

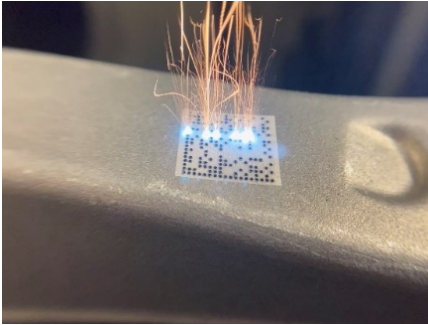
A safety circuit based on electro-mechanical devices offers a limited number of operations, that depending on the real production run, may limit the achievement of higher safety Performance Levels and may need periodic replacement or refurbishment.

The AREX401's enhanced Safe Laser Off (eSLO) circuit is completely solid state, without parts subject to wear, and offers unmatched performances in terms of reliability (PFHd Probability of Dangerous Failure). Even in the most demanding applications with the highest production rate and number of commutations, the reliability of the new eSLO greatly exceeds the entire machine Mission Time (20 years).



Product Update

GOING DEEPER, FASTER



The 100W fiber laser source allows users to unleash the performance of the AREX400 family, in terms of high-speed marking, up to 620 CPS (characters per second) with high quality, and in terms of deep engraving with a capability of removing up to of 200 mm of aluminum per minute (MRR: Material Removal Rate).

All the time a traceability code needs to survive a high level of abrasion, wear or stress, laser deep engraving is the solution to guarantee robust traceability.

AREX401 has been specifically developed to provide clear and durable deep markings that ensure perfect readability even in the toughest conditions without compromising process time.

RELIABLE SOLUTION FOR MARKING BEFORE POST-TREATMENTS

Several components and parts used in the manufacturing industry are subjected to severe stress, wear and exposed to adverse environmental conditions and corrosion.

The Automotive industry, in order to achieve better wear and corrosion resistance together with a good appearance, relies more and more on the e-coating process, like Cataphoresis Black Epoxy (KTL), to ensure long-term integrity of the vehicle structure. These important protective coatings may interfere with the need of extended traceability along the entire production line, from the forgery to the final test and delivery of the parts.

The new AREX401 provides an effective and efficient solution to create engraved or embossed marks that maintain high contrast and readability even after post-process like powder coating, e-coating or galvanizing treatments, without compromising the performances of the protective coating and the need of a complete traceability process.



AREX400, THE COMPLETE FAMILY

With the new AREX401, the AREX400 family is today one the most complete family of industrial fiber laser markers on the market covering any application from 10W to 100W, completely maintenance free.

AREX401: FASTER DEEPER, BETTER!

Available on JANUARY 10, 2022

Product Update

FOR MORE INFORMATION

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