DNV·GL

Certificate No:
TAA0000086

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Programmable Electronic System

with type designation(s)
MVI56 Series Communication Modules

Issued to
ProSoft Technology Inc.
Bakersfield, CA, United States

is found to comply with
DNV GL rules for classification – Ships and offshore units

Application :

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

Location classes:

Temperature	**D**
Humidity	**B**
Vibration	**A**
EMC	**A***
Enclosure	**Required protection according to the Rules shall be provided upon installation on board**

*** Equipment must be installed in a metallic enclosure**

This Certificate is valid until **2017-12-31**.
Issued at **Høvik** on **2016-02-05**

DNV GL local station: **Long Beach**

Approval Engineer: **Nils Jarem**

for **DNV GL**
Digitally Signed By: Sneen, Ståle
Location: DNV GL Høvik, Norway
Signing Date: 2016-02-09, on behalf of

Odd Magne Nesvåg
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Job Id: **262.1-008363-3**
Certificate No: **TAA0000086**

Product description

ProSoft MVI56-Series Communication Modules for Rockwell CompactLogix platform (1756) as listed below:

Product	Module/Unit Description
MVI56-ADM	'C' programmable application development module
MVI56-ADMNET	'C' programmable application development module with Ethernet port
MVI56-GSC	Generic ASCII serial Module
MVI56-MBP	Modbus Plus Communication Module
MVI56-MCM	Modbus Master/Slave Communication Module
MVI56-MNET	Modbus TCP/IP Communication Module
MVI56-PDPMV1	Profibus DPV1 Master Communication Module
MVI56-PDPS	Profibus DP Slave Communication Module
ProSoft MVI56E-Series Communication Modules :	
MVI56E-FLN	FA Control Network Enhanced Communication Module
MVI56E-GSC	Generic ASCII Serial Enhanced Communication Module
MVI56E-GSCXT	Generic ASCII Serial Enhanced Communication Module
MVI56E-MCMR	Modbus Master/Slave Communication Module
MVI56E-MCMXT	Modbus Master/Slave Communication Module
MVI56E-MNETXT	Modbus TCP/IP Client/Server Enhanced Communication Module for ControlLogix®
MVI56E-MNETC	Modbus TCP/IP Multi Client Enhanced Communications Module
MVI56E-MNETCR	Modbus TCP/IP Multi Client Enhanced Communication Module for Remote Chassis
MVI56E-MNETR	Modbus TCP/IP Client/Server Enhanced Communication Module with Reduced Data Block
MVI56E-DNPNET	DNP3 Ethernet Communication Module for ControlLogix®
MVI56E-61850S	IEC 61850 Server Communication Module for ControlLogix®.
MVI56E-LDM	Linux Development Module
MVI56E-SIE	Siemens Industrial Ethernet Communication Module for ContolLogix®
MVI56E-MCM	Modbus Master/Slave Enhanced Network Interface Module for ControlLogix®
MVI56E-MNET	Modbus TCP/IP Client/Server Enhanced Network Interface Module for ControlLogix®

Place of manufacture

OnLine Development Inc. "OLDI"
7209 Chapman Hiway
Knoxville, TN 37920

ProSoft Technology/ General Microcircuits Inc,
1133 N. Main St.
Moorsville , NC

Application/Limitation

The type approval does not cover direct connection to the ship's power distribution board. The equipment is designed for use in Rockwell Programmable Electronic Systems and the approval is valid only when powered by a type approved 24V DC power supply.

The equipment must be installed inside a metallic enclosure to satisfy the radiated emission limits for the emergency band,
156 MHz – 165 MHz.

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification**/** Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Product certificate
If specified in the Rules, ref. Pt.4 Ch.9 Sec.1, the control and monitoring system in which the above listed hardware is used shall be delivered with a product certificate. For each such delivery the certification test is to be performed at the manufacturer of the application system before the system is shipped to the yard. The test shall be done according to an approved test program. After the certification the clause for application software control will be put into force.

Clause for application software control
All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to DNV GL for evaluation and approval. Major changes in the software are to be approved before being installed in the computer.

Type Approval documentation

Product	Data sheet date	User manual/guide date
MVI56-ADM	January 31, 2007	August 27, 2009
MVI56-ADMNET	January 30, 2008	August 05, 2009
MVI56-GSC	January 31, 2007	December 15, 2007
MVI56-MBP	February 13, 2008	July 23, 2008
MVI56-MCM	January 23, 2007	February 15, 2010
MVI56-MNET	January 31, 2007	December 08, 2009
MVI56-PDPMV1	March 05, 2008	March 25, 2011
MVI56-PDPS	January 22, 2007	April 22, 2008

Product	Data sheet date	User manual/guide date
MVI56E-SIE	2012-06-22	2012-09-06
MVI56E-MNET/MNETXT	2014-09-10	2012-09-12
MVI56E-MNETR	2010-11-29	2012-06-01
MVI56E-MNETC	2013-05-23	2011-12-02
MVI56E-MNETCR	2010-01-14	2011-06-14
MVI56E-MCMR	2009-03-04	2011-06-14
MVI56E-MCM/MCMXT	2014-05-14	2012-06-01
MVI56E-LDM	2015-04-29	2014-03-12
MVI56E-GSC/GSCXT	2016-01-29	2016-01-29
MVI56E-FLN	2010-10-14	2012-05-17
MVI56E-DNPNET	2013-02-07	2012-11-28
MVI56E-61850S	2014-09-04	2014-09-03

Reports
Stork Garwood EMI/EMC and Environmental test report no. ENV002301SC Rev.1, 115 V AC/60 Hz, dated January 15, 2010
Stork Garwood EMI/EMC and Environmental test report no. ENV002301SC Rev.3, 230 V AC/50 Hz, dated April 28, 2010
Northwest EMC test report no. PROS0045, dated December 29, 2009
NEMKO DNV Marine EMC & Power report 2015 09293709 EMC DNV R3, dated 2015-06-19

DNV Long Beach Initial survey report dated 2010-05-26.
Type approval periodical assessment report for A-11722, DNV GL Long Beach 2015-11-05.

Tests carried out
Applicable tests according to DNV Standard for Certification No. 2.4, April 2006.

Marking of product

Each product is marked with:
- Manufacturer name, "ProSoft"
- Product name as listed in the table under Product description
- Serial number

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:
- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE