0302 Réf: EIMXREV0

CE

166, avenue Jean Lagarrigue
Les Essarts B.P. 41 76530 GRAND COURONNE
Tél : 02 35 67 26 80 Fax : 02 35 67 01 64
E-mail : contact@smpr.com – Web : http://www.smpr.com
S.A.S. au capital de 1 015 200 Euros
R.C.S. Rouen 394 499 131 – APE 332B
SIRET 394 499 131 00032 – N° T.V.A. : FR 17 394 499 131

IMUX16MV2
MULTIPLEXERS
RS232 Version

OPERATING INSTRUCTIONS

READ THE SAFETY NOTICES IN APPENDIX C BEFORE USING.

WARNING

The information you will find in this document can be modified without notice.

The manufacturer allows no warranty of any kind including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

The manufacturer is responsible neither for mistakes which can appear in this handbook nor for direct or indirect damages arising from the equipment, the performances and the use of this material.

PRESENTATION

The multiplexer IMUX16MV2 processes the analog/digital conversion of half bridge inductive probes.

Measurements requests and results are drived by a central unit via an RS 232 serial linkage.

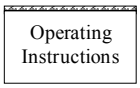
IMUX16SV2 extension boxes can be connected to an IMUX16MV2, via Mbus connector, so it is possible to connect up to 256 probes.

WHAT HAS BEEN SUPPLIED

IMUX16MV2

IMUX16MV2 

MAINS CABLE 

OPERATING INSTRUCTIONS 

CONTENTS

I. STARTING PROCEDURE

1. OPERATION

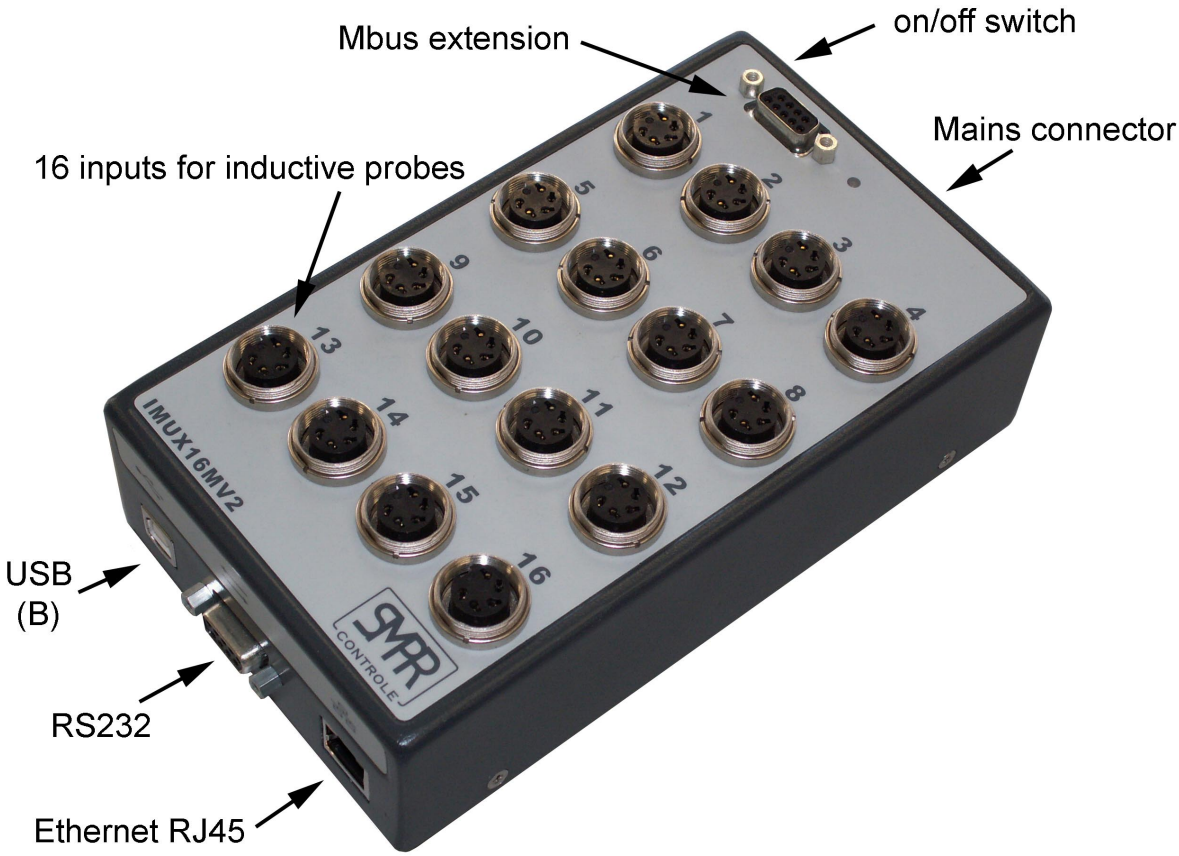
IMPORTANT:

Any connection or serial linkage must be effected mains cable not connected.

Use only shielded connection cables (see appendix C).

For safety reasons, the IMUX16MV2 mains cables are supplied with earth connections.
Always plug them into an earthed wall socket to avoid electrical risks.
You can also use a multisocket bar with a mains switch.
The connection must be linked to a single phase electric network shielded with a fuse on all conductors.

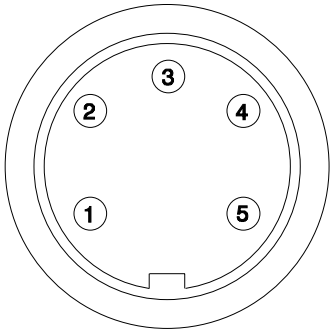
2. PANEL


Mbus extension
on/off switch
Mains connector
16 inputs for inductive probes
IMUX16MV2
USB
(B)
RS232
Ethernet RJ45
SMPR
CONTROLE

II. INPUTS - OUTPUTS

1. INDUCTIVE PROBES CONNECTIONS

DIN 45322 type connector - 5 female pins at 240° (screw locking)

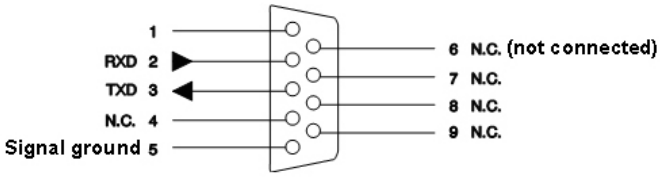


1 : Alim. (+)
2 : Earth
3 : Probe output
4 : N.C.
5 : Alim. (-)

CSxx and M8xx series inductive probes are compatible with the IMUX16MV2-CS multiplexer.
For reading or linearity problems with other compatible probes, CS-V-V adapters correcting this problem (calibration in our factory) must be used.
Mahr compatible TESA probes are compatible with the IMUX16MV2-MT multiplexer.
C3xx type RECTIFIL probes equipped with 5 pins connectors (bayonet locking) can be connected to the IMUX16MV2-CS via the CS-B-V adapter which corrects connection and linearity.

2. RS232 (OR RS485) SERIAL INTERFACE

9 female pins SUB D Connector



RS232 serial interface format (standard configuration when delivered)

Speed 9600 Bauds. 8 Data bits. No parity. 1 Stop bit.

3. CONFIGURATION

The configuration is possible via USB serial bus.
Configuration software on request.
The standard configuration is 9600 bauds, 8 data bits, no parity and 1 Stop bit.

4. PROTOCOLS

BINARY mode compatible with the RECTIFIL station (quickest mode)

Channel is addressed by one ASCII character between 0 and 63 only.
Mesurement is transmitted twice : LSB and MSB.
To get the MSB, one character the value of which is the channel number + 128, must be sent.
To get the LSB, one character the value of which is the channel number + 64, must be sent.
The MSB must be interrogated first.
For example : to read channel 1, you have to send the code 0 then the code 128 then the code 64.

III. TECHNICAL SPECIFICATIONS

IMUX16MV2

Dimensions L x D x H	190 x 105 x 55 mm
Weight	0.6 kg
Material	Painted aluminium
Operating temperature	+ 15 to + 40°C
Storage temperature	-30 to 70° C
Relative humidity (operational)	80%
Relative humidity (non operational)	80%
Protection	IP42
Inputs - Outputs	• RS 232 - 9 female pins or in option RS 485 - 9 female pins • 16 inputs for inductive probes • Mbus - 9 female pins - connectors for extension boxes • USB B connector • Ethernet RJ45
Power supply	230 V
Frequency	~ 50 Hz
Power consumption	12 VA maxi

IV. OPTIONS

- IMUX16MV2-CS : Multiplexer for SMPR CONTROLE CSxx probes.
- IMUX16SV2-CS : Extension for SMPR CONTROLE CSxx probes.
- IMUX16MV2-MT : Multiplexer for Mahr compatible TESA probes.
- IMUX16SV2-CS : Extension for Mahr compatible TESA probes.
- CS-B-V : Adapter for C3xx probes with a bayonet locking connector.
- CS-V-V : Adapter for probes which are compatible but with reading problems.
  (calibration in our factory must be effected)

APPENDIX A

CLEANING

Caution: Unit switched off. Mains cable disconnected.

Use a soft cotton cloth slightly soaked with an ethyl alcohol based product.
DO NOT USE the following products: acetone, benzene, toluene and halogens hydrocarbons.

APPENDIX B

ONE YEAR LIMITED WARRANTY ON IMUX16M AND IMUX16S PARTS

MANUFACTURERS RESPONSABILITY

IMUX16MV2 AND IMUX16SV2 - PRODUCTS HARDWARE AND LABOUR PARTS. For a period of one year from the effective warranty date, the manufacturer will pay for service labour and replacement parts. Replacement parts may be new or remanufactured at the option of the manufacturer and are warranted for the remaining portion of the original warranty period.

FIRST END-USER COVERAGE. This warranty applies only to the first end-user of the product and is not assignable to any other subsequent purchaser or user.

NOT COVERED. Any accessory or expansion item not included in the original factory packaging for the product is not covered.

Costs of installation or adjustment or damage resulting from causes beyond the control of the manufacturer, including acts of God, misuse, neglect, accident damage occuring in shipment or from improper installation, operation or application; or damage resulting from use of products, components, accessories or expansion items not supplied by the manufacturer are not covered. It also does not cover products which have been altered in any way without the written approval of the manufacturer including electrical or mechanical alteration, removal of serial numbers or the manufacturer trademarks or other identification.

THE SOLE REMEDY UNDER THIS WARRANTY SHALL BE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS AS PROVIDED ABOVE. UNDER NO CIRCUMSTANCES SHALL THE MANUFACTURER BE LIABLE IN ANY WAY TO THE USER FOR INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO, ANY LOSS OF DATA, BUSINESS OR PROFITS, WHETHER OR NOT FORESEEABLE AND WHETHER OR NOT BASED ON BREACH OF WARRANTY.

THE PRESENT WRITTEN WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ALL WARANTIES ARE EXPRESSLY EXCLUDED AND NEGATED.

OWNERS RESPONSIBILITY

OPERATING MANUAL AND OTHER DOCUMENTATION. Read your operating manual and other documentation carefully so that you will understand the operation of your products. It may be possible to avoid unnecessary service work which may not be covered by this warranty.

AFTER SALES SERVICE. If the product is defective, take it to an authorized dealer.

APPENDIX C

SAFETY NOTICES

Caution: To reduce the risk of electric shock which could cause personal injury, follow all safety notices. The symbols shown are used in your documentation and on your equipment to indicate safety hazards.

- The power supply cord is intended to serve as the disconnect device. The socket-outlet shall be near the IMUX16MV2 and IMUX16SV2 and shall be easily accessible.

- This equipment has a 3-wire grounded power cable. To prevent electrical hazards, do not remove the ground (earth) pin on the power cable. Replace the power cable if it is damaged. Contact your dealer for an exact replacement.

  In the USA and Canada, the power cord must be a UL-listed detachable power cord (in Canada, CSA certified), SV or SVT type, 18 AWG, 3 conductors, provided with a molded-on NEMA 5-15P type plug cap at one end and a molded-on cord connector body at the other end. The cord length must not exceed 15 feet (4,5 meters).

  Outside the USA and Canada, the plug must be rated for 250VAC, 10A minimum and must display an international agency approval marking. The cord must be suitable for use in the end-user country. Consult your dealer or the local electrical authorities if you are unsure of the type of power cord to use in your country.

CE: **This device meets the EN55022 class B, EN61000-4-2 (level 2), EN61000-4-4 (level 3), EN50140 (level 3), CEI and EN50141(level 3) electromagnetic compatibility standards.**

To preserve these conformities, the user must observe the following requirements:

- Use only shielded connection cables following the EMC rules to connect IMUX16M and IMUX16S multiplexers.

- The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.