

TYPE APPROVAL CERTIFICATE

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the DNV GL Type Approval System.

Certificate No. **61 071 - 13 HH**

Company **Exlar Corp.**

**18400 West 77th Street
Chanhassen MN 55317, UNITED STATES**

Product Description **Linear Actuators**

Type **GSM30-0302-XXX-EX4-238-XT, GSM20-0301-XXX-EX4-238-XT,
GSM20-0301-XXX-CA1-2A8-36-XT**

Environmental Category **D, EMC2**

Technical Data / **Linear Roller Screw Actuator with integral brushless servo motor**
Range of Application

**Actuator size (frame): GSM 20: 2 inch (60mm), GSM30: 3 inch (80mm)
Stroke length: 3 inch (75mm)
Lead: GSM20: 0.1 inch (2.54mm), GSM30: 0.2in (5.08mm)
Degree of protection: IP54
Lead accuracy 0.025mm/300mm
Continuous force (GSM30): 3219N
Insulation class 180 (H)
Feedback types: Resolver (Part 63246, 63247); Encoder (Part 62888).
Operating voltages: 230VAC (Part 63246, 63247); 24VDC (Part 62888).
Fail safe function (GSM30 only): Spring return to dedicated position.
Versions with attached cables: Flame retardant and halogen-free cables SABIX
BL412 C FRNC, SABIX BL445 C FRNC TP and shrink hoses to be used as
specified.**

Remarks:

**-Check of suitability for the respective application subject to supplementary approval.
-Grounding requirements for the 62888 part number only: The end use drive must provide a ground for the cable shields and connectors.**

Test Standard **GL Guidelines for the Performance of Type Approvals, Chapter 2- Test Requirements for Electrical / Electronic Equipment and Systems (VI-7-2), Edition 2012**

Documents **Test report : Environ 47761-3, Environ 47761-4, Environ 47761-5, Environ 47761-6, Environ 47761-8, Environ 47761-14.
Element Materials Technology Minneapolis LLC Engineering Reports: 52270-1, Rev.1; 52270-5, -8; 52270-2, Rev.1; 52270-4, -7; 52270-3, Rev.1; 52230-1; 52230-2; 52230-3; 52230-4; 52230-5.
Drawings: GSM20: 63246, Rev. C, 62888, Rev. D; GSM30: 63247 Rev. C.
Exlar Actuator Product Summary for DNV-GL Project.**

Remarks **See above. Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**

Valid until **2020-08-27**

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File No. **I.C.01**

Hamburg, 2015-12-01

Type Approval Symbol



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