INSTALLATION INSTRUCTIONS FOR THE

VMMI100 INPUT MINI-MODULE, **VMMC100**,
VMMC120 OUTPUT MINI-MODULES, **VMMIC100** AND
VMMIC120 INPUT / OUTPUT MINI-MODULES

KM518520

G212064, G212066
G212063, G212067
G212065

This manual is intended as a quick reference installation guide. Please refer to the manufacturer's control panel installation manual for detailed system information.

GENERAL DESCRIPTION

The Vega mini-module series is a family of microprocessor controlled interface devices permitting the monitoring and/or control of auxiliary devices. The Vega digital communication protocol utilised by the monitoring control panel provides for high rates of information exchange in combination with particular features that ensure fast and secure responses. A bi-colour LED indicator (red/green), one per single channel, is activated by the control panel. The mini-modules are powered by the loop.

SHORT CIRCUIT ISOLATORS

All Vega series mini-modules are provided with short-circuit monitoring isolators installed on the intelligent loop circuitry and can be activated by the control panel.

INSTALLATION

The Vega mini-modules must be used in combination with compatible control panels employing the Vega communication protocol for monitoring and control. The location of mini-modules should follow recognised national or international installation codes of practice. Connections to the terminals are polarity sensitive thus, please, check them by referring to the wiring diagrams and tables for each model. Mini-modules are provided with female terminal blocks, a 27 Kohm end of line resistor and a 10 Kohm alarm resistor, depending on the model.

COMMON TECHNICAL SPECIFICATIONS **

Loop's voltage range *	From 18 V (min) to 40 V (max)
Average current consumption	120 uA (@ 24 V)
LED's current consumption	6 mA (@ 24 V)
Operating temperature range	From -30 °C (min) to +70 °C (max)
Humidity	95% RH (no condensation)
Dimensions	75 x 52 x 28 mm (w/o brackets)
Weight	180 grams
Maximum wire gauge	2.5 mm^2

***Product operates down to 15 V, but without LED indication.**
****Check latest version of document TDS-VMXXX for further data, obtainable from your supplier.**

CAUTION

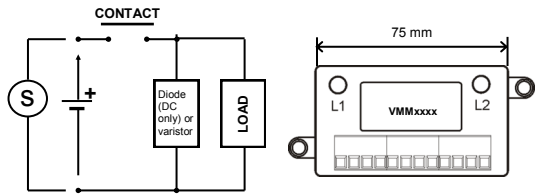
Disconnect loop power before installing the mini-modules.

CAUTION

Electrostatic Sensitive Device.
Observe precautions when handling and making connections.

WARNING

When switching an inductive load, in order to protect the mini-module from surges caused by counter-EMF, it is important to protect the relay contacts. A diode with a reverse breakdown voltage of at least ten times the circuit voltage (DC applications only) or a varistor (AC or DC applications) should be connected in parallel to the load.



SETTING THE ADDRESS

Mini-modules can be addressed by using a special hand-held programming unit or they can be auto-addressed by the control panel after they have been installed (the implementation of the auto-addressing feature depends on the control panel's manufacturer). Addresses may be selected over the range from 1 to 240, although, of course, each device on the loop must have a unique address.

- Connect the programmer to the module using the proper cable (refer to the programmer's instruction manual).
- After installing all modules and other loop devices, apply power to the loop in accordance with the panel's installation instructions.

NOTE: The VMMIC100 and VMMIC120 input/output mini-modules hold two addresses. The address assigned by the programmer always relates to the input channel; the output channel is automatically assigned the consecutive address.

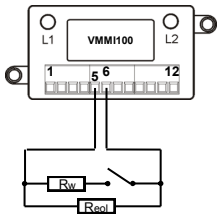
DEVICE'S MOUNTING

Mount securely within an electrical box or enclosure according to local electrical regulations.

MAINTENANCE

Test the mini-modules periodically according to local codes of practice. Those devices contain no serviceable part, so, should a fault develop, return them to your system supplier for exchange or disposal, according to warranty conditions.

INPUT mini-module

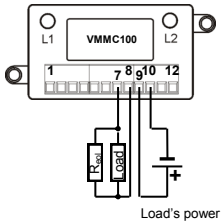


The **VMMI100** single channel supervised input mini-module provides monitoring of normally open contact fire alarm and supervisory devices.

End of line resistor (R_{eol}):27 Kohm.
Alarm resistor (R_w):10 Kohm.

	Terminal	Description
1	Loop line IN (+)	Loop positive input
2	Loop line OUT (+)	Loop positive output
3	Loop line IN (-)	Loop negative input
4	Loop line OUT (-)	Loop negative output
5	Input (+)	Supervised input (+)
6	Input (-)	Supervised input (-)
7	Not used	
8	Not used	
9	Not used	
10	Not used	
11	Not used	
12	Not used	

OUTPUT supervised mini-module



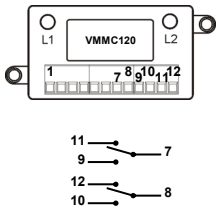
The **VMMC100** single channel supervised output mini-module provides control, by closing contacts, of auxiliary devices such as fire shutters.

End of line resistor (R_{eol}):27 Kohm.

Relay contact ratings are:
30 V_{dc}, 2 A or 30 V_{ac}, 2 A
(resistive load).

	Terminal	Description
1	Loop line IN (+)	Loop positive input
2	Loop line OUT (+)	Loop positive output
3	Loop line IN (-)	Loop negative input
4	Loop line OUT (-)	Loop negative output
5	Not used	
6	Not used	
7	Load (+)	Supervised output (+)
8	Load (-)	Supervised output (-)
9	Load power (+)	Load's power supply (+)
10	Load power (-)	Load's power supply (-)
11	Not used	
12	Not used	

OUTPUT relay mini-module



The **VMMC120** single channel relay output mini-module provides pole changeover contacts for the control of auxiliary devices such as fire shutters.

Relay contact ratings are:
30 V_{dc}, 2 A or 30 V_{ac}, 2 A
(resistive load).

	Terminal	Description
1	Loop line IN (+)	Loop positive input
2	Loop line OUT (+)	Loop positive output
3	Loop line IN (-)	Loop negative input
4	Loop line OUT (-)	Loop negative output
5	Not used	
6	Not used	
7	Common 1	Relay contact terminal
8	Common 2	Relay contact terminal
9	Normally open 1	Relay contact terminal
10	Normally open 2	Relay contact terminal
11	Normally closed 1	Relay contact terminal
12	Normally closed 2	Relay contact terminal

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WARNINGS AND LIMITATIONS

Our devices use high quality electronic components and plastic materials that are highly resistant to environmental deterioration. However, after 10 years of continuous operation, it is advisable to replace the devices in order to minimize the risk of reduced performance caused by external factors. Ensure that these mini-modules are only used with compatible control panels. Detection systems must be checked, serviced and maintained on a regular basis to confirm correct operation. Refer to and follow national codes of practice and other internationally recognized fire engineering standards. Appropriate risk assessment should be carried out initially to determine correct design criteria and updated periodically.

WARRANTY

All devices are supplied with the benefit of a limited 3 year warranty relating to faulty materials or manufacturing defects, effective from the production date indicated on each product. This warranty is invalidated by mechanical or electrical damage caused in the field by incorrect handling or usage. Product must be returned via your authorized supplier for repair or replacement together with full information on any problem identified. Full details on our warranty and products returns policy can be obtained upon request.

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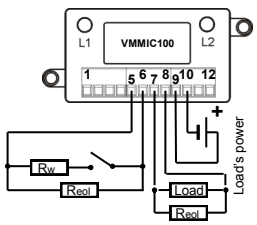
INPUT / OUTPUT supervised mini-module



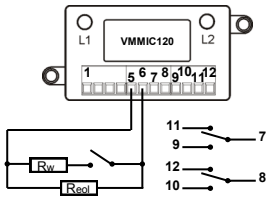
The **VMMIC100** input and output supervised mini-module combine in a single device supervised input and output characteristics.

End of line resistor (R_{eol}):27 Kohm.
Alarm resistor (R_w):10 Kohm.

Relay contact ratings are:
30 V_{dc}, 2 A or 30 V_{ac}, 2 A
(resistive load).

Terminal		Description
1	Loop line IN (+)	Loop positive input
2	Loop line OUT (+)	Loop positive output
3	Loop line IN (-)	Loop negative input
4	Loop line OUT (-)	Loop negative output
5	Input (+)	Supervised input (+)
6	Input (-)	Supervised input (-)
7	Load (+)	Supervised output (+)
8	Load (-)	Supervised output (-)
9	Load power (+)	Load's power supply (+)
10	Load power (-)	Load's power supply (-)
11	Not used	
12	Not used	

INPUT / OUTPUT relay mini-module



The **VMMIC120** input and output relay mini-module combine in a single device supervised input and relay output characteristics.

End of line resistor (R_{eol}):27 Kohm.
Alarm resistor (R_w):10 Kohm.

Relay contact ratings are:
30 V_{dc}, 2 A or 30 V_{ac}, 2 A
(resistive load).

Terminal		Description
1	Loop line IN (+)	Loop positive input
2	Loop line OUT (+)	Loop positive output
3	Loop line IN (-)	Loop negative input
4	Loop line OUT (-)	Loop negative output
5	Input (+)	Supervised input (+)
6	Input (-)	Supervised input (-)
7	Common 1	Relay contact terminal
8	Common 2	Relay contact terminal
9	Normally open 1	Relay contact terminal
10	Normally open 2	Relay contact terminal
11	Normally closed 1	Relay contact terminal
12	Normally closed 2	Relay contact terminal

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EN 54-17:2005 + AC:2007
EN 54-18:2005 + AC:2007

VMMI100
VMMC100
VMMC120
VMMIC100
VMMIC120

For use in compatible fire detection and alarm system