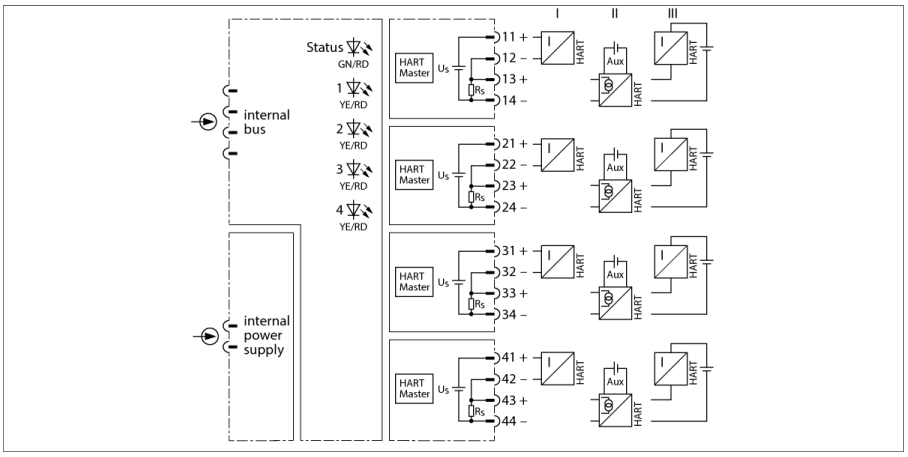
excom I/O System
Input Module, Analog, HART, 4-channel
AIH401-N



The input module AIH401-N is used for connection of active and/or passive 2-wire measuring transducer.

The module is functionally compatible with the input modules AIH40-N and N-AIH41. In addition, the inputs are galvanically isolated. Configuration and parameterization are performed only by the AIH40.. entry in the configuration file (e.g GSD).

The analog value of 0…21 mA is digitzed as a number between 0 and 21000. This corresponds to 1 µA per digit.

HART-compatible field devices that communicate directly with the relevant HART controller can be connected to the module. HART multiplexing is thus no longer necessary and a higher data throughput is achieved.

Up to 8 HART variables (max. 4 per channel) can be transmitted via the cyclic user data to the host system. Acyclic data exchange provides advanced communication options such as the diagnostics and parameterization of HART field devices.

The setting of parameters is initiated solely by the host system. The following parameters can be set for each channel:

- Short circuit monitoring
- Wire-break monitoring
- Substitute value strategy
- HART status/measuring range
- HART variables

- Input module for connection of passive and/or active transmitters
- Complete galvanic isolation
- Transmission of HART data
- One HART controller per channel for faster access to HART data

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Type	AIH401-N
ID	6884269
Supply voltage	Via module rack, central power supply module
Power consumption	≤ 3 W
Power dissipation	≤ 1.5 W
Galvanic isolation	Complete galvanic isolation
Number of channels	4

Input circuits	0/4…20 mA
Supply voltage	17.4 VDC at 22 mA
HART impedance	> 240 Ω
Overload capability	> 21 mA
Low level control	< 3.6 mA
Short-circuit	< 25 mA (only with "live zero")
Wire-break	< 2 mA (only with "live zero")

Reference temperature	25 °C
Resolution	1 µA / digit
Measuring accuracy (including linearity, hysteresis and repeatability)	≤ 0.06 % of full scale
Temperature drift	≤ 0.0025 % of full scale/K
Rise time/fall time	≤ 40 ms (10…90 %)
Max. measurement tolerance under EMC influence	≤ 0.06 % of full scale with shielded signal cable ≤ 1 % of full scale with unshielded signal cable

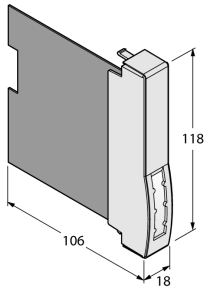
Ex approval acc. to conformity certificate	IECEx TUR 21.0012X
Ex approval acc. to conformity certificate	TÜV 21 ATEX 8643 X
Device designation	Ⓔx II 3 G Ex ec IIC T4 Gc

Displays/Operating elements	
Operational readiness	1 × green/red
State/ Fault	4 × red/yellow

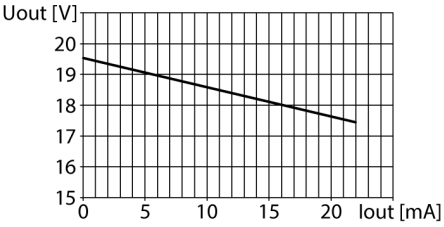
Housing material	Plastic
Connection mode	module, plugged on rack
Protection class	IP20
Ambient temperature	-20…+70 °C
Relative humidity	≤ 93 % at 40 °C acc. to IEC 60068-2-78
Vibration test	Acc. to IEC 60068-2-6
Shock test	Acc. to IEC 60068-2-27
EMC	Acc. to EN 61326-1 Acc. to Namur NE21
MTTF	40 years acc. to SN 29500 (Ed. 99) 40 °C
Dimensions	18 x 118 x 106 mm

Approvals	ATEX IECEx CE

Dimensions



Output Curve



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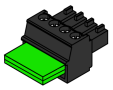
Accessories

Type code	Ident no.		Dimension drawing
excom-RMD1-BK	100020478	The resistor module prevents wire-break detection and short-circuit detection in digital input modules. For analog input modules, overflow and underflow messages are also suppressed.	

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