Dual-Arm Robot

Suzhou GENE Automation Co., Ltd.

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I About GENE Automation

Suzhou GENE Automation is the national High-tech enterprise, focusing on industry robot R &D, robotic application station integration. Dr. Zhongxue Gan and Dr. Yonglin Chi -the first national Thousands Overseas Elites, the national distinguished special experts of robotic system lead GENE to international robot control level.

Exceeding 60 robot engineers with 5-year to 10-year experiences in ABB /KUKA /Yasakawa robot automation R &D departments or applications dept.

Main products contain: Fiber laser cutting robotic cell, Arc /MIG /TIG welding robot station, cobot (7-axis collaborative robot), fully automatic laser welding stations, customized CNC robot cells, smart factory etc.

Core robot application Industries: Automobiles, household field, fitness industry, electronics, energy industry, military projects, medical industry and others with automatic inspection, automatic test, automatic assembly line and smart factory.

To provide swift responds to each client, Suzhou GENE acts as robot system integrator and service center, and Shanghai GENE acts as R&D /technical support center.

GENE team in China: Shanghai, Suzhou, Beijing, Shenzhen, Wuhan and Dongguan are ready for services.
GENE distributor in Malaysia, Philippines, New Zealand and Turkey are ready for your services.
GENE welcomes and expects you to be our distributors for the area.

Memorabilia

--In 2017, new collaborative dual-arm robots are launched with patented robot control system.
--In 2017, GENE and KAWASAKI built a NEW robot factory of GENE controller and KAWAKASI robot. And appoint GENE as the sole distributor in whole China.
--In 2017, the first MES system for KFMI (electronics).
--In Jan of 2018, GENE robot controller gets China National R&D plan first award for its patented top-robot controller, which could be used in cutting, welding, CNC robot systems and MES. Competitors includes: SIASUN, DJI, STEP and other top-ranking firms in China.
--In 2018, the USD 153 million contract of robot systems between XINGDA and GENE.
--In GENE centers /Distributors in Malaysia, New Zealand, Turkey and Philippines are ready for services.
Suzhou GENE Automation Co., Ltd.
- manufacturer, sales and service center

Shanghai GENE Technology Co., Ltd.
- R&D center of Suzhou GENE

Site View:
GENE Patents (more in applying)

Our Partners
II Dual-arm 7-DOF cooperative robot

The robotic arm is the latest 7-axis robot from GENE, which is different from the traditional six-axis industrial robot. The robot is a 7-DOF redundant robotic arm with anthropomorphic design and implements drag and drop teaching. The function of collision detection can also be integrated with various sensors such as vision and force sensors to form a real-time closed-loop system. It is a high-precision small robot that can be applied in many fields.

The robot is widely used in electronics, food and beverage, machinery, pharmaceuticals, medical treatment, research and other fields. The robot is flexible, compact, lightweight, and redundant. Its repeatable positioning accuracy and path accuracy are suitable for material handling and assembly. Plastic and other applications.

Features:

All autonomous design
GENE has the dual-arm robot's core robot controller, hollow integrated motor, and servo as own patented products.

Lightweight design
The robot has a compact design and a lightweight design. The weight of the single robot arm is 18KG, the arm diameter is less than 95mm, and the arm joint is less than 175mm, which facilitates installation and reduces the space occupied by the installation.

7 Axis design
Different from the conventional 6-axis traditional industrial robot, the arms of GENE robot have 7 degrees of freedom, and the redundant design enables the robot to work in a complicated environment.

Modular design
Each joint adopts a hollow modular joint, which makes the robot's joints more compact. The hollow joints facilitate the robot's alignment, making the robot easier to assemble and maintain.

Dual Arms Cooperation
The outstanding advantage of two-arms 7 DOF robots is its flexible collaborative work for space, gestures and collaboration methods. It could make multi-objective optimization based on optimal collaboration, best sport performance, minimum energy consumption in selected workspace.
Smart feedback closed loop
Sensor information such as machine vision and force sensing is directly compensated to real-time motion control to realize intelligent closed-loop control of the end of the tool, which can realize complex applications that cannot be realized by traditional industrial robots, and has powerful application interaction capabilities, forming people and machines, Multiple coordination capabilities between environments.

220V AC and 48V DC Dual Supply System
Can not only 220V AC power supply, but also 48V DC power supply, robot applications more flexible, can be directly applied to the mobile platform.

*If system protection hood and dust collecting device should be prepared before usage.

III Robot Technical Specification

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Range</td>
<td>590 mm</td>
</tr>
<tr>
<td>Loading Weight</td>
<td>3 kgs</td>
</tr>
<tr>
<td>Repeating Position Accuracy</td>
<td>0.03 mm</td>
</tr>
<tr>
<td>Arm Length</td>
<td>945 mm</td>
</tr>
<tr>
<td>TCP max speed</td>
<td>2 m/s</td>
</tr>
<tr>
<td>TCP max Acceleration</td>
<td>20 m/s2</td>
</tr>
<tr>
<td>Axis 1</td>
<td>Working Area +180°~ -180°, Speed 180°/s</td>
</tr>
<tr>
<td>Axis 2</td>
<td>+120°~ -120° 180°/s</td>
</tr>
<tr>
<td>Axis 3</td>
<td>+180° ~ -180° 200°/s</td>
</tr>
<tr>
<td>Axis 4</td>
<td>+120°~ -120° 200°/s</td>
</tr>
<tr>
<td>Axis 5</td>
<td>+180°~ -180° 200°/s</td>
</tr>
<tr>
<td>Axis 6</td>
<td>+120°~ -120° 200°/s</td>
</tr>
<tr>
<td>Axis 7</td>
<td>+360°~ -360° 200°/s</td>
</tr>
<tr>
<td>Single Robot Arm Weight</td>
<td>20 Kgs</td>
</tr>
<tr>
<td>Working Temp.</td>
<td>0-40°C</td>
</tr>
<tr>
<td>Rated Power</td>
<td>1600 W</td>
</tr>
<tr>
<td>Power Supply</td>
<td>AC 220V, 50 /60Hz; DC 48V</td>
</tr>
<tr>
<td>IP Rating</td>
<td>IP30 [1]</td>
</tr>
<tr>
<td>Robot Installation</td>
<td>At any angle</td>
</tr>
<tr>
<td>Material</td>
<td>Aluminum Alloy</td>
</tr>
</tbody>
</table>

[1] IP30: Protected against solid objects over 2.5mm e.g. wire, small tools; no liquid protection.
IV Quotation and Delivery

4.1 The system includes following parts:

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 DOF arms</td>
<td>1 set</td>
<td></td>
</tr>
<tr>
<td>Teach Pendant</td>
<td>1 piece</td>
<td></td>
</tr>
<tr>
<td>Control Cabinet</td>
<td>1 piece</td>
<td></td>
</tr>
<tr>
<td><strong>Accessories</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tool box</td>
<td>1 set</td>
<td></td>
</tr>
<tr>
<td>Installation Wires</td>
<td>1 set</td>
<td></td>
</tr>
</tbody>
</table>
4.2 FOB Shanghai price __________.
4.3 Payment term: 40% T/T as deposit and 60% T/T before shipment.
4.4 Lead time: 10-20 working days after deposit received.
4.5 Packed in standard plywood cases.

V System Working Requirement

5.1 System power supply:
Three-phase 380V ± 10% /50Hz /60A, below 4 Ω independent earthing.

5.2 Foundation:
Shock-proof ditch is necessary for vibration environment.

5.3 System Working Environment:
Temp 0-40°C
Relative humidity-≤70%

VI On-site Training & Warranty

6.1 On-site training
GENE provides 3-5 working days on-site system installation and training. Please do make sure the installation area was processed as required (detailed requirement for installation shall be sent before system arrival).
On-site training includes operation, daily maintenance, problem shooting, wearing parts replacement and others.

*GENE provides 3-5 working days free of charge as on-site training in buyer’s location. Buyer should be prepared for installation and bear the round-trip flights and local accommodation charges.

6.2 Warranty
GENE guarantees 1-year warranty for whole system (*Wearing parts are not included*). The warranty starts after on-site training. Any discrepancy caused by system quality shall be covered by GENE; other problem or discrepancy occurred due to improper operation, chemical corrosion, power surge, wear and tear or other force majeure should be borne by buyer, GENE will help solving problem at earliest time.

Response shall be taken within 2 hours (no later than 24 hours for time lag) form GENE for any problem or question aroused by buyer. Solutions should be provided within 48 hours which varies if parts replacement is needed.

For service when warranty expires, GENE service shall continue and collect repair cost only.

After-sales service mail: info@geneautomation.com
or please reach +86 158 9558 9913.