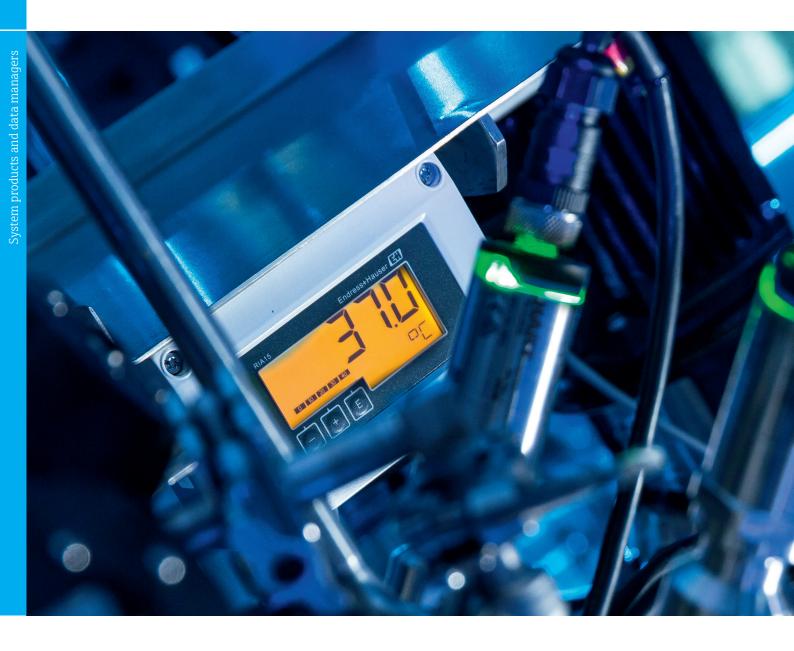
# System products and data managers

Solutions to complete your measuring point





# Power supplies & barriers, overvoltage protection

**RN22** 



# Active barrier | 24 V DC

- 1/2 channel, signal doubler
- 4 ... 20 mA/HART®, T-connector In/Out active or passive,
- HART® signal tapping cULus, SIL 2 (SC 3), Marine (DNV)
- ATEX/IECEx, EAC, NEPSI, CSA, JPN Ex

RLN22



## NAMUR isolating amplifier | 24 V DC

- 1/2 channel, relay output, T-connector Line fault detection, wire break or
- short-circuit SIL 2, Marine (DNV)
- ATEX/IECEx

RNO22



## Output isolating amplifier | 24 V DC

- 4 ... 20 mA/HART®
- Line fault detection
- SIL 2 (SC 3), Marine (DNV)
- ATEX/IECEx

RNB22



#### System power supply I 100-250 V AC/24 V DC 2.5 A

- Static/dynamic boost 3.125 A / 5 A
- Parallel operation for redundancy
- Preventive function monitoring Power supply for RN Series or 4 W sensors

RNF22



# Power supply / error signal doubler module Single or redundant power supply in

- T-connector up to 3.75 A, with fuse
- Error message in case of power failure
- Group error message for NAMUR devices ATEX/IECEx, Marine (DNV)

**RN42** 



### Active barrier | 24 to 230V AC/DC

- 1 channel, 4 ... 20 mA/HART® In/Out active or passive, HART® sockets
- Optional 180° rotated installation
- cULus, SIL 2 (SC 3), Marine (DNV)
- ATEX/IECEx, EAC, NEPSI, CSA, IPN Ex

RLN42



#### NAMUR isolating amplifier | 24 to 230 V AC/DC

- 2 channel, relay output
- Line fault detection, wire break or short-circuit
- SIL 2, Marine (DNV)
- ATEX/IECEx

**RB223** 



- 1/2 channel, loop-powered • 4 ... 20 mA; input or output
- HART® sockets
- ATEX, FM, CSA

**HAW562** 



#### Surge arresters DIN rail

- 4 ... 20 mA, HART®, PFM, PROFIBUS PA/DP, FOUNDATION Fieldbus or RS-485, Modbus, 10-55 V: 90-230 V
- SIL 2; ATEX/IECEx, non-Ex, CSA
- **HAW569**



# Surge arresters

- For installation in field device
- 4 ... 20 mA, HART®, PFM, PROFIBUS PA, FOUNDATION Fieldbus, 0-66 V or 80-230 V
- Non-Ex; Ex ia/d; ATEX/IECEx, CSA

# **Process indicator & control units**

**RIA15** 

#### Loop-powered

- 4 ... 20 mA or HART®
- Versions for level, analysis
- Field housing or panel
- Fx ia
- Aluminum or polymer (PC)
- SIL, Marine (DNV)
- ATEX, FM, CSA, IECEX, EAC, IPN Ex, NEPSI

RIA14



#### Loop-powered

- 4 ... 20 mA, HART® transparent
- Field housing, aluminum or 316L
- Ex d (flameproof) cllRus Marine (DNV)
- ATEX, FM, CSA, IECEx, EAC, NEPSI, TIIS

**RIA16** 



- 4 ... 20 mA, HART® transparent
- Field housing, aluminum or polymer (PC)
- Ex ia
- cURus, Marine (DNV)
- ATEX, FM, CSA, IECEx, EAC, NEPSI

RID14



#### Fieldbus indicator FOUNDATION Fieldbus or

- PROFIBUS PA, 8 channels
- Field housing, aluminum or stainless steel (316L)
- Ex d (flameproof)
- ATEX. CSA. FM. IECEX

RID16



#### Fieldbus indicator ■ FOUNDATION Fieldbus or

- PROFIBUS PA. 8 channels
- Field housing, aluminum or polymer (PC) ■ Fx ia
- ATEX, CSA, FM, IECEx

RMA42

RIA45

RIA46

**RIA452** 



#### Process indicator with control unit 1/2 analog, temperature inputs

- 1/2 analog, 0/2 relay outputs
- Multiplication, average, differential
- functions Linearization, limit value, overfill
- cURus, SIL 2, Marine (DNV)
- ATEX, FM, CSA, NEPSI

## Process indicator with control unit

- 1/2 analog, temperature inputs 1/2 analog, 0/2 relay outputs
- Multiplication, average, differential functions
- Linearization, limit value, overfill prev.
- cURus, SIL 2, Marine (DNV)
- ATEX, FM, CSA

## Process indicator with control unit

- 1/2 analog, temperature inputs 1/2 analog, 0/2 relay outputs Multiplication, average, differential
- Linearization, limit value, overfill prev.
- cURus, SII 2

functions

ATFX, FM, CSA

#### **Process indicator**

- Alternating pump control
- Linearization, integration Limit function

■ 1 analog input, 4/8 relay outputs

■ FM, CSA

# **Application & energy managers**

**RH33** 

**RS33** 

**RA33** 

RMS621

**RMC621** 



- BTU meter for custody transfer

  Water, glycol, other fluids
  Bidirectional measurement
  IAPWS-97 calculation standard
  Web server, USB, TC/IP, Modbus, M-Bus
  MID, OIML R75, CSA GP, PTB

## Steam calculator; mass and energy

- Saturated and superheated s
   Bidirectional measurement

- Batch controller

  Batching and dosing

  Automatic after-run correction

  ASTM D1250-04

  USB, TCP/IP, Modbus TCP, RTU, RS-232

  CSA GP, NTEP

Steam and heat computer



## Universal flow/energy computer

- Up to 3 applications
  IAPWS-97, NX19, SGERG88, AGA8
  RS-232, 2x RS-485, PROFIBUS DP, Modbu
  M-Bus, OIML R75, ATEX, CSA, FM

# SFG250 **Data managers & data loggers**

RSG35

RSG45

-MS20/MS21



- Graphic data manager
  Up to 12 universal inputs
- 4 math channelsUSB, Ethernet, RS-232/RS-485 ■ Modbus RTU/TCP slave

- Front panel; stainless steel, DIN rail
  Math channels, telealarm
  Batch controller, energy computer
  W\_WW application packages
  Trustsens calibration monitoring
- Up to 20 universal channels (analog/HART®)
  - EtherNet IP
     Modbus RTU/TCPMaster/Slave, USB

6/14 DI; 60 limit values, 12 relay outputs
 RS-232/RS-485; PROFINET I/O,

- **FDM**
- Data integrity in accordance with
- AI COA+

# Connectivity

**SWA70** 

**SWG70** 

**SMT70** 

SMT77

SMT50

**SFG500** 

**SGC500** 

**SGC200** 

## WirelessHART® adapter

- Fast upgrade of HART® devices to WirelessHART® technology Wireless transmission of 4 ... 20 mA/
- ATEX, CSA, IEC Ex, JPN Ex



# WirelessHART® Fieldgate

- Easy commissioning and diagnosis of a self-organizing WirelessHART® network
- Ethernet and RS-485 interfaces
- ATEX, IECEx Ex, FM

Tablet PC for device configuration

- HART®, PROFIBUS DP/PA, FOUNDATION Fieldbus, Modbus protocols
- Connection to Netilion (Endress+Hauser IIoT ecosystem) ■ ATEX, NEC/CEC, IECEx

Tablet PC for device configuration

- HART®, PROFIBUS DP/PA, FOUNDATION Fieldbus, Modbus protocols Connection to Netilion
  - (Endress+Hauser IIoT ecosystem)

Tablet PC for Field Xpert

- WLAN + WWAN LTE+GPS for EU / US
- Application in non-Ex areas

- Ethernet HART® gateway
- and configuration Integrated web server
- Ethernet/PROFIBUS gateway
  - Ethernet/PROFIBUS DP gateway with integrated web server ■ Monitoring of PROFIBUS and HART® device status

■ Fieldgate modules SFM500: display

of process values and diagnostics



- FieldEdge
   PROFIBUS, HART®, WirelessHART®
- in conjunction with Fieldgates Connection to Netilion (Endress+Hauser IIoT ecosystem)



- Bluetooth®/LTE
- API (Application Programming Interface) Connection to Netilion (Endress+Hauser)
- BT/Wireless HART® adapter (FieldPort)
- - Converts HART® signal of field device to Bluetooth® or Wireless HART® signal
- 2- and 4-wire HART® field devices



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## Endress+Hauser Temperature+System Products

Endress+Hauser Wetzer GmbH + Co. KG Obere Wank 1 D-87484 Nesselwang

Tel.: +49 8361 308-0 Fax: +49 8361 308-110

www.ehts.endress.com