

SIL
IEC 61508



PL
EN ISO 13849



Signal conditioners, process indicators, and field devices

Transmit and visualize signals
without interference

Transmit and visualize signals without interference

Our signal conditioners, process indicators, and field devices cover all the tasks related to interference-free signal transmission – from sensor level to control level.

i Web code: #0960

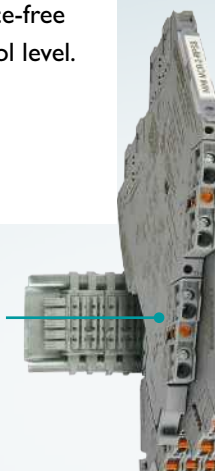


Highly compact signal conditioners

MINI Analog Pro offers you the easiest installation and startup in the tightest of spaces. Push-on gateways transmit a maximum of any eight field signals to industrial networks without any interference.

Field devices

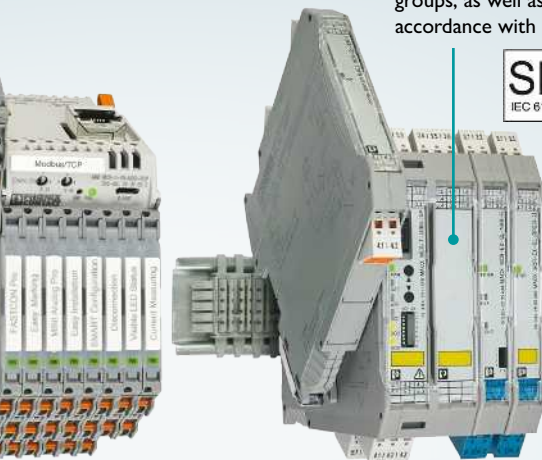
With Field Analog field devices, you can acquire and convert the signals from resistance thermometers, thermocouples, resistance-type sensors, and voltage sensors directly in the field.



COMPLETE line

Signal conditioners with functional safety and explosion protection

MACX Analog offers you explosion protection for all zones and material groups, as well as functional safety in accordance with SIL and PL.



SIL
IEC 61508

PL
EN ISO 13849

Ex n

TECEX

Ex i

Process indicators

Process indicators in the Field Analog series enable you to monitor, control, and display analog and temperature signals.



Ex n

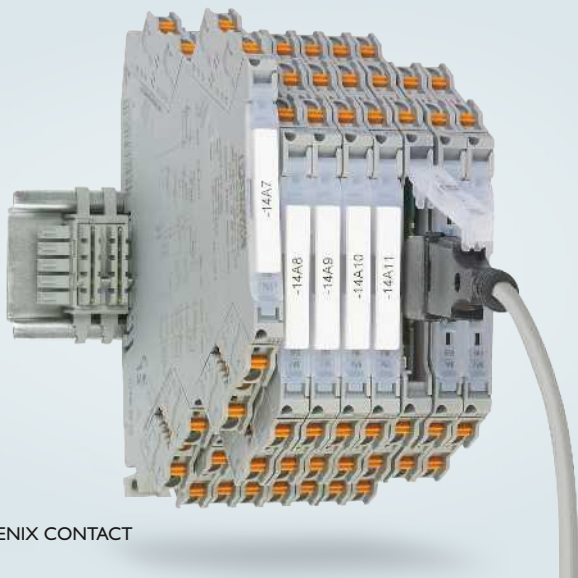
Ex i

TECEX

Highly compact signal conditioners

Highly compact MINI Analog Pro signal conditioners make installation and startup in confined spaces incredibly straightforward.

i Web code: #0492



Your advantages

- ✓ Easy installation, thanks to highly accessible terminal points and pluggable connection terminal blocks
- ✓ Current signals can be measured during operation without disconnecting any current loops
- ✓ Versatile parameter configuration via DIP switch, software, or app
- ✓ Rapid power bridging and group error message via the DIN rail connector
- ✓ Easy to maintain, thanks to large marking areas and status LEDs in every device

Easier than ever but slim as before

MINI Analog Pro is the first 6 mm signal conditioner range to feature pluggable connection technology. Clearly visible, highly accessible terminal points and current measurement during operation make your work easier than ever.

Signal conditioners with bus and network connection

With plug-on MINI Analog Pro gateways, you combine the advantages of safe electrical isolation with the benefits of digital communication.

i Web code: #1136



Your advantages

- ✓ Network integration of signal conditioners in any combination by using compact gateways
- ✓ Interference-free signal transmission to the CPU, thanks to safe electrical isolation
- ✓ Reduces costs and saves space by omitting signal-specific input cards
- ✓ Fast, error-free signal bundling on one network cable
- ✓ Convenient configuration and monitoring via the MINI Analog Pro app or web interface

Safely isolated from field to network

With an overall width of less than 50 mm, you can transmit a maximum of any eight field signals in industrial networks with safe electrical isolation and without the need for signal-specific input cards. You can also benefit from consistent electrical isolation right through to the CPU, also between the individual channels.

Signal conditioners with functional safety and explosion protection

MACX Analog offers maximum safety for your applications with comprehensive explosion protection and functional safety.

i Web code: #1137



Your advantages

- ✓ Safe and reliable: international Ex approvals and functional safety in accordance with SIL and PL
- ✓ High signal quality, thanks to safe electrical isolation and long service life due to low self-heating
- ✓ Overall width of just 12.5 mm for single- and two-channel standard functions
- ✓ Easy 24 V power bridging with group error messaging or wide-range input up to 230 V AC/DC
- ✓ Service-friendly connection technology: coded, pluggable terminal blocks

Reliable and safe

MACX Analog signal conditioners offer you comprehensive solutions for safe, interference-free analog and digital signal processing. In addition to explosion protection for all zones and material groups, MACX Analog provides functional safety in accordance with SIL IEC/EN 61508 and PL EN ISO 13849.

System cabling for signal conditioners

Termination Carriers and MINI Analog Pro system adapters are Plug and Play solutions for the fast, error-free connection of a large number of signals from the field to your automation system.

i Web code: #1138



Your advantages

- ✓ Significant space savings, thanks to side-by-side arrangement of compact module carriers
- ✓ High failsafe performance: stable aluminum profile with passive PCB without active components
- ✓ Just one engineering design for standard DIN rails and system applications
- ✓ Optimum adaptation, thanks to a variety of system connectors and front adapters for the I/O cards of various automation systems
- ✓ Easy wiring, thanks to pluggable, coded cable sets and pre-assembled system cables

Our Termination Carriers are available for the following standard DIN rail devices:

- MINI Analog Pro highly compact signal conditioners
- MACX Analog signal conditioners with functional safety and explosion protection
- PSR SIL coupling relay

The system adapter allows you to connect any eight MINI Analog Pro signal conditioners to your controller.



Process indicators and field devices

Monitor and control your process values or record temperatures directly in the field with our products in the Field Analog series.

i Web code: #1140



Your advantages

- ✓ Simple configuration of process indicators using front keyboard or FDT / DTM software
- ✓ Everything at a glance: display values, bar charts, or measuring point designation, additional color change in the event of an error
- ✓ Digital transfer, display, and remote configuration of process data via integrated HART communication
- ✓ Can be used internationally, thanks to UL and CSA approvals
- ✓ Also for intrinsically safe circuits in the Ex area: versions with ATEX, CSA, and FM approval

Record, control, monitor

Field Analog process indicators enable you to monitor and display analog and temperature signals, and also control via digital and analog outputs. With the field devices, you can record temperatures directly on site and convert them into analog standard signals.

Benefit from our expertise

Our user manual and basics brochures offer you plenty of useful information on the topics of analog signal transmission and explosion protection.



Analog signal transmission in MCR technology

The user manual “Analog signal transmission in MCR technology” is an introduction to the technical/practical basics of analog data transmission that are essential for automation and process control technology. The user manual points out risks to functional safety and mistakes that are frequently made during the planning or installation phase, or those that may be encountered during system troubleshooting.

Explosion protection – Theory and practice

The “Explosion protection – Theory and practice” brochure is a comprehensive and informative reference work on all issues related to explosion protection. It is especially designed for installers, planners, and operators of systems with explosive atmospheres. Alongside the fundamentals and basic technical knowledge, you will learn about important aspects of installing systems in potentially explosive areas.

You will find the brochures online on our product category pages, along with other useful information.

Find out more with the web code

For detailed information, use the web codes provided in this brochure. Simply enter # and the four-digit number in the search field on our website.

 **Web code:** #1234 (example)

Or use the direct link:

phoenixcontact.net/webcode/#1234

Printed in Germany
© PHOENIX CONTACT 2019

PHOENIX CONTACT GmbH & Co. KG

Flachsmarktstraße 8

32825 Blomberg, Germany

Phone: +49 52 35 3-00

Fax: +49 52 35 3-4 12 00

E-mail: info@phoenixcontact.com

phoenixcontact.com

IF 06-19.004.L3
MNR 1067620/2019-05-20/01

 **PHOENIX
CONTACT**

INSPIRING INNOVATIONS