VARES LOOP
TRT-400A RINGBUS MODULE
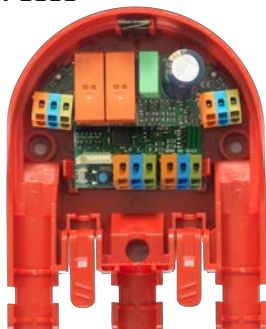
RCS®
AUDIO-SYSTEMS

Compatible with:
VARES 1500
VARES 2000
VARES 3000

EN 54-17 certified

+

The TRT-400A is a T-branch field-isolator-module with integrated volume control for the T-branch speaker load. A pilot-tone send over the speaker line will force the TRT-400A into 'override' mode forcing the attached volume control to switch to maximum audio level. Any local music source connected to the TRT-400A through the AUX input will mute.

The TRT-400A comes with a 11-step wall-controller. 0-9 / MAX / AUX.

The TRT-400A volume controller is equipped with an AUX entry for a local audio source that overrides by paging and emergencies.

Note: The TRT-400A needs to be placed-in between TRT-200A to ensure full isolator function on the MAIN loop. The T-Branch is secured and isolates on T-branch cable failure.

OPERATING INSTRUCTIONS – QUICK GUIDE
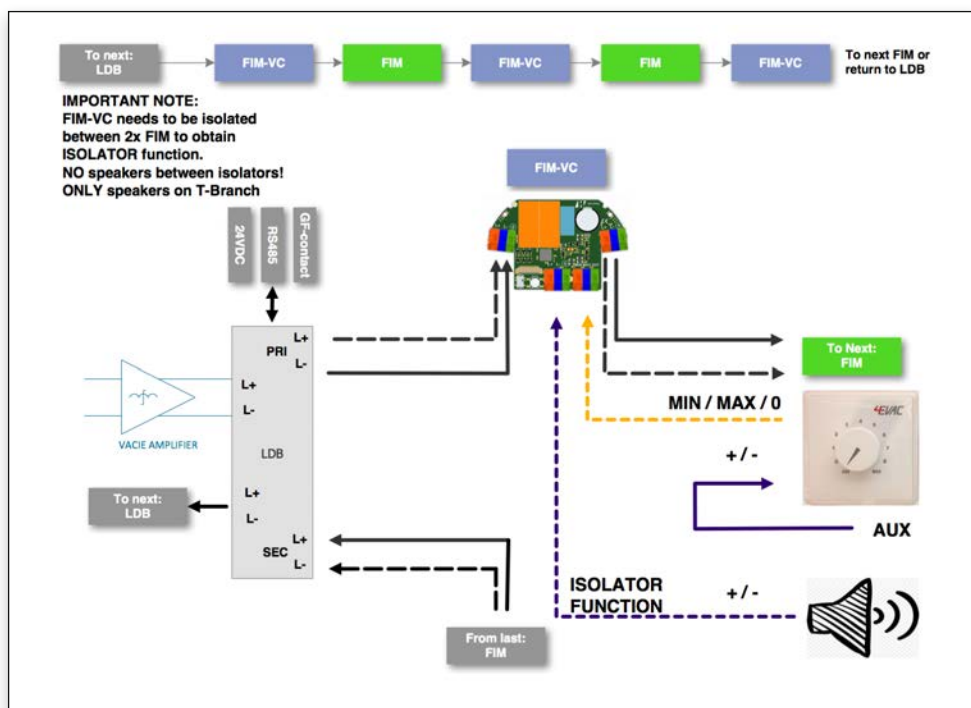**- ENGLISH**

RINGBUS MODULE **VARES⚡LOOP**

The TRT-400A is equipped with clearly market connectors. It has a LOOP-FEED and LOOP-RETURN connection that are not sensitive for feeding direction. LOOP has a DC-carrier for charging and communication purpose.

Please observe correct connectivity:
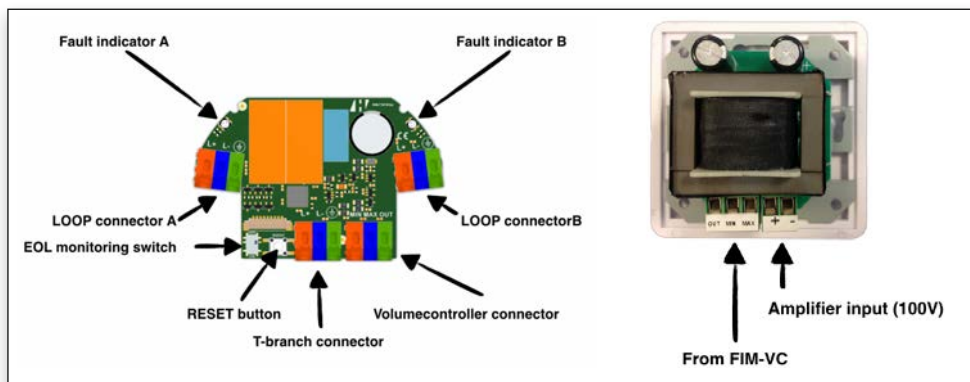**RED = PHASE / PLUS**
BLUE = ZERO / MINUS
GREEN = GROUND (If applicable)

NOTE: Any TRT-400A needs to be secured by a TRT-200A at each side. No speakers may be installed using the main Loop between any TRT-400A and TRT-200A.

The T-Branch load is maximised to 50W. The TRT-400A´s external controller has a 3-wire cable with a maximum length of 50m.

The OVERRIDE signal must be send together with any emergency message. The override signal must be: 20kHz / 7,5Vrms

VARES✦LOOP RINGBUS MODULE   RCS

Fault indicator A
Fault indicator B
LOOP connector A
LOOP connectorB
EOL monitoring switch
RESET button
Volumecontroller connector
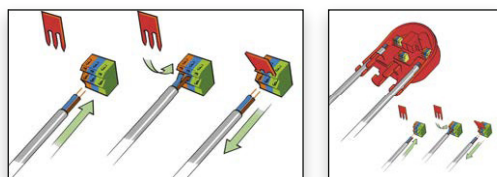T-branch connector
Amplifier input (100V)
From FIM-VC

The TRT-400A needs a **3-wire cable output that connects to the TRT-400A's remote volume controller** with a power handling of maximum 50W. The TRT-400A's volume controller has a separate AUX input for an external 100V amplifier. A local source is automatically override when emergency paging from the VACIE is applied. Same override function is applied when the volume controller is set to any other position than: MAX.

General TRT-400A isolator function on T-Branch only: The TRT-400A is equipped with a power capacitor that is charged by the LDB and has enough capacity to run at least two measurement cycles without the need for re-charging. The LED indicator(s) on the FIM are flashing with intervals to indicate quiescent or fault condition. The TRT-400A has a RESET button and EOL-enable switch. Please refer to the User and Installation manual V01R01 for detailed information.

No loudspeakers are allowed between TRT-400A and an TRT-200A on the main loop. The T-Branch has a load limit of 50W. If multiple loudspeakers are connected to the T-branch, the EOL switch need to be set on: ENABLE and a EOL resistor has to be applied.

The TRT-400A has two indicators that are related to the status of the T-branch only. If both indicators are flashing alternately, the fault information is related to the T-Branch status. Please refer to the User and Installation manual for detailed information on the various indications of these indicators.

The TRT-400A is equipped with WAGO push-terminals that accept up to 2,5 mm^2 core installation cable. A special tool is provided to quickly remove all three wires in one run. (Release-tool is included)

Technical data	TRC-400 A
Electrical	
DC Power supply (from TRC-800 A)	19 - 30 VDC, nominal 30 VDC
Volume override (from VACIE)	**20kHz / 7,5Vrms - fade-in: 0,3s / fade-out: 1,s**
DC Power consumption	
Idle current	100 µA continious
Max. power consumption	20mW
LOOP connection	
DC	30V
AC Voltage	100Vrms
Max. AC load	800W
AC Frequency range	40Hz - 20kHz (-3dB)
Wiring Loop	2-wire. Max. 2,5mm2 / Max. Loop length: 1000m
T-Branch output	
Load / EOL	50W / EOL = 47kOhm / 0,25W or higher
Detection	Short, wire-to-wire / Open T-Branch / Earth leakage T-Branch
Volume Controller	50W / 3-wire. Max. 2,5mm2 / Max. length: 50m
Grounding	optional earth loop through third connection pin
Loudspeaker type	only with DC-blocking capacitor
Maximum # of loudspeakers	
Between TRT-400 A and TRT-200 A	NO speakers are allowed between these devices
T-branch	Infinite within the maximum T-branch load of 50W (National standard may limit the number of loudspeakers)
Mechanical	
Housing	**PP plastic with transparent cover**
Dimensions (WxHxD)	IP 21 housing, 110 x 130 x 55 mm (Basic) IP 33 extension included. 110 x 180 x 55 mm (Optional)"
Ordering information. Part No.	
TRT-400 A	**1x IP21 housing with transparent cover and PCB**
	1 x release tool / 1 x compression gland for speaker mounting
	1x 50W volumecontroller
Certification and Approvals	
Complies with	EN54-17:2005 - 0560-CPR-142190002
European patent	EP 0967833B1

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