

# MINI Analog – Modular and system-compliant

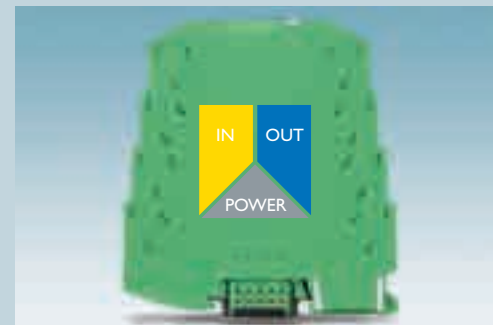
Measuring temperatures, converting or isolating signals – no problem thanks to the analog range from Phoenix Contact. MINI Analog provides state-of-the-art technology to meet the highest requirements and provides maximum convenience during servicing. With the addition of the new MINI Analog adapter, it is now system-compatible. Three power supply options and extensive accessories complete the portfolio.

**Connection technology**  
Either screw or spring cage.

**System capability**  
The MINI Analog adapter with new "Plug & Play" plug-in concept considerably reduces wiring cost and errors.

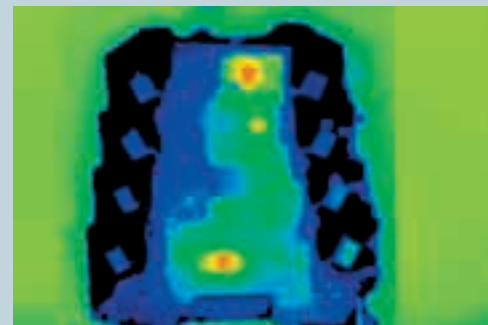
**Ex n**  
MINI Analog modules can be used in explosive gas areas. The modules are classified as 3G in accordance with the ATEX directive 94/9/EC.

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### Operational reliability

Consistent electrical isolation between the input, output and supply increases operational reliability with respect to disturbances in the system.



### Current consumption

MINI Analog has a low current consumption due to an innovative circuit concept. This results in minimum self-heating and therefore maximum service life.



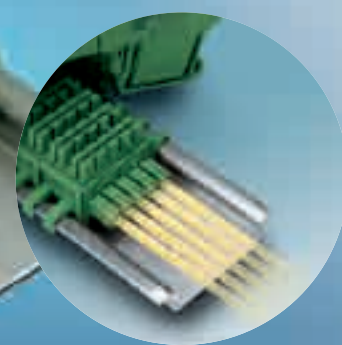
### Configuration

Input and output signals are configurable using DIP switches.



### Design width

The particularly narrow width of 6.2 mm and the uniform housing shape of the MINI Analog range saves space in the control cabinet.



### Voltage bridging

The DIN rail connector unites the family.

- Less wiring
- Fast installation
- Simple extension of the modular system

## Supply voltage – smart and flexible with MINI Analog

When more than one MINI Analog module is used, the DIN rail connectors ease the connection of supply voltage: simply insert into the DIN rail and snap onto the module - the supply voltage will be routed through the DIN rail connector.

### The advantage is evident while the system is running:

Individual MINI Analog modules can be easily replaced during operation without interrupting the power supply to other modules.

### There are a host of options to feed in the supply voltage:

- Any MINI analog module can be used to feed up to 400 mA to the DIN rail connector. This means that power can be supplied to a maximum of 16 MINI Analog modules with a power consumption of 25 mA per module.
- Power terminals with the same shape can be used to feed a current of up to 2 A to the DIN rail connectors. This enables power to be supplied to a maximum of 80 MINI Analog modules with a power consumption of 25 mA per module. Additionally, the power terminals allow redundant supply. If the polarity of the supply voltage reverses, a diagnostics LED and an internal protective circuit report and protect.
- The MINI-SYS power supply can be used to feed up to 1.5 A to the DIN rail connector. Power can therefore be supplied to a maximum of 60 MINI Analog modules with a power consumption of 25 mA per module.

### Advantages:

- Wide-range input of the MINI-SYS
- Diagnostics LED for supply voltage
- Overload of the DIN rail connector is prevented
- Simple alignment of the MINI-SYS on the DIN rail connector



Direct supply



Power terminal block



MINI SYS power supply unit

## The full range of products

MINI Analog offers a product range in a small 6.2 mm housing, which can be seen in the areas of:

### Isolation

- Isolation amplifiers
- Repeater power supply
- Signal duplicators
- Passive isolators



### Temperature

- Temperature measuring transducer for PT100 and thermocouples



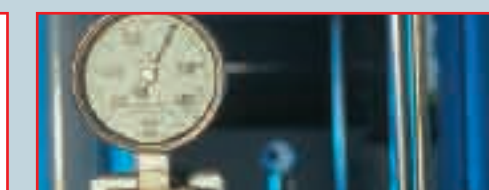
### Conversion

- Analog frequency transducer
- Potentiometer position measuring transducer



### Control

- Configurable limit value switch
- NAMUR switching amplifiers



### Accessories

- DIN rail connectors
- Power terminals
- System power supply
- System cabling
- Labeling options
- MINI Analog feed-through terminal block



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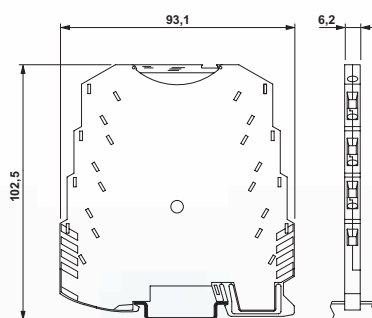


# MINI Analog – The complete range with system

## MINI Analog – Technical Data

### Common technical data

Supply voltage: 19.2...30 V DC  
 Test voltage: 1.5 kV  
 Temperature range: -20...+60 °C  
 Power dissipation: < 500 mW  
 Certifications:



### Isolation

3-way isolation amplifier, configurable	Standard signal 3-way isolation amplifiers			Signal duplicator, can be configured on the input side	Repeater power supply (HART)		Single and double-channel passive isolators
<b>Input signal</b> 0(4)...20 mA; 0...10 V; 0(1)...5 V	<b>Input signal</b> 0...24 V; 0...30 V	<b>Input signal</b> 0(1) 0(4)...20 mA; (2) 0...10 V; ±	<b>Input signal</b> 0...10 mA	<b>Input signal</b> 0...10 mA	<b>Input signal</b> 0(4)...20 mA; 0...10 V	<b>Input signal</b> 4...20 mA for 2 and 3-conduct. transmitter	<b>Input signal</b> 0(4) - 20 mA HART signal is transmitted
<b>Output signal</b> 0(4)...20 mA; 0...10 V; 0(1)...5 V	<b>Output signal</b> 0(4)...20 mA; 0(2)...10 V; 0(1)...5 V	<b>Output signal</b> (1) 0(4)...20 mA; (2) 0...10 V; ±	<b>Output signal</b> 0...10 mA	<b>Output signal</b> 0...10 mA	<b>Output signal</b> 2 x 0...20 mA or 2 x 4...20 mA	<b>Output signal</b> 4...20 mA	<b>Output signal</b> 0(4) - 20 mA
<b>Screw connection:</b> MINI MCR-SL-UI-UI Order No. 2864383 (configured) MINI MCR-SL-UI-UI-NC Order No. 2864150 (not configured)	<b>Screw connection:</b> MINI MCR-SL-UI-UI-NC Order No. 2864007 (not configured)	<b>Screw connection:</b> MINI MCR-SL-I-I Order No. 2864406 (1) MINI MCR-SL-U-U Order No. 2864684 (2)	<b>Screw connection:</b> MINI MCR-SL-I-U-0 Order No. 2813512 MINI MCR-SL-U-I-4 Order No. 2813525	<b>Screw connection:</b> MINI MCR-SL-I-U-0 Order No. 2813541 MINI MCR-SL-U-4 Order No. 2813538	<b>Screw connection:</b> MINI MCR-SL-UI-2I Order No. 2864794 (configured) MINI MCR-SL-UI-2I-NC Order No. 2864176 (not configured)	<b>Screw connection:</b> MINI MCR-SL-RPS-I-I Order No. 2864422	<b>Screw connection:</b> MINI MCR-SL-RPSS-I-I Order No. 2864079
<b>Spring-cage connection:</b> MINI MCR-SL-UI-UI-SP Order No. 2864710 (configured) MINI MCR-SL-UI-UI-SP-NC Order No. 2864163 (not configured)	<b>Spring-cage connection:</b> MINI MCR-SL-UI-UI-NC Order No. 2810078 (not configured)	<b>Spring-cage connection:</b> MINI MCR-SL-I-I-SP Order No. 2864723 (1) MINI MCR-SL-U-U-SP Order No. 2864697 (2)	<b>Spring-cage connection:</b> MINI MCR-SL-I-U-0-SP Order No. 2813513	<b>Spring-cage connection:</b> MINI MCR-SL-U-I-4-SP Order No. 2813583	<b>Spring-cage connection:</b> MINI MCR-SL-UI-2I-SP Order No. 2864804 (configured) MINI MCR-SL-UI-2I-SP-NC Order No. 2864189 (not configured)	<b>Spring-cage connection:</b> MINI MCR-SL-RPS-I-I-SP Order No. 2864752	<b>Spring-cage connection:</b> MINI MCR-SL-RPSS-I-I-SP Order No. 2810230

### Temperature

Conf. temperature measuring transducer for PT 100 -150°C ... +850°C, -50°C ... +200°C	Conf. temperature measuring transducer for thermocouple types J or K	Loop-powered temperature measuring transducer for PT 100 -50°C ... +300°C
<b>Input signal</b> 2, 3 or 4-conductor, in accordance with IEC 751/EN 60751; Temperature range -150°C...+850°C	<b>Input signal</b> 2, 3 or 4-conductor, in accordance with IEC 751/EN 60751; Temperature range -50°C...+200°C	<b>Input signal</b> Thermocouple types J or K in accordance with IEC 584-1; Adjustable temperature range
<b>Output signal</b> 0(4)...20 mA; 0...10 V; 0(1)...5 V Fault evaluation	<b>Output signal</b> 0(4)...20 mA; 0...10 V; 0(1)...5 V Fault evaluation	<b>Output signal</b> 4...20 mA/20...4 mA
<b>Screw connection:</b> MINI MCR-SL-PT100-UI Order No. 2864435 (configured) MINI MCR-SL-PT100-UI-NC Order No. 2864273 (not configured)	<b>Screw connection:</b> MINI MCR-SL-PT100-UI-200 Order No. 2864309 (configured) MINI MCR-SL-PT100-UI-200-NC Order No. 2864370 (not configured)	<b>Screw connection:</b> MINI MCR-SL-TC-UI Order No. 2864448 (configured) MINI MCR-SL-TC-UI-NC Order No. 2864299 (not configured)
<b>Spring-cage connection:</b> MINI MCR-SL-PT100-UI-SP Order No. 2864736 (configured) MINI MCR-SL-PT100-UI-SP-NC Order No. 2864286 (not configured)	<b>Spring-cage connection:</b> MINI MCR-SL-PT100-UI-200-SP Order No. 2864192 (configured) MINI MCR-SL-PT100-UI-200-SP-NC Order No. 2864202 (not configured)	<b>Spring-cage connection:</b> MINI MCR-SL-PT100-LP-SP Order No. 2810382 (configured) MINI MCR-SL-PT100-LP-NC-SP Order No. 2810395 (not configured)

### Accessories

<b>DIN rail connectors</b> ME 6,2 TBUS-2 1,5/5-ST3,81 GN Order No. 2869728 Voltage bridging for two MINI Analog converters. Maximum current carrying capacity: 8 A transverse/parallel to the DIN rail; 2 A for the module ME 17,5 TBUS 1,5/ 5-ST3,82 GN © Order No. 2709561 Voltage bridging for MINI-SYS system power supply (2 pieces required).	<b>Power terminals</b> Screw connection: MINI MCR-SL-PTB Order No. 2864134 Spring-cage connection: MINI MCR-SL-PTB-SP Order No. 2864147 With visual voltage display. For redundant power supply. Inputs: 20...30 VDC. Output: max. 2 A	<b>System power supply</b> MINI-SYS-PS100-240AC/24DC/1.5 Order No. 2866983 Current routed through a DIN rail connector or pluggable screw terminal block. Wide-range input: 85-264 V AC (45-65 Hz) Output voltage: 24 V DC ± 1 % Output current: 1.5 A at 60°C/2 A at 40°C Power loss: < 12 W at nominal load MINI-SYS-PS 100-240AC/24DC/1.5Ex Order No. 2866653 (Ex-n-compatible).	<b>System cabling</b> MINI MCR-SL-V8-FLK 16-A Order No. 2811268 MINI analog system adapter FLK 16/EZ-DR/300/KONFEK Order No. 2299330 Assembled round cable with two 16-pos. socket strips FLKM 16-PA-S300/MINI-MCR Order No. 2314749 VARIOFACE Front adapter for SIMATIC SI-300 MINI MCR-SL-TB Order No. 2811420 MINI Analog feed-through terminal block	<b>Identification</b> MINI MCR DKL Order No. 2308111 Fold-up transparent cover, for labeling MINI Analog modules with insert strips MINI MCR-DKL-LABEL Order No. 2810272 Insert strips, stamped, for transparent cover ZBF6... (see CLIPLINE catalog) Flat-ribbon labeling
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Further information on the products introduced here and on the world of solutions from Phoenix Contact can be found at [www.catalog.phoenixcontact.com](http://www.catalog.phoenixcontact.com)



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