

Aristo[®] Retrofit I/O Universal 255

Retrofit I/O Interfaces for implementation of the Aristo[®] robot package components on existing robots

Development within the field of robotic welding equipment moves rapidly. New materials and processes are constantly being introduced and all demand new functionalities and programs to meet their performance needs. By upgrading your robot installation with new welding equipment you can substantially increase productivity.

Technology

Based on the Aristo[®] Mig 5000i CAN-Bus controlled power source ESAB has a standard modular solution for upgrading your welding equipment. This modular solution is a complete system that can be mounted on robot installations or used for other mechanised solutions.

To comply with the high demands of wire-feeding in robotic environments, ESAB has developed the enclosed feeder Aristo[®] RoboFeed 3004w. This unit complies with specific robotic needs and includes functions like communication of the anti-collision signal, push buttons for gas test and manual wire inching, retract wire, remote possibility, gas monitoring, spatter cleaning functionality etc.

The Aristo[®] U8₂ Plus I/O operator pendant ensures a sophisticated man – machine communication and gives quick and easy access to all relevant parameters and synergic lines. A number of remote configurations and soft buttons make it easy for the integrator and the operator to get access to a range of new useful features such as QSet[™], release pulse, measuring limits, Touch Sense etc.

To achieve maximum accuracy and repeatability of weld parameters this new version supports schedules only. All 255 welding schedules stored in the U8₂ can now be addressed.

ESAB provides several robot package solutions ranging from the simple and low cost up to high tech, with offerings for both analogue or digital communication with external systems.



- New materials require modern welding processes and functionalities all of which are included in today's equipment
- Easier programming and increased capacity to store welding parameters enables fast settings
- Ensured availability of spare and wear parts
- The introduction of ESAB Marathon Pac[™] and Endless Pac[™] welding consumables



Components of the Aristo® Retrofit robot package

Aristo® Mig 5000i(w) ①

Aristo® Mig 5000i(w) is an ideal partner when it comes to efficient production or prefabrication of high alloyed materials with a very high demand on the welding performance. The power source is based on inverter IGBT technology that provides reliable equipment with outstanding welding characteristics.

Typical application areas are robotic welding, advanced mild and stainless steel fabrication, advanced aluminum fabrication, shipbuilding, yellow goods etc. This 400 Amp 100% power source is available with or without ESAB LogicPump. The patented ESAB LogicPump, ELP automatically starts the cooling water pump in the machine when a water cooled torch is connected to the wire feeder.

Aristo® Retrofit I/O Universal 255 ②

This interface is the connection between the ESAB equipment and the various available robot controllers. It fits onto the Aristo® Mig 5000i(w) power source.

Retrofit I/O Universal 255 comes standard with a module that allows to recall 255 weld data sets stored in the ESAB U8₂ pendant. By supporting schedules only we make sure that you always get the best performance of your ESAB equipment.

Aristo® U8₂ Plus I/O ③

Light, easy to use and very robust, it is the ultimate man-machine communicator for advanced applications. It is the standard operational pendant for Aristo® robot packages, and gives quick and easy access to a full range of synergic lines (all materials), advanced processes (QSet™, SuperPulse™, SAT™ etc.) and a range of new useful features as there are release pulse, touch sense, measuring limits etc.

Aristo® RoboFeed 3004w ELP 12p ⑤

Aristo® RoboFeed 3004w ELP 12p is a completely enclosed wire feeding unit which includes the drive control system and the operational functions including gas purge and wire inching, forward and reverse. A sturdy design with aluminium casing for reduced weight (7,3 kg) and ideal for use in tough environments. The digitally controlled feed unit performs accurate speed control with the aid of a pulse encoder on speeds ranging from 0.8 to 30.0 m/min. This wire feeder was specially developed to cope with the demands on ESAB's SuperPulse™ and SAT™ processes. Typical robot functions like ESAB LogicPump, touch sense (gas cup search), anti collision signal transportation etc are standard.

Cable package, power source - feeder unit ④

These cable packages are available as standard in lengths from 5 up to 35 m and are a direct fit to the wire feeder and the power source.

Connection cable, Aristo® Retrofit I/O Universal 255 to robot cabinet ⑦

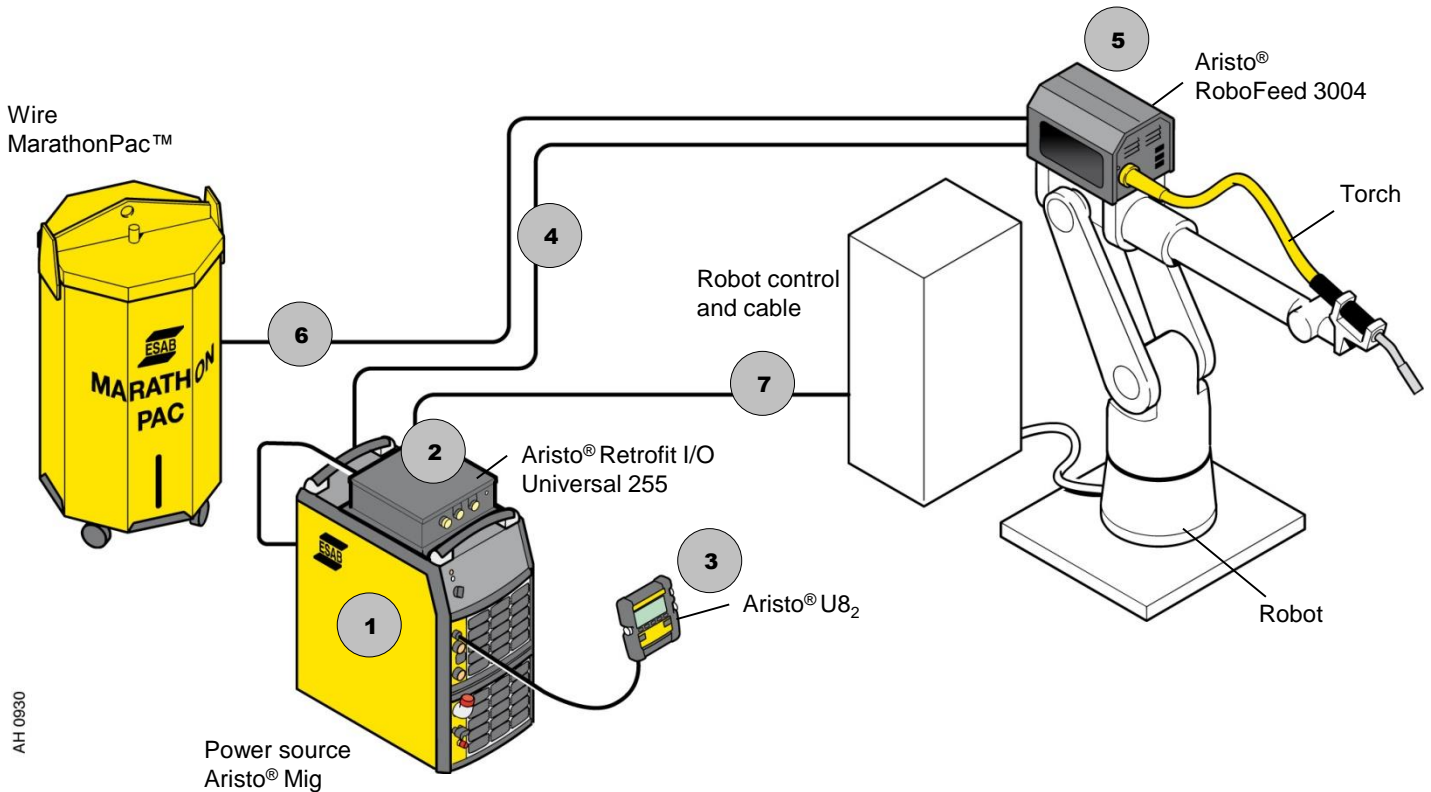
When using the Aristo® Retrofit I/O Universal 255 interface we have a standard connection cable available of 7,5 m long, one side is already connected into a Burndy connector that will fit onto the Aristo® Retrofit I/O Universal 255, the other side is loose wires. To connect these wires into the robot controller please contact the robot integrator or trained personnel.

Robotic welding torch

ESAB has a full range of robotic torches, to find the correct torch for your robot, please check the appropriate fact sheet or contact your local ESAB representative.

Aristo® Retrofit I/O Universal

Aristo® robot package with RoboFeed 3004w ELP, 12p



Ordering information

<p>1 Power sources:</p> <p>Aristo® Mig 5000i, 400 V 0459 230 880</p> <p>Aristo® Mig 5000iw, 400 V 0459 230 881</p> <p>Aristo® Mig 5000iw, 400 V incl flow guard 0459 230 896</p> <p>Water flow guard Aristo® Mig 5000i 0456 855 880</p> <p>Trolley Aristo® Mig 5000i 0461 043 880</p> <p>Anti return valve 0461 203 880</p>	<p>5 Feeder unit *</p> <p>Aristo® RoboFeed 3004w ELP 12p 0461 000 891</p> <p>* incl. quick connector MarathonPac™</p> <p>Assembly bracket</p> <p>Assembly bracket universal 0461 173 880</p>																		
<p>2 Aristo® Retrofit I/O Universal 255 0461 090 884*</p> <p>*The unit include the control cable for connection to the power source</p>	<p>6 Wire Conduits</p> <p>Wire conduit 1.8 M F102 437 881</p> <p>Wire conduit 3.0 M F102 437 882</p> <p>Wire conduit 3.8 M F102 437 889</p> <p>Wire conduit 4.5 M F102 437 883</p> <p>Wire conduit 6.0 M F102 437 887</p> <p>Wire conduit 6.5 M F102 437 890</p> <p>Wire conduit 8.0 M F102 437 884</p> <p>Wire conduit 12.0 M F102 437 885</p>																		
<p>3 Aristo® U8₂ Plus I/O 255* 0460 820 883</p> <p>Extension cable 7.5 m 0460 877 891</p> <p>* Aristo® U8₂ Plus I/O is delivered with a short connection cable and holder</p>	<p>7 Connection cable, Aristo® Retrofit to robot cabinet:</p> <p>7,5 m 0461 321 880**</p> <p>**Contact the robot integrator for internal robot connections</p> <p>* For other feeder alternatives, see the Aristo® robot package sales brochure.</p>																		
<p>4 Cable package, power source - feeder unit</p> <table border="0" style="width: 100%;"> <thead> <tr> <th></th> <th style="text-align: center;"><i>Air-cooled</i></th> <th style="text-align: center;"><i>Water-cooled</i></th> </tr> </thead> <tbody> <tr> <td>5.0 m</td> <td style="text-align: center;">0740 538 890</td> <td style="text-align: center;">0740 538 895</td> </tr> <tr> <td>10.0 m</td> <td style="text-align: center;">0740 538 881</td> <td style="text-align: center;">0740 538 886</td> </tr> <tr> <td>15.0 m</td> <td style="text-align: center;">0740 538 882</td> <td style="text-align: center;">0740 538 887</td> </tr> <tr> <td>25.0 m</td> <td></td> <td style="text-align: center;">0740 538 888</td> </tr> <tr> <td>35.0 m</td> <td></td> <td style="text-align: center;">0740 538 889</td> </tr> </tbody> </table>		<i>Air-cooled</i>	<i>Water-cooled</i>	5.0 m	0740 538 890	0740 538 895	10.0 m	0740 538 881	0740 538 886	15.0 m	0740 538 882	0740 538 887	25.0 m		0740 538 888	35.0 m		0740 538 889	
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Aristo® Retrofit I/O Universal is a direct fit* for e.g. :

ABB S4, S4C, S4C+
 Motoman ERC, MRC, XRC
 Kuka KRC1, KRC2
 Reis RS4, RS5
 Fanuc R-J2, R-J3 (always check I/O polarity)

For other robot controllers, please contact your ESAB representative.

(*as long as the robot controllers are fitted with a 24V DC I/O board and have sufficient I/O's free)

Quality accessories for the quality welder

ESAB offers a wide range of accessories. The complete range, along with product information, is available at our local web-sites, look at www.esab.com or contact your local ESAB dealer.

Unrivalled service and support

Our commitment and ability to deliver the expected service and support starts immediately after the order is confirmed. We endeavour to offer our customers an After Sales service, which is second to none. A strong and skilful service organisation is prepared to offer service and maintenance, calibration, validation and upgrading of equipment and software.

The service organisation will offer standardised solutions for the reconditioning or modification of existing products.

Spare and wear parts are manufactured according to ESAB's quality plan. Exchange Printed Circuit Board (PCB), exchange modules and components are available for all our products in order to reduce downtime to an absolute minimum. ESAB is continuously upgrading authorised service partners for local service support. Customers who have their own service and maintenance personnel will always be offered a service-training package as part of a total ESAB offering. However, product and process training for end-users will form an additional part of the ESAB offering. Always ask your ESAB sales representative or distributor for a complete ESAB solution.