



## Type Approval Certificate

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

This certificate is issued to:

<b>PRODUCER</b>	Online Development, Inc.
<b>PLACES OF PRODUCTION</b>	Online Development, Inc.      General Microcircuits, Inc. 7209 Chapman Highway,      1133 N. Main Street, Knoxville, TN 37920      Mooresville, NC 28115 USA      USA
<b>DESCRIPTION</b>	Industrial Communications Controllers
<b>TYPES</b>	ProSoft Technology Inc types: MVI56-ADM MVI56-GSC MVI56-MCM MVI56-MNET MVI56-ADMNET MVI56-MBP MVI56-PDPMV1 MVI56-PDPS MVI56E-GSC MVI56E-MCM MVI56E-MCMXT MVI56E-MNET MVI56E-MNETXT MVI56E-MNETR MVI69-ADM MVI69-GSC MVI69-MCM MVI69-MNET MVI69-ADMNET MVI69-PDPMV1

<b>Certificate No.</b>	10/60006
<b>Issue Date</b>	27 October 2010
<b>Expiry Date</b>	26 October 2015
<b>Sheet</b>	1 of 2

A.Munden



*Lloyd's Register North America, Inc.  
3050 Harvester Road, Suite 208, Burlington, Ontario, L7N 3J1, Canada*

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<b>APPLICATION</b>	For use in environmental categories ENV1 and ENV2 as defined in LR Test Specification No. 1: 2002.
<b>SPECIFIED STANDARDS</b>	Lloyd's Register Test Specification Number 1, 2002
<b>OTHER CONDITIONS</b>	Installation of this equipment for marine applications is to be in accordance with Part 6, Chapter 1 of the Rules and Regulations for the Classification of Ships.

*"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 of any modification or changes to the equipment in order to obtain a valid certificate."*

*The Design Appraisal Document No. 10/60006 and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

<b>Certificate No.</b>	10/60006
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# Marine Design Appraisal Document

Lloyd's Register North America, Inc.  
Toronto Design Support Office  
3050 Harvester Road, Suite 208  
Burlington  
Ontario, L7N 3J1  
Canada

Date  
27 October 2010

Quote this reference on all future communications  
TDSO/AM/W02458539

## LLOYD'S REGISTER TYPE APPROVAL SYSTEM 2002

Issued to: ONLINE DEVELOPMENT INC.

For: INDUSTRIAL COMMUNICATION CONTROLLERS

Types: PROSOFT TECHNOLOGY INC. TYPES

MVI56-ADM, MVI56-GSC, MVI56-MCM, MVI56-MNET, MVI56-ADMNET, MVI56-MBP, MVI56-PDPMV1, MVI56-PDPS,  
MVI56E-GSC, MVI56E-MCM, MVI56E-MCMXT, MVI56E-MNET, MVI56E-MNETXT, MVI56E-MNETR, MVI69-ADM,  
MVI69-GSC, MVI69-MCM, MVI69-MNET, MVI69-ADMNET AND MVI69-PDPMV1

TYPE APPROVAL CERTIFICATE NO: 10/60006

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval System, 2002 and this Design Appraisal Document forms part of the Certificate.

### APPROVAL DOCUMENTATION

Approval Services Request for Quotation form	19 February 2010
Inspection and Surveillance of Production Facilities Report (OLDI – Knoxville, TN) – NOS1000269	23 July 2010
Inspection and Surveillance of Production Facilities Report (GMI – Mooresville, NC) – NOS1000320	2/9/2010
ProSoft Technology letter re ProSoft factories	28 October 2009
ProSoft letter re Lloyd's Certification	13 January 2010
EMI/EMC Test Procedure for the MVI56/MVI56E/MVI69/PS69 Series Modules	4 November 2009
Environmental Test Procedure for the MVI56/MVI56E Series Modules	4 November 2009
Environmental Test Procedure for the MVI69/PS69 Series Modules	4 November 2009
MVI56-ADM Datasheet	31 January 2007
MVI56-GSC Datasheet	31 January 2007
MVI56-MCM Datasheet	23 January 2007
MVI56-MNET Datasheet	31 January 2007
MVI56-ADMNET Datasheet	31 January 2007
MVI56-MBP Datasheet	13 February 2008
MVI56-PDPMV1 Datasheet	5 March 2008
MVI56-PDPS Datasheet	22 January 2007
MVI56E-GSC Datasheet	18 September 2009
MVI56E-MCM Datasheet	4 March 2009
MVI56E-MCM & MVI56E-MCMXT Datasheet	30 April 2009
MVI56E-MNET & MVI56E-MNETXT Datasheet	2 July 2009
MVI56E-MNETR Datasheet	18 June 2009
MVI69-ADM Datasheet	16 May 2008
MVI69-GSC Datasheet	16 May 2008
MVI69-MCM Datasheet	16 May 2008

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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## Appendix

MVI69-MNET Datasheet 16 May 2008  
MVI69-ADMNET Datasheet 16 May 2008  
MVI69-PDPMV1 Datasheet 29 February 2008

### MVI56:

1301183\_assy\_bottom.pdf - PCB assembly drawing for MVI56 17 May 2006  
1301183\_assy\_top.pdf - PCB assembly drawing for MVI56 17 May 2006  
1301257\_assy\_top.pdf - PCB assembly drawing for Ethernet Daughterboard 18 September 2007  
mvi Enet pcb partslist.xls - Parts List for Ethernet Daughterboard PCB assembly -  
mvi Enet pcb schem.pdf - Schematic for Ethernet Daughterboard PCB assembly 19 July 2001  
mvi1756 pcb partslist.xls - Parts List for MVI56 PCB assembly -  
mvi1756 pcb schem.pdf - Schematic for MVI56 PCB assembly 12 March 2002  
mvi56 withEnet assembly drawing.pdf - MVI56 with Ethernet Mechanical Assembly 18 September 2001  
mvi56 withEnet assy partslist.xls - Parts List for MVI56 with Ethernet module -

### MVI56E:

1700258\_E2\_UL-NDA 20100420-1.pdf - Parts List -  
1301281-NDA 20100420-1.pdf - Schematic 8/3/2007  
Assy Drawing Bottom-NDA 20100420-1.pdf - PCB assembly drawing 29 February 2008  
Assy Drawing Top-NDA 20100420-1.pdf - PCB assembly drawing 29 February 2008

### MVI69:

1301016\_assy\_top.pdf - Parts Placement for MVI69 Ethernet PCB 18 December 2003  
1301271\_assy\_bottom.pdf - Bottom Parts Placement for MVI69 PCB 1/10/2008  
1301271\_assy\_top.pdf - Top Parts Placement for MVI69 PCB 1/10/2008  
mvi69 enet pcb PartsList.xls - Parts List for MVI69 Ethernet PCB -  
mvi69 enet pcb schem.pdf - Schematic for MVI69 Ethernet PCB 9 December 2003  
mvi69 pcb PartsList.xls - Parts List for MVI69 PCB -  
mvi69 pcb schem.pdf - Schematic for MVI69 PCB 10 January 2008  
mvi69 withEnet assembly drawing.pdf - Assembly drawing for MVI69 with Ethernet module 16 August 2006  
mvi69 withEnet PartsList.xls - Parts List for MVI69 with Ethernet module -

### ProSoft Daughterboards:

pro-mvi-pdps-1.2\_sch.pdf - Schematic for MVI-PDPS Profibus DP Slave 8 November 2004  
MVI-PDPS Rev 1.2 BOM.xls - MVI-PDPS Bill of Materials -  
sch-mvi-mbp-1.0.pdf - Schematic for MVI-MBP Communications (Dual Port) 11 May 2004  
MVI-MBP2 Rev 1.2 BOM.xls - MVI-MBP2 Bill of Materials -  
sch-pro-mvi56-dpv1-1.1.pdf - Schematic for MVI56 Profibus DPV1 Master 24 August 2004  
MVI56-DPV1 Rev 1.3 BOM.xls - MVI56-DPV1 Bill of Materials -  
pro-mvi69-dpv1-1.0\_sch.pdf - Schematic for MVI69 PROFIBUS DPV Master 21 July 2005  
MVI69-DPV1 Rev 1.1 BOM.XLS - MVI69-DPV1 Assembly Bill of Materials, Hardware & Overlay -

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## Appendix

### TEST REPORTS

PROS0045 Rev 1 – EMC Test Report for MVI56 Modules	4 May 2010
PROS0046 – EMC Test Report for MVI69 Modules	29 December 2009
ENV002301SC Rev 3 – EMI/EMC & Environmental Test Report	28 April 2010
PROS0064 Rev 1 – EMC Test Report for MVI69 Modules	28 April 2010
LR Witnessed Performance Test Report	03/08/10
TN001-09 ProSoft Technology Technical Note MVI56E-MCM Performance	03/10/09
TN04-MVI56MNET-10 ProSoft Technology Technical Note MVI56-MNET Standby Applications	10/08/10
TN05-MVI56MCM-10 ProSoft Technology Technical Note MVI56-MCM Module Standby Applications	10/12/10
TN05-MVI56PDPMV1-10 ProSoft Technology Technical Note MVI56-PDPMV1 Standby Application	10/14/10
TN05-MVI56MBP-10 ProSoft Technology Technical Note MVI56-MBP Standby Application	10/15/10

### Supplementary Type Approval Terms and Conditions

*Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.*

*Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.*

*Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.*

*Lloyd's Register North America, Inc. reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.*



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FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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**Part 3  
Control Units (Part 3)**

Producer/Licence No.	Item Description	Technical Details	Category/Additional Tests	Remarks	Cert. No.
<p>Online Development, Inc. 7209 Chapman Highway, Knoxville, TN 37920 United States of America (USA)</p>	<p>Industrial Communications Controllers</p> <p>ProSoft Technology Inc types:</p> <p>MVI56-ADM MVI56-GSC MVI56-MCM MVI56-MNET MVI56-ADMNET</p> <p>MVI56-MBP MVI56-PDPMV1 MVI56-PDPS MVI56E-GSC MVI56E-MCM MVI56E-MCMXT MVI56E-MNET</p> <p>MVI56E-MNETXT</p> <p>MVI56E-MNETR</p> <p>MVI69-ADM MVI69-GSC MVI69-MCM MVI69-MNET MVI69-ADMNET</p> <p>MVI69-PDPMV1</p>	<p>Application Development Module Generic ASCII Serial Interface Module Modbus Master/Slave Module Modbus TCP/IP Module Application Development Module with Ethernet Modbus Plus Module PROFIBUS DPV1 Master Module PROFIBUS DP Slave Module Generic ASCII Serial Enhanced Module Enhanced Modbus Master/Slave Module Enhanced Modbus Master/Slave Module Enhanced Modbus TCP/IP Client/Server Module Enhanced Modbus TCP/IP Client/Server Module Enhanced Modbus TCP/IP Client/Server Module Application Development Module Generic ASCII Serial Interface Module Modbus Master/Slave Module Modbus TCP/IP Module Application Development Module with Ethernet PROFIBUS DPV1 Master Module</p>	<p>ENV1 ENV2 (2002)</p>	<p>Expires: 26 October 2015</p>	<p>10/60006</p> 