# Industrial Automation **Devices**

## Data Sheet / Operating Instructions H 6200A





HIMA Paul Hildebrandt GmbH Industrial Automation

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Document designation	Description
HI 800 363 D, Rev. 2.00 (2025)	German original document
HI 800 364 E, Rev. 2.00.00 (2031)	English translation of the German original document

Analog Isolator Table of Contents

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H 6200A Analog Isolator

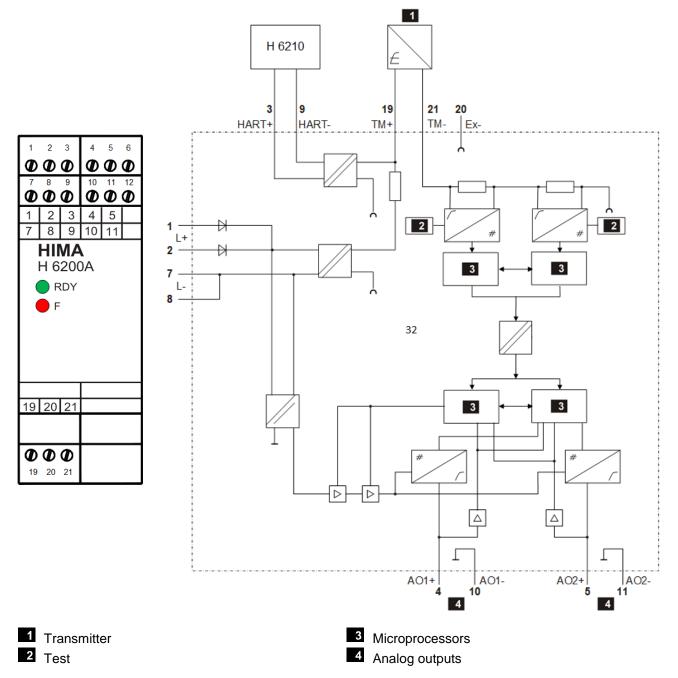
### The Analog Isolator H 6200A

(Ex)i, safety-related, in terminal housing, HART 1)

The device is TÜV-tested for SIL 3 in accordance with IEC 61508, for PL e in accordance with EN 13849, and in accordance with EN 62061.

EC Type Examination Certificate TÜV 04 ATEX 7064 with 1st Supplement.

Type Examination Certificate TÜV 14 ATEX 7558 X (Zone 2).



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<sup>1)</sup> The HART functionality is still available only to users who operate the H 6200A with an existing H 6210.

Current Standards H 6200A

#### **Current Standards**

The device is tested in accordance with:

- IEC 61508 Parts 1 7:2010
- EN ISO 13849-1:2015
- IEC 62061:2015 + Corr.1:2015
- EN 61511 Part 1:2017 + A1:2017
- EN 50156-1:2015
- EN 12067-2:2004
- EN 298:2012
- NFPA 85:2019
- NFPA 86:2019
- NFPA 72:2019
- EN 61131-2:2007
- EN 61326-3-1:2017

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H 6200A 1 Specifications

## 1 Specifications

Product data	
Supply voltage	24 VDC, -15+20 %, r <sub>P</sub> ≤ 5 %
	Min. 20.4 VDC Max. 28.8 VDC
Current concumption	
Current consumption	140 mA at 20 mA transmitter current, 24 V
Power dissipation P <sub>v</sub>	3.5 W (nominal power)
Maximum power dissipation P <sub>vmax</sub>	4.1 W
Transmitter supply:	4-1/4
Supply voltage TM+, TM-	15 V (min.) at 21.5 mA
Our and the second state of the second	16 V (typ.) at 20 mA
Overvoltage detection	< 15 V
Current input:	4 00 4
Rated input current	420 mA
Input current operating range	023 mA
Maximum input current	30 mA
Internal shunt for current measurement	Approx. 50 $\Omega$
Withstand voltage	Max. 5 V
Interference voltage suppression	> 60 dB (common mode 50/60 Hz)
Current outputs 12:	
Nominal output current	420 mA
Output current operating range	0.523 mA
Maximum load	600 Ω
Measured value refresh on the output	10 ms (typ.), 20 ms (max.)
Error at 25 °C	0.1 % (typ.), 0.2 % (max.)
Temperature coefficient	Max. 0.01 %/K
Temperature error at 060 °C	Max. 0.3 %
Safety:	
Safety-related error margin	Max. 1 %
Safe state	Output signal < 0.5 mA
Safety time	Max. 100 ms
HART:	
HART voltage, terminals 3/9	Max. 12 V <sub>PP</sub>
Input resistance, terminals 19/21	$R_X = 420 \Omega$
Input capacity, terminals 19/21	$C_X = 40000\text{pF}$
Electric strength:	<u>'</u>
Between the circuits	1500 V
	500 V
Ambient temperature	0+60 °C at 420 mA
Transport and storage temperature	-40+85 °C
Degree of protection	IP20
Pollution	Pollution degree 2
Weight	200 g
Dimensions (W x H x D)	35 x 99 x 114.5
	1

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1 Specifications H 6200A

#### 1.1 Intended Use in Ex Zones

Use of H 6200A as associated equipment	
Group, category, type of protection	<ul><li></li></ul>
EC Type Examination Certificate	TÜV 04 ATEX 7064
Installation in Ex Zone 2	
Group, category, type of protection	🖾 II 3G Ex nA IIC T4 Gc
Type Examination Certificate	TÜV 14 ATEX 7558 X
IECEx Certificate of Conformity	IECEx TUR 14.0037 X

Marking	Description
<b>€</b> x	Explosion protection marking complying with the relevant directive.
II	Equipment group, for all areas with explosive atmosphere, other than underground mines.
(1)G	Equipment category, for use outside the area with explosive atmosphere, with impact up to zone 0 (gas).
(2)G	Equipment category, for use outside the area with explosive atmosphere, with impact up to zone 1 (gas).
3G	Equipment category, for use in areas where explosive gas atmosphere is unlikely to occur or, if it does occur, will persist for a short period only.
(1)D	Equipment category, for use outside the area with explosive atmosphere, with impact up to zone 20 (dust).
Ex	Explosion protection marking complying with the relevant standard.
ia, ib	Type of protection intrinsic safety.
nA	Type of protection for non-sparking equipment.
nC	Type of protection for sparking, sealed equipment.
IIB	Gas group for explosive gas atmospheres, typical gas is ethylene.
IIC	Gas group for explosive gas atmospheres, typical gas is hydrogen.
T4	Temperature class T4, with a maximum surface temperature of 135 °C.
Gc	Equipment protection level, corresponds to ATEX equipment category 3G.

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### 2 Operating States and Indicators

The device is intended to supply (2-wire/3-wire) transmitters and transmit the measured values as a 4...20 mA signal to 2 safety-related analog outputs (SIL 3).

If a fault occurs, the outputs are switched off.

The operating state is displayed through 2 LEDs:

- RDY (Ready), green.
- F (Fault), red.

Possible operating states are:

LED RDY	LED F	Operating state	Analog outputs
On	On	Initialization after voltage connection.	They are switched off.
On	Off	Normal operation.	They mirror the input value.
On	Off	Overflow.	They drive the maximum current.
On	Off	One output is not in use.	The other output mirrors the input value.
On	Discontinuous blinking	Load exceeded.	Outputs with excessive load are switched off and switched on again after approx. 8 s.
On	Blinking	Hardware fault on one output.	One output is switched off, the other is operating properly.
On	Flashing	Undervoltage of transmitter supply.	They are switched off or drive a current of 21.5 mA or higher.
Off	On	Maximum input current exceeded. Temperature monitoring / system fault.	They are switched off.

#### **Operating States**

Overflow

In case of overcurrent on the input (> 23 mA), the analog outputs drive the maximum output current of 23 mA up to the maximum input current of 30 mA.

One output is not in use (idle)

It is switched off. The output is switched on at intervals of < 10 s, in case a load is connected.

Load exceeded

Excessive load is connected to one or both analog outputs. The output is / outputs are switched off and switched on again after approx. 8 s and for approx. 25 s for test purposes. This ensures automatic switching on of the outputs, after the load has been corrected.

Hardware fault on one output

The faulty output is switched off, the other is operating properly. The device must then be replaced.

Undervoltage of transmitter supply

The transmitter supply voltage falls below 15 V. The analog outputs are switched off, except for input current > 21.5 mA.

Maximum input current exceeded

If the maximum input current of 30 mA is exceeded, the analog outputs are switched off. If the input current is back in the permissible range, the outputs are switched on again.

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Temperature monitoring / system fault

If the internal temperature monitoring has been triggered, the analog outputs are permanently switched off. After the supply voltage is switched off and the device is cooled down, it can be restarted and its analog outputs are switched on again.

If the fault occurs again, a system fault is present or both analog outputs are faulty. The device must then be replaced.

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H 6200A 3 Safety

#### 3 Safety

The PFD and the PFH values for the device have been calculated in accordance with IEC 61508.

For SIL 3, IEC 61508-1 defines a PFD value of 10<sup>-4</sup>...10<sup>-3</sup> and a PFH value of 10<sup>-8</sup>...10<sup>-7</sup> per hour.

The PFD, PFH and SFF values are provided by HIMA upon request. A calculation tool should be used for more detailed calculations.

#### 3.1 Proof Test

The proof test reveals dangerous undetected faults that could otherwise affect the safe function of the plant.

The proof test interval for the device is set to 10 years (offline proof test, see IEC 61508-4, Paragraph 3.8.5):

The execution of the proof test depends on how the system (EUC = equipment under control) is configured, its intrinsic risk potential and the standards applicable to the equipment operation and required for approval by the responsible test authority.

According to IEC 61508 1-7, IEC 61511 1-3, EN 62061 and VDI/VDE 2180, Sheets 1 to 4, the operator of the safety-related systems is responsible for proof testing.

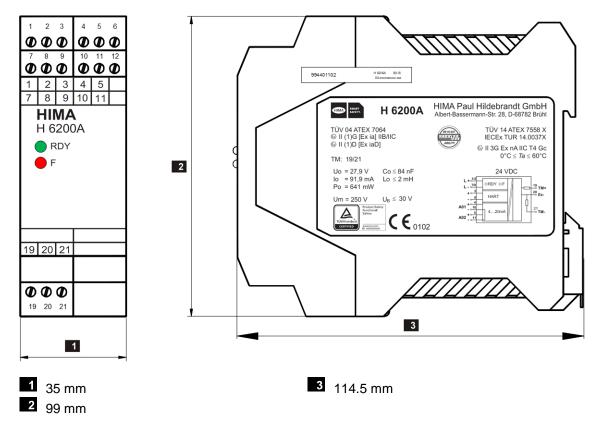
The H 6200 A device can be proof tested by testing the entire safety loop.

In practice, the proof test interval required for the input and output field devices is shorter (e.g., every 6 or 12 months) than that required for the H 6200A device. Testing the entire safety loop together with a field device automatically includes the test of the H 6200A system. No additional proof test is then required for the H 6200A device.

If the proof test of the field devices does not include the H 6200A device, this must be tested at least once every 10 years. The H 6200A device can be proof tested by **restarting** it.

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### 4 Mechanical Design and Dimensions



#### Terminal Assignment for the H 6200A Device

Terminal no.	Designation	Function	
1	L+	Supply voltage 24 V	
2	L+	The inputs are decoupled by internal diodes	
3	HART +	HART connection +	
4	AO1 +	Analog output 1 +	
5	AO2 +	Analog output 2 +	
6		Not used	
7	L -	Reference pole (internally connected)	
8	L -		
9	HART -	HART connection -	
10	AO1 -	Analog output 1 -	
11	AO2 -	Analog output 2 -	
12		Not used	
19	TM +	Transmitter +	
20	Ex-	Ex reference pole	
21	TM -	Transmitter -	

#### **Power Supply**

A power supply unit with protective separation must be used to supply the device with 24 VDC.

The power supply unit must comply with SELV (safety extra low voltage) or PELV (protective extra low voltage) requirements.

The power supply of the device must be externally protected with a fuse ≤ 16 A.

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#### Connectors

The use of shielded cables improves the EMC conditions significantly. To this end, the shield must grounded.

#### NOTICE



Using the wrong terminal plugs may damage the device or the terminal connected to it!

#### NOTICE



The device is grounded through the DIN rail. The DIN rail must therefore be conductively connected to the grounding system of the switch cabinet!

Only personnel with knowledge of ESD protective measures may modify or extend the system, or replace a device.

#### **NOTICE**



Electrostatic discharge can damage the installed semiconductors or integrated circuits.

- Touch a grounded object to discharge any static in your body.
- When performing the work, make sure that the workspace is free of static, and wear a grounding strap.
- If not used, ensure that the device is protected from electrostatic discharge, e.g., by storing it in its packaging.

#### Mounting

Mount the device on a DIN rail as follows:

- Attach the guiding rail located on the rear side of the device to the upper edge of the DIN rail.
- Press the device against the rail until the latch is engaged and the device secured to the rail.

To remove the device from the DIN rail

Insert a flathead screwdriver into the gap between the housing and the latch, using it as a lever to move the latch downward and simultaneously lift the device from the rail.

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#### **Arrangement of the Devices**

#### NOTICE



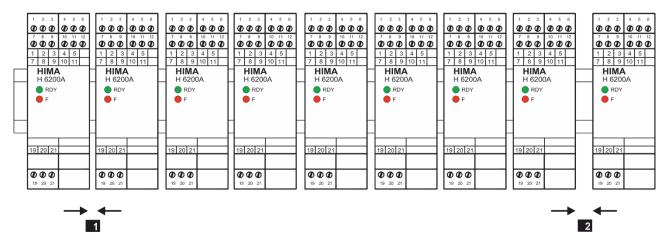
- If the devices are mounted horizontally, a distance of at least 100 mm above and below the device must be maintained to the next row of devices with power dissipation; the same distance must be maintained laterally to the sides of the devices, if they are mounted vertically.
- Do not mount the device above heating equipment or any heat source.

HIMA recommends mounting a group of up to 8 H 6200A devices on a DIN rail, horizontally or vertically. The devices can be arranged adjacently.

The following distances must be maintained:

- Between the devices: at least 5 mm.
- Between the groups: at least 10 mm.

#### **Horizontal Mounting Position**

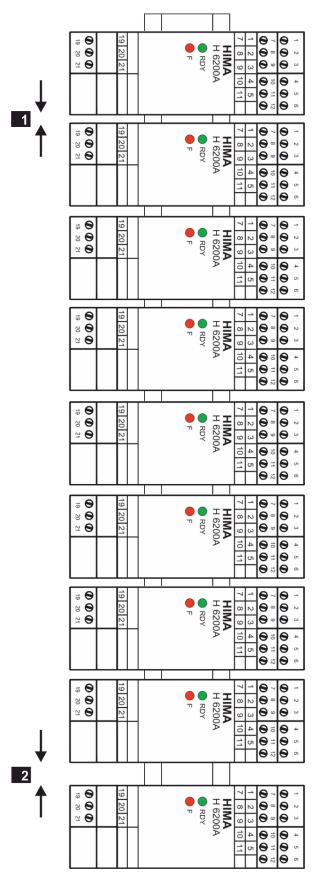


1 Distance between two H 6200A: 5 mm

2 Distance between two groups: 10 mm

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#### **Vertical Mounting Position**



Distance between two H 6200A: 5 mm

2 Distance between two groups: 10 mm

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#### **Distance Between Devices and Groups**

The distance between the devices and the groups must be chosen in accordance with the ambient temperature, see the following table:

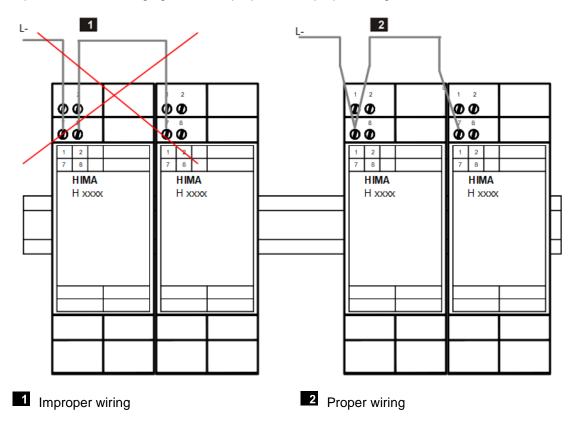
Distance	Ambient temperature		
	Allowed for ≤ 40 °C Required for > 40 °C		
Between the devices	0 mm	5 mm	
Between the group	50 mm	10 mm	
		Recommended	

The distances can be subsequently set to the recommended values.

#### **Wiring Instructions**

Make sure that no other device is disconnected from the power supply when removing the pluggable screw terminals.

This may occur in case of improper wiring, e.g., if the circuit is only closed in the device to be replaced. The following figure shows proper and improper wiring.

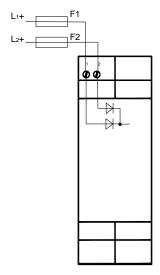


If a device is defective, remove the pluggable screw terminals, replace the device and plug in again the screw terminals.

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#### **Increasing Availability**

The supply voltage L+ of the H 6200A can be arranged redundantly and decoupled using internal diodes. A short circuit in one supply line does not affect the second supply line.



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#### **5** Operating Instructions

#### 5.1 Use

The device can be used to supply (2-wire/3-wire) transmitters and to trasfer the measured values as a 4...20 mA signal to 2 safety-related analog outputs (SIL 3). The transmitters may be installed in areas with explosive atmosphere (zone 0 and higher).

#### NOTICE



- If so-called hybrid mixtures are present in the area with explosive atmosphere, use of this intrinsically safe circuit is not permitted. If the occurrence of hybrid mixtures is to be expected, separate consideration of each individual case is required.
- No external voltages must be connected to the outputs (AO1, AO2).

  The device may not be used as associated equipment if it has been previously operated in a general electrical plant.
- Additionally, only the applications described in this document are allowed.

The H 6200A device is to be integrated into the regular inspections in accordance with Directive 1999/92/EC.

#### 5.2 Electrical Data Concerning Intrinsic Safety

For these specifications, refer to the Annex to the EC Type Examination Certificate.

The safety-related maximum voltage U<sub>m</sub> is 250 V.

#### 5.3 Start-Up

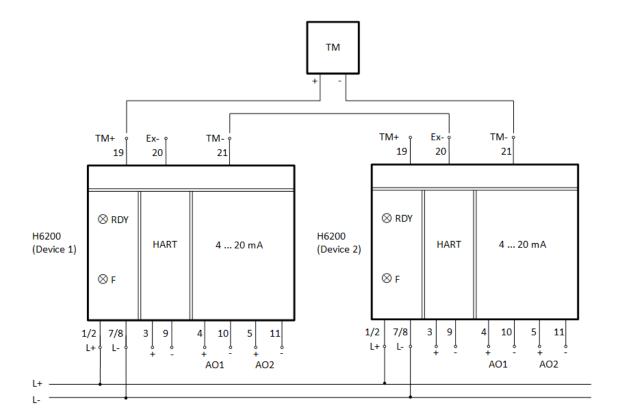
Prior to starting up the device for the first time, an explosion protection expert must ensure proper installation, paying particular attention to the connections of the supply voltage and intrinsically safe circuits.

#### **Installing the Associated Equipment**

- The device must be mounted as associated equipment outside the area with explosive atmosphere.
- The electrical device, including its connected components, must be installed to ensure compliance with the requirements for degree of protection IP20 or higher in accordance with EN 60529:1991 + A1:2000.
- A distance of ≥ 50 mm (arcing distance) must be ensured between external, intrinsically safe and non-intrinsically safe terminals.
- A distance of ≥ 6 mm (arcing distance) must be ensured between the external terminals of adjacent, intrinsically safe circuits.
- A distance of ≥ 3 mm (arcing distance) must be ensured between the external terminals of an intrinsically safe circuit and PE or PA.

Two measuring circuits of two devices may be connected in series (see the following figure). In such cases, the maximum inductive and capacitive values must not be exceeded, see the EC Type Examination Certificate.

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- Intrinsically safe and non-intrinsically safe lines must be separated, or the intrinsically safe lines must be additionally insulated.
- Intrinsically safe lines must be marked, e.g., using a light blue color (RAL 5015) for the insulation.

The wires in use must comply with the following insulation test voltages:

- Intrinsically safe wires ≥ 1000 VAC.
- Non-intrinsically safe wires ≥ 1500 VAC.

If fine wires are used, suitable measures must be implemented to prevent the wire ends from fanning out. The terminals must be suitable for fastening the cross-sections of the wires in use.

#### Installation in Zone 2

The following additional points must be observed for installing the device in zone 2:

- The device must be supplied by a SELV or PELV power supply unit.
- The device may only be used in environments with maximum pollution degree II in accordance with IEC 60664-1.
- To ensure compliance with category 3G, the device must be installed in an enclosure that fulfils the requirements of the EN/IEC 60079-15 with degree of protection IP54 or better.
- The enclosure must be able to safely handle the maximum power dissipation of up to 4.5 W.
- Work is only permitted in the de-energized state. Exception: If a potentially explosive atmosphere has been precluded, work can also be performed when the device is under voltage.

To connect the intrinsically safe circuit, take the TÜV 04 ATEX 7064 EC Type Examination Certificate into account.

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#### Installation in Zone 20, 21 or 22

The following additional points must be observed for installing the device in zone 20, 21 or 22:

- The device may only be operated in zones with explosive dust if the device is installed in a suitable enclosure.
- This enclosure requires degree of protection IP54 or, in case of moist, conductive dust, degree of protection IP6X. The operator must perform the necessary measurements and tests in accordance with EN 60079-31.

## Adequate knowledge of the relevant standards for installation in zone 2 and zone 22 is required.

The relevant standards must be observed, in particular:

EN 60079-0:2012 General requirements, gas and dust

(DIN EN 60079-0 VDE 0170-1:2014-06)

EN 60079-11:2012 Intrinsic safety "i"

(DIN EN 60079-11 VDE 0170-7:2012-06)

EN 60079-15:2010 Zone 2, type of protection "n"

(DIN EN 60079-15 VDE 0170-16:2011-02)

EN 60079-31:2010/2014 Zone 2x, dust ignition protection "t"

(DIN EN 60079-15 VDE 0170-16:2011-02)

EN 60079-14:2014 Standard for operators, gas and dust

(DIN EN 60079-14 VDE 0165-1:2014-10)

To operate the device in zone C in accordance with IEC 61131-2 Programmable Controllers, connect the H 7013 filter ahead of the power supply to increase immunity to interference (surges).

#### 5.4 Maintenance

If failures occur, replace the defective device with a device of the same type or with an approved replacement model.

#### NOTICE



Only the manufacturer may repair the device.

#### **NOTICE**



Do not open the terminal housing of the H 6200A if the device is under voltage.

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H 6200A **Appendix: Certificates** 

#### **Appendix: Certificates**





#### **TÜV Rheinland Group**

#### EC-TYPE-EXAMINATION CERTIFICATE (1)

(Translation)

(2)Equipment and Protective Systems intended for Use in Potentially Explosive Atmosphere - Directive 94/9/EC

(3) EC-Type-Examination Certificate Number



#### **TÜV 04 ATEX 7064**

(4) Gerät: H 6200 / HART-Trennverstärker Si, (Ex)i (5) Hersteller: HIMA Paul Hildebrandt GmbH + Co KG

D-68782 Brühl Anschrift: Albert-Bassermann-Straße 28

- This equipment and any acceptable variation thereto are specified in the schedule to this certificate (7) and the documents referred to.
- The TÜV CERT-Zertifizierungsstelle for ex-protected products of TÜV Industrie Service GmbH, TÜV (8) Rheinland Group, notified body No. 0035 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies this equipment has been found to comply with the Essential Health and Safety Requierements relating to the design and construction of equipment and protective systems intended for use in potentially eyplosive atmosphere, given in Annex II to the Directive. The examination and test results are recorded in the confidential report 194 /Ex064.00/04
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 50014: 1997 + A1: 1999 + A2: 1999 EN 50284: 1999

EN 50020: 2002

prEN 61241-0: 2002

31H/171/CDV (IEC 61241-11)

- (10)IF the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.
- This EC-type-examination Certificate relates only to the design and construction of the specified (11)equipment in accordance with Directive 94/9/EC. Further requierements of this Directive apply to the manufacture and supply of this equipment.
- The marking of the equipment shall include the following:

😢 II (1) GD [EEx ia] IIB/IIC

[EEx iaD]

otified TÜV CERT-Zertifizierungsstelle für Explosionsschutz

Köln, 31.08.04

Dipl.-Ing. K. Wettingfeld



DAR-Reg.-Nr.: ZLS-ZE-311/02

The Zentralstelle der Länder für Sicherheitstechnik (ZLS) – represented in the Deutschen Akkreditierungsrat – herewith confirms, that the TÜV CERT-Zertifizierungsstelle for equipment and protective systems intended for use in potentially explosive atmosphere in accordance with Directive 94/9/EC of the TÜV Industrie Service GmbH, TÜV Rheinland Goup, Am Grauen Stein, 51105 Köln, complies with the requierements of § 9 Abs. 2 Gerätesicherheitsgesetz as well as the standard DIN EN 45 011 and has the competence, to certify explosion protected exquipment in the scope of the Directive 94/9/EC according to the requirements of the notification of accreditation No. 5 ZLS/3926-1/122/03

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**TÜV Rheinland Group** 

(13) Annex to

## (14) EC Type Examination Certificate TÜV 04 Atex 7064

#### (15) Equipment description

The electronic device "H 6200 / HART isolating amplifier Si, (Ex)I" is a single isolating amplifier with a transmitter circuit (transmitter feed circuit and test circuit). It is designed as a terminal module.

The isolating amplifier transmits an analogue 4 .. 20 mA test signal from the intrinsically safe transmitter circuit to the intrinsically safe output circuits. The intrinsically safe transmitter circuit supplies certified loads (eg pressure transmitters) installed in the potentially explosive area. The isolating amplifier also allows the bi-directional transmission of an analogue HART signal between the intrinsically safe transmitter circuit and the intrinsically safe HART circuit.

As only the transmitter circuit is intrinsically safe, the terminal module must be erected outside of the potentially explosive area. The transmitter circuit is safely isolated from the other electric circuits for a rated voltage with a peak of up to 375 V.

#### **Parameters**

Supply voltage:  $U_B$  24 V DC (20 ... 30 V), approx. 4.1 W

 $U_{B (max)} \leq 30 \text{ V}$ 

Connection: 1, 2 (L+); 7, 8 (L-)  $U_m \le 250 \text{ VAC } / 125 \text{ VDC}$ 

Ambient temperature range: -25 °C to +60 °C

This EC Type Test Certificate may only be circulated without alterations.

Extracts or alterations must be approved by TÛV CERT-Zertifizierungsstelle of TÜV Industrie Service GmbH,
TÜV Rheinland Group.
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**TÜV Rheinland Group** 

#### Intrinsically safe output circuits (maximum):

H 6200	3-wire transmitter (terminals 19, 20 and 21) (feed and test circuit)		2-wire transmitter (terminals 19 and 21) (feed and test circuit)		Test circuit (terminals 20 and 21)	
	U <sub>O1</sub>	= 27.9 V	U <sub>O1</sub>	= 27.9 V	U <sub>O2</sub>	= 6.0 V
	I <sub>O1</sub>	= 107.7 mA	I <sub>02</sub>	= 91.9 mA	I <sub>O3</sub>	= 2.25 mA
	P <sub>O1</sub>	= 752 mW	P <sub>O2</sub>	= 641 mW	P <sub>O3</sub>	= 3.4 mW
Character- istic:	Linear		Linear		Linear	

The following maximum external inductances and capacities may be connected:

#### Type of protection: [EEx ia] IIB or[EEx iaD]:

3-wire transmitter		2-wire transmitter		Test circuit	
Lo	Co	Lo Co Lo		Lo	Co
9 mH	9 mH 654 nF		654 nF	H 1	1000 μF

#### Type of protection: [EEx ia] IIC:

3-wire transmitter		2-wire transmitter		Test circuit	
Lo	Co	Lo	Co	Lo Co	
1.2 mH	84 nF	2 mH	84 nF	H 1	40 μF

If concentrated external inductances and/or capacities are present, the following may only be connected:

#### Type of protection: [EEx ia] IIB or [EEx iaD]:

3-wire transmitter		2-wire transmitter		Test circuit	
Lo	Co	Lo	Co	Lo	Co
9 mH	240 nF	10 mH	250 nF	100 mH	7.1 µF

#### Type of protection: [EEx ia] IIC:

3-wire transmitter		2-wire transmitter		Test circuit	
Lo	Co	Lo	Co	Lo	Co
0.16 mH	83 nF	1 mH	49 nF	100 mH	1.5 µF

This EC Type Test Certificate may only be circulated without alterations.

Extracts or alterations must be approved by TÜV CERT-Zertifizierungsstelle of TÜV Industrie Service GmbH,

TÜV Rheinland Group.

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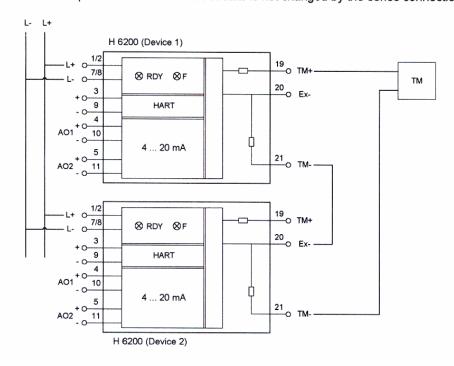




**TÜV Rheinland Group** 

If two test circuits are connected in series as shown below, the electric parameters for the 2wire transmitter apply.

The level of protection of the electric circuits is not changed by the series connection.



- (16)Test report: 194 / Ex 064.00 / 04
- (17)Special conditions for safe use

None

(18)Essential safety and health requirements

are covered by the previously cited standards.

TÜV CERT-Zertifizierungsstelle für Explosionsschutz

Cologne, 31.08.2004

Dipl.-Ing. Klaus Wettingfeld

91712 This EC Type Test Certificate may only be circulated without alterations.

Extracts or alterations must be approved by TÜV CERT-Zertifizierungsstelle of TÜV Industrie Service GmbH,

TÜV Rheinland Group.

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## 1<sup>st</sup> Supplement

acc. to directive 94/9/EC, Appendix III, No 6

## to the EC-Type Examination Certificate TÜV 04 ATEX 7064

(Translation)



Equipment:

H 6200A / HART - Trennschaltverstärker Si, (Ex)i

Manufacturer:

HIMA Paul Hildebrandt GmbH + Co KG

Adress:

Albert - Bassermann - Strasse 28

D - 68782 Brühl

#### Description of supplements and modifications

The electronic device "H 6200A/ HART isolating amplifier Si, (Ex)I" is a single isolating amplifier with a transmitter circuit (transmitter feed circuit and test circuit). It is designed as a terminal module

This 1 $^{\rm st}$  supplement is based on the original ec-type-examination certificate TÜV 04 ATEX 7064

The modifications compared to the basis certificate are as follows:

- Use of alternative electronic components, acc. to the new documentation.
- The typ name H6200 has been changed to H6200A.
- The H6200A had been adapted to the state of the art acc. to the current standards. The
  originally used harmonised standards valid for the basis certificate have been revised.

This 1<sup>th</sup> supplement to the ec- type-examination certificate without signature and official stamp shall not be valid. The certificate may be circulated only without alteration. Extracts or alterations are subject to a p

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The relevant standards for this 1<sup>st</sup> supplement have been examined by the notified body and are listed below in the table.

sta	andard			
Original certificate	1 <sup>st</sup> supplement	Changes in the standard which concerns the device		
EN 50014: 1997 + A1: 1999 + A2: 1999	EN 60079-0:2006	marking		
EN 50020: 2002	EN 60079-11:2007	Measuring of the transit energy (appendix E)		
prEN 61241-0: 2002	EN 61241-0:2006	none		
EN 50284: 1999	EN 60079-26:2007	none		
31H/171/CDV (IEC 61241-11	EN 61241-11:2006	none		

#### Technical Data

The technical datas of the original certificate remain valid without change.

Test report: 194/Ex 064.01/08

Special Conditions for the safe use The Certificate TÜV 04 ATEX 7064 must be observed.

Basic Safety and Health Requirements

covered by afore mentioned standards

TÜV-CERT-Zertifizierungsstelle für Explosionsschutz

Köln, 2008-04-25



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This 1<sup>th</sup> supplement to the ec-type-examination certificate without signature and official stamp shall not be valid. The certificate may be circulated only without alteration. Extracts or alterations are subject to approval by TÜV-Cert-Zertifizierungsstelle of TÜV Rheinland Industrie Service GmbH In case of dispute, the German text shall prevail

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