



Level



Pressure



Flow



Temperature



Pressure



Registration



Systems
Components



Services



Solutions

DIN rail signal conditioner RMA421

E-direct

www.e-direct.us



EA®
US

- All standard measurement signals such as current (4-20mA) voltage (0-10V), and temperature (RTD, TC, Ω)
- Flexible set point monitor with 2 relay contacts
- Scalable current or voltage output
- Integrated loop power supply for connected sensors
- HART® communication sockets for SMART sensor setup
- LC display and pushbuttons for front panel setup
- Built-in 32 point linearization function
- Galvanic isolation between I/P and O/P

Application

This single channel process transmitter RMA421 receives and processes measured signals. The modular concept enables use as a temperature transmitter, signal converter or contactor. The compact DIN rail construction, its standardized display and error mode are especially suited for the installation in control cabinets, for process control and laboratory equipment.

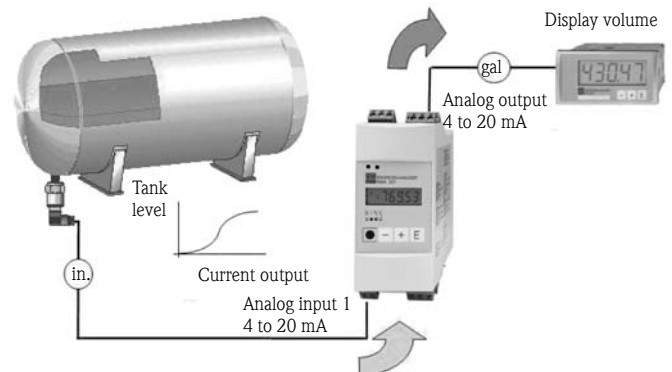
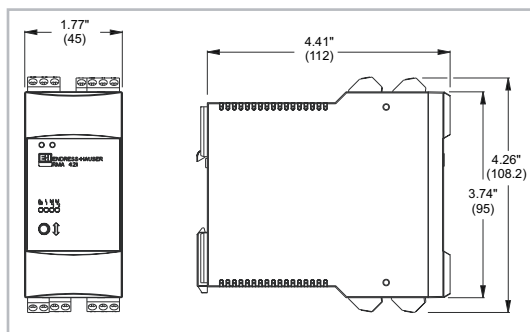
Measurement principle

The programmable universal input enables direct connection of various sensors, whether current, voltage, potentiometer, RTD or thermocouple. Using the built-in loop power supply the unit can power the connected sensor as well as evaluate the returning sensor signal at the input of the transmitter. Two programmable set points monitor the measured value for any deviation from the preset conditions. This opens up a number of possibilities for direct process control. The scalable analog output offers an instrument from which a matched signal can be obtained and transmitted to other instrumentation for further analysis such as a Recorder or PLC. Simple setting up using the front end interface is possible.

Continuous level measurement application example

Using pressure sensor as a hydrostatic level sensor and RMA421 process transmitter's built-in tank linearization function to output volume.

Dimensions in inches (mm)



HART® is a registered trademark of HART Communication Foundation, Austin, USA

Technical Datasheet
TD 007E/US/ae/10.09
US/INDD CS


Endress+Hauser

People for Process Automation

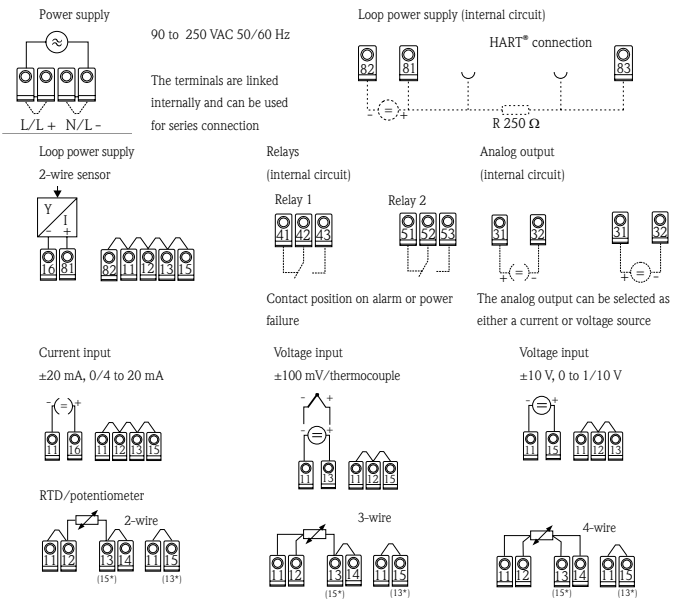
RMA421

Technical data

Input	
■ Signal input	1 universal input (0/4 to 20 mA, ± 20 mA, ± 100 mV, ± 10 V, 0 to 1 V, 0 to 10 V); thermocouple (TC) types T, J, K, N, R, S, B to DIN 437710; W3, W5 to ASTM E 988; RTD types Pt100 (Pt500, Pt 1000) to DIN EN 60751, Ni100 to DIN 43760
■ Measurement range	Voltage: ± 100 mV, ± 10 V, Ri: 1 MOhm 5 Ohm current
■ Linearization	Possible using up to 32 points
■ Accuracy	0.05% Full Scale Displayed
Output	
■ Transmitter loop power supply	24 VDC ± 20 %, 30 mA
■ Analog output	optional 0/4 to 20 mA, 20 to 4/0 mA or 0 to 10 V
■ Alarm function	2 relays, SPDT max. rating 250 V AC, 5 A
Operating conditions	
■ Protection	NEMA 1
Mechanical construction	
■ Materials	Housing: PC/ABS, UL 94 VO
■ Electrical connection	Keyed, plug on screwed terminals, size 16 AWG solid core, 18 AWG multi core with ferrule
User interface	
■ Display	Five 7-segment LCD display (0.25") and LED for limit, operation and alarm condition
■ Display range	-19999 to +99999
■ Operation	3 pushbuttons

Power supply	
■ Supply voltage	90 to 250 VAC, 50/60 Hz
Accessories	
■ Protective housing	NEMA 4X Protective housing for field mounting including 5 cable glands
Approvals	
■ Certification	UL Recognized UL 3111-1 

Electrical connection



* Connect Pt500 and Pt1000 to terminal 15, link 13 and 11

Many other models, versions and options are available. Please contact Endress+Hauser for more information.

Product	Version	Order no.	Price/piece in \$			we hereby order:	total price:
			1 to 5	6 to 15	16 to 35		
RMA421	90 to 253 VAC / with 2 alarm relays	RMA421-A11A2A	\$346.00	\$312.00	\$281.00	pcs	\$
	90 to 253 VAC / with 2 alarm relays and analog output	RMA421-A11A4A	\$412.00	\$371.00	\$334.00	pcs	\$

Accessories ¹⁾	NEMA 4X Protection housing	51002468	\$114.00	pcs	\$
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Net excluding cost of shipping and taxes.
Acceptance per our Standard Terms and Conditions (find at www.e-direct.us).

Total price: FOB Greenwood, IN; shipped pre-paid; shipping charges and applicable taxes added to invoice.	\$ _____
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E-direct catalog (free)

Shipping method Ground Priority One Day Priority Two Day



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Online Shop www.e-direct.us
Order: by phone 888-EH DIRECT (343-4732)
by fax 800-321-7754
For special requests, e-mail us: e-direct@us.endress.com

Warranty Should an instrument fail during the 1 year warranty period, a replacement unit will be provided.
Delivery Shipment from receipt of order for quantities 1-3 within 2 business days.