RIA452
Process indicator with pump control

Digital process meter in panel mounted housing for monitoring and displaying analog measured values

Benefits:
- 7-digit 14-segment LC display, large bar graph with overrange and underrange
- Digital status inputs for pump monitoring
- Flow measurement for open channels and weirs
- Intrinsically safe input with integrated loop power supply
- Min/Max value saved
- Linearization table with up to 32 support points

Specs at a glance
- **Input** 1 x analog (U, I, RTD, TC, R)
- **Output** 1 x analog (U, I) 1 x transmitter power supply
- **Display** LCD multicolour Illuminated Bargraph
- **Power Supply** 90...250 V AC 20...28 V AC 20...36 V DC

Field of application: The process meter monitors and displays the analog measured values. Pumps can be monitored with the digital status inputs. The RIA452 can provide power directly to two-wire sensors connected. Up to eight freely programmable relays monitor the measured value. Other operating modes for the relays include sensor or device malfunction, batch and pump control functions. Furthermore, the RIA452 can be used as a preset counter and for measuring flow at open channels and measuring weirs.

Features and specifications
**Process indicator & control units**

**Measuring principle**
Indicators with control unit

**Measuring principle**
Process indicator with pump control

**Function**
Display
Power
Switch
Separate
Convert
Count
Calculate

**Display**
LCD multicolour
Illuminated
Bargraph

**Power Supply**
90...250 V AC
20...28 V AC
20...36 V DC

**Input**
1 x analog (U, I, RTD, TC, R)

**Output**
1 x analog (U, I)
1 x transmitter power supply
Process indicator & control units

Software functions
- Pump control
- Linearisation
- Flow calculation
- Batch counter

Certificates
- FM AIS I,II,III/1/ABCDEFG
- CSA (Ex ia)I,II,III/1/ABCDEFG

SIL
- Not defined

Panel mounting
- Panel mounting

Acquisition / Evaluation

Measuring principle
- Display

Function
- Display
- Power
- Switch
- Separate
- Convert
- Count
- Calculate

Certification
- UL rec. Comp
- ATEX Ex i
- FM USA IS
- FM USA NI
- CSA IS
- CSA NI
- TIIS Ex ia
**Acquisition / Evaluation**

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<tr>
<th><strong>Input</strong></th>
<th>1 x analog (U, I, RTD, TC, R)</th>
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<tbody>
<tr>
<td><strong>Output</strong></td>
<td>1 x analog (U, I)</td>
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<td>1 x transmitter power supply</td>
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<tr>
<td><strong>Relay output</strong></td>
<td>4...8 x changeover contacts</td>
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<tr>
<td><strong>Auxiliary power supply / Loop power supply</strong></td>
<td>90...250 V AC</td>
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<td></td>
<td>20...28 V AC</td>
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<td>20...36 V DC</td>
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<tr>
<td><strong>Dimensions (wxhxd)</strong></td>
<td>Panel housing:</td>
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<tr>
<td></td>
<td>96 x 96 x 161.3 mm</td>
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<tr>
<td></td>
<td>(3.78&quot; x 3.78&quot; x 6.35&quot;)</td>
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<tr>
<td><strong>Software</strong></td>
<td>Pump control</td>
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<td>Flow calculation</td>
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<tr>
<td><strong>Operation</strong></td>
<td>3 keys</td>
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<td></td>
<td>Interface RS252 + ReadWin2000</td>
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<td><strong>Display</strong></td>
<td>LCD multicolour</td>
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More information [www.us.endress.com/RIA452](http://www.us.endress.com/RIA452)