DATA SHEET

Vibro-Meter®

VM600 RLC16 relay card

KEY FEATURES AND BENEFITS

- From the Vibro-Meter® product line
- Relay card with screw-terminal connectors
- 16 relays with change-over contacts
- Relay driver inverter logic (jumper selectable)
- Low contact resistance
- Low capacitance
- High through power
- Live insertion and removal of cards (hot-swappable)
- Conforms to EC standards for EMC

APPLICATIONS

- Machinery protection

DESCRIPTION

The RLC16 relay card is designed for use in the VM600 series of machinery protection systems and condition and performance monitoring systems, from Meggitt's Vibro-Meter® product line. It is an optional card, for use when the four relays on the IOC4T input /output card are insufficient for the application and additional relays are required.

The RLC16 is installed in the rear of a VM600 rack (ABE04x or ABE056) and connects directly to the rack backplane via a single connector.

The RLC16 contains 16 relays with change-over contacts. Each relay is associated with 3 terminals on a screw-terminal connector accessible at the rear of the VM600 rack.

The relays are controlled by open-collector drivers under software control. Jumpers on the RLC16 card allow the selection of relay normally energized (NE) or normally de-energized (NDE).

For further information on the use of RLC16 cards in general, refer to the *VM600 machinery protection system (MPS) hardware manual* and the *VM600 MPSx software manuals*.

For specific applications, contact your local Meggitt representative.

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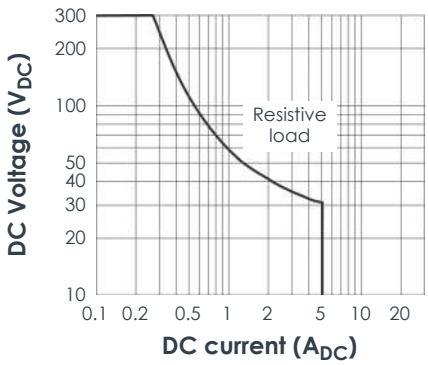
SPECIFICATIONS

Relay characteristics

Relay names	: RL1 to RL16
Type	: PE014005
Contact arrangement	: 1x COM, 1x NC and 1x NO contact/relay. All relay contacts are available on J1, J2 and J3.
Nominal rated voltage	: 250 V_{AC}
Nominal rated current	: 5 A_{AC}
Maximum breaking capacity (without contact protection)	: 1250 VA

Maximum DC load breaking capacity curve:



Operate / release / bounce time	: Typically 8 / 8 / 6 ms
Dielectric strength test voltages	
• Between open contacts	: 1000 V_{AC}
• Between contact and coil	: 4000 V_{AC}
Mechanical life	: 15 x 10^6 operations
Electrical life	: >10^5 operations

⚠ **When used in a VM600 slimline rack (ABE056) with a DC power supply, the relay contacts on a RLC16 card have a maximum switching voltage of 70 V_{DC} / 33 $V_{AC\ (RMS)}$ (46.7 $V_{AC\ (PEAK)}$).**

Relay card characteristics

Presentation	: 16 relay PCB
Relay state	: Normally energized or normally de-energized (jumper selectable)
External connections	: Screw-terminal connectors (J1, J2 and J3)
Mounting	: Installs in the rear of a VM600 rack and connects to the rack's backplane via a connector

SPECIFICATIONS *(continued)*

Environmental

Temperature

• Operating	: −25 to 65°C (−13 to 149°F)
• Storage	: −40 to 85°C (−40 to 185°F)

Humidity

• Operating	: 0 to 90% non-condensing
• Storage	: 0 to 95% non-condensing

Approvals

Conformity	: CE marking, European Union (EU) declaration of conformity. EAC marking, Eurasian Customs Union (EACU) certificate/ declaration of conformity.
Electromagnetic compatibility	: EN 61000-6-2. EN 61000-6-4. EN 61326-3-1. TR CU 020/2011.
Electrical safety	: EN 61010-1. TR CU 004/2011.
Vibration	: IEC 60255-21-1 (Class 2)
Insulation coordination for measuring relays and protection equipment	: Separate circuits according to IEC 60255-5 for the "separate circuits" version of the RLC16
Environmental management	: RoHS compliant
Russian federal agency for technical regulation and metrology (Rosstandart)	: Pattern approval certificate CH.C.28.004.A N° 60224

Power supply to card (input)

Power source	: VM600 rack power supply
Supply voltage	: +5 V_{DC}
Consumption	: 40 mA × 16 (per relay)

Connectors

J1	: 16-contact screw-terminal connector. Outputs (contacts) for relays RL1 to RL6.
J2	: 16-contact screw-terminal connector. Outputs (contacts) for relays RL6 to RL11.
J3	: 16-contact screw-terminal connector. Outputs (contacts) for relays RL11 to RL16.

Physical

Height	: 6U (262 mm, 10.3 in)
Width	: 20 mm (0.8 in)
Depth	: 125 mm (4.9 in)
Weight	: 0.30 kg (0.66 lb) approx.

ORDERING INFORMATION

To order please specify

Type	Designation	Ordering number (PNR)
RLC16	Different versions of the VM600 relay card:	
	– Standard version	200-570-000-1Hh
	– Separate circuits version	200-570-000-2Hh

Notes
"Hh" represents the hardware version. "H" increments are for major modifications that can affect product interchangeability.
"h" increments are for minor modifications that have no effect on interchangeability.

RELATED PRODUCTS

ABE04x	VM600 system racks	: Refer to corresponding data sheet
ABE056	VM600 slimline racks	: Refer to corresponding data sheet
AMC8 and IOC8T	VM600 analog monitoring card pair	: Refer to corresponding data sheet
CPUM and IOCN	VM600 modular CPU card and input/output card. Note: With a front-panel display and support for Modbus RTU/TCP or PROFINET.	: Refer to corresponding data sheet
CPUR and IOCR	VM600 rack controller and communications interface card pair. Note: With rack controller redundancy and support for Modbus RTU/TCP.	: Refer to corresponding data sheet
CPUR2 and IOCR2	VM600 rack controller and communications interface card pair. Note: With mathematical processing of fieldbus data and support for Modbus TCP and PROFIBUS.	: Refer to corresponding data sheet
IRC4	VM600 intelligent relay card	: Refer to corresponding data sheet
MPC4 and IOC4T	VM600 machinery protection card pair	: Refer to corresponding data sheets
MPC4G2 and IOC4G2	VM600 machinery protection card pair	: Refer to corresponding data sheet
RLC16G2	VM600 relay card	: Refer to corresponding data sheet
XMx16 and XIO16T	VM600 condition monitoring card pairs	: Refer to corresponding data sheet

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The Energy & Equipment division includes the Energy Sensing and Controls product group that specialises in sensing and monitoring solutions for a broad range of energy infrastructure, and control valves for industrial gas turbines, primarily for the Power Generation, Oil & Gas and Services markets. Energy & Equipment is headquartered in Switzerland (Meggitt SA) and incorporates the Vibro-Meter® product line, which has over 65 years of sensor and systems expertise and is trusted by original equipment manufacturers (OEMs) globally.

In this publication, a dot (.) is used as the decimal separator and thousands are separated by thin spaces. Example: 12345.67890.

Sales offices

Meggitt has offices in more than 30 countries. For a complete list, please visit our website.

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