

# Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

<b>Manufacturer</b>	<b>Emerson Process Management- Valve Automation</b>
<b>Address</b>	19200 NW Freeway, Houston, TX, 77065, United States
<b>Place of Production</b>	Emerson Process Management (Tianjin) Valves Co., Ltd No 15, Xingwang Road, Wuqing Development Area, Tianjin, 301700 People's Republic of China
<b>Type</b>	Actuator  CBA 315, CBA415, CBA420, CBA520, CBA525 & CBA 725 (DA, -SR40, -SR-60, SR80 & -SR100) CBA 730, CBA830, CBA930 & CBA 1030 (DA, -SR40, -SR-60, SR80 & -SR100) CBB315, CBB415, CBB420, CBB520, CBB525, CBB725 (DA, -SR40, -SR-60, SR80 & -SR100)
<b>Description</b>	Quarter turn, scotch yoke, pneumatic actuators, double acting or spring return
<b>Trade Name</b>	CBA and CBB
<b>Application</b>	Fixed or mobile offshore use. To drive quarter turn valves to open or closed position using air in both directions ( double acting) or air in one direction ( spring return)
<b>Specified Standard</b>	Emerson Process Management Standard EOP 01 Rev 5 IEC60529 SI 1996 No. 825 SI 1996 No. 913 IP 66 & IP 67M
<b>Ratings</b>	Moment Arm (inches): 1.5, 2, 2.5 or 3 Operating pressure (psi) : 48 to 166 psi Torque- double acting (lb.in) 380 to 20846 Torque- spring return (lb.in) 148 to 22055
<b>Additional Tests</b>	Water ingress as per IP 66 & IP 67M

1330 Enclave Parkway, Houston, Texas, 77077,  
United States

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**Gopal Nair**

Americas Design Appraisal Manager to  
Lloyd's Register Quality Assurance Inc  
A member of the Lloyd's Register group

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## Other Conditions

1. For applications on ESD valves the following are the limitations:-
  - (i) The actuators are to be fire proofed to the same rating of the valves and are to be protected against explosion or impact.
  - (ii) The actuators are to be spring return self-closing type.
  - (iii) Suitable local controls are to be provided at the installation to release the pneumatic supply air inlet for local closing of the spring return actuators.
  - (iv) The manual overrides are not to be provided.
  - (v) The evaluation of the leakage rate of the valve is not part of the actuator approval and is to be verified by the owner/operator.
2. This type approval may contribute to the requirement of a Verification scheme established by a Duty Holder SI 1996 No. 825 and SI 1996 No. 913

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register Quality Assurance Inc of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document 93/60111(E6)-02 and its supplementary Type Approval Terms and Conditions form part of this Certificate.