## Features

- 1-channel isolated barrier
- 24 V DC supply (loop powered)
- Output 45 mA at 12 V DC
- Up to SIL 3 acc. to IEC 61508

## Function

This isolated barrier is used for intrinsic safety applications. It supplies power to solenoids, LEDs, and audible alarms located in a hazardous area.

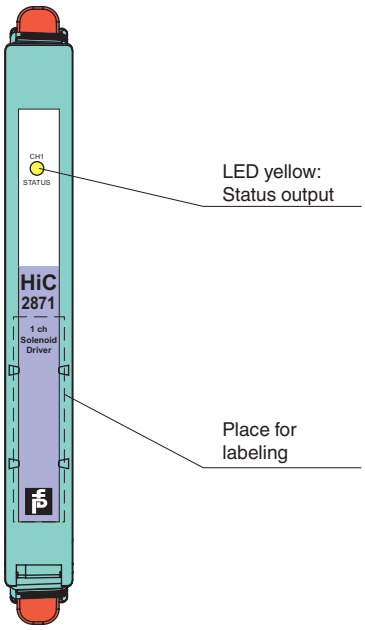
It is loop powered, so the available energy at the output is received from the input signal. The output signal has a resistive characteristic. As a result the output voltage and current are dependent on the load and the input voltage.

At full load, 12 V at 45 mA is available for the hazardous area application.

This module mounts on a HiC Termination Board.

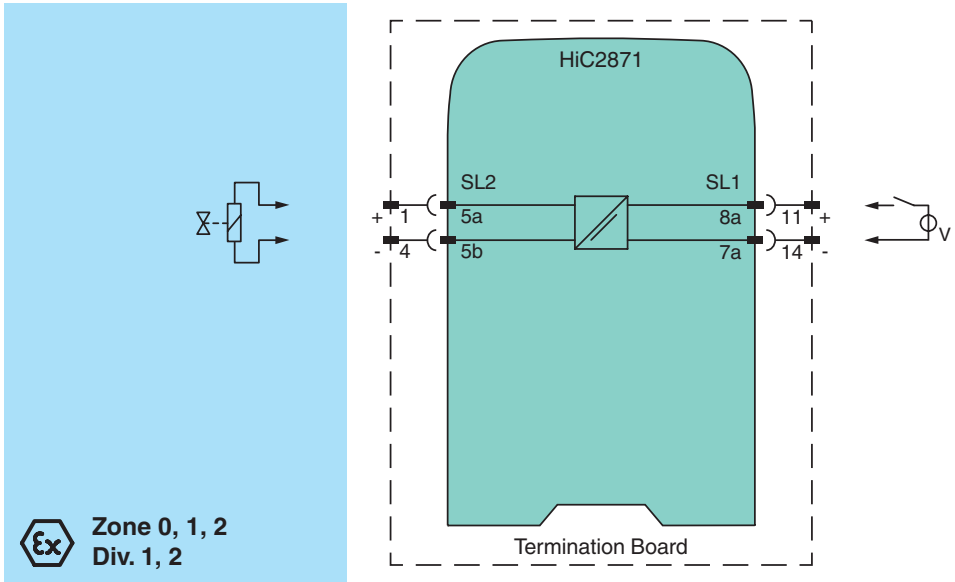
## Assembly

**Front view**




SIL 3

## Connection

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| | | |
|---|---|---|
| **General specifications** | | |
| Signal type | | Digital Output |
| **Functional safety related parameters** | | |
| Safety Integrity Level (SIL) | | SIL 3 |
| **Supply** | | |
| Connection | | loop powered |
| Rated voltage | $U_r$ | 19 ... 30 V DC loop powered |
| Power dissipation | | < 1 W |
| **Input** | | |
| Connection side | | control side |
| Connection | | SL1: 8a(+), 7a(-) |
| Rated voltage | $U_r$ | 19 ... 30 V loop powered |
| Current | | ≤ 72 mA at $U_i$ = 19 V, ≤ 50 mA at $U_i$ = 30 V with 265 Ω output load<br>≤ 45 mA at $U_i$ = 19 V, ≤ 31 mA at $U_i$ = 30 V with shorted output<br>≤ 14 mA at $U_i$ = 19 V, ≤ 11 mA at $U_i$ = 30 V no load at output |
| Inrush current | | ≤ 200 mA after 100 µs |
| **Output** | | |
| Connection side | | field side |
| Connection | | SL2: 5a(+), 5b(-) |
| Internal resistor | $R_i$ | ≤ 238 Ω |
| Current | $I_e$ | ≤ 45 mA |
| Voltage | $U_e$ | ≥ 12 V |
| Open loop voltage | $U_s$ | ≥ 22.7 V |
| Output signal | | These values are valid for the rated operating voltage 19 ... 30 V DC. |
| Energized/De-energized delay | | single operation: typ. 1.7 ms/50 µs; periodical: typ. 5 µs/50 µs |
| **Indicators/settings** | | |
| Display elements | | LED |
| Labeling | | space for labeling at the front |
| **Directive conformity** | | |
| Electromagnetic compatibility | | |
| Directive 2014/30/EU | | EN 61326-1:2013 (industrial locations) |
| **Conformity** | | |
| Electromagnetic compatibility | | NE 21:2006<br>For further information see system description. |
| Degree of protection | | IEC 60529:2001 |
| Protection against electrical shock | | EN 61010-1:2010 |
| **Ambient conditions** | | |
| Ambient temperature | | -20 ... 60 °C (-4 ... 140 °F) |
| **Mechanical specifications** | | |
| Degree of protection | | IP20 |
| Mass | | approx. 100 g |
| Dimensions | | 12.5 x 128 x 106 mm (0.5 x 5.1 x 4.2 inch) |
| Mounting | | on Termination Board |
| Coding | | pin 1 and 4 trimmed<br>For further information see system description. |
| **Data for application in connection with hazardous areas** | | |
| EU-Type Examination Certificate | | BASEEFA 06 ATEX 0171X |
| Marking | | ⟨Ex⟩ II (1)G [Ex ia Ga] IIC, II (1)D [Ex ia Da] IIIC, I (M1) [Ex ia Ma] I (-20 °C ≤ $T_{amb}$ ≤ 60 °C) |
| Output | | [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I |
| Voltage | $U_o$ | 25.2 V |
| Current | $I_o$ | 110 mA |
| Power | $P_o$ | 693 mW |
| Type of protection [EEx ia] | | |
| Input | | |
| Maximum safe voltage | $U_m$ | 250 V (Attention! The rated voltage can be lower.) |
| Certificate | | PF 08 CERT 1048 X |
| Marking | | ⟨Ex⟩ II 3G Ex nA IIC T4 Gc |
| Galvanic isolation | | |
| Input/Output | | safe electrical isolation acc. to IEC/EN 60079-11, voltage peak value 375 V |
| Directive conformity | | |
| Directive 2014/34/EU | | EN 60079-0:2012+A11:2013 , EN 60079-11:2012 , EN 60079-15:2010 |
| **International approvals** | | |
| FM approval | | |

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|---|---|
| Control drawing | 16-534FM-12 (cFMus) |
| IECEx approval | IECEx BAS 06.0031X |
| Approved for | [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I |
| **General information** | |
| Supplementary information | Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com. |

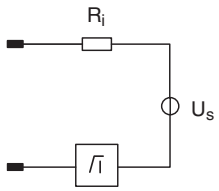
## Configuration

No user configuration available for this device.

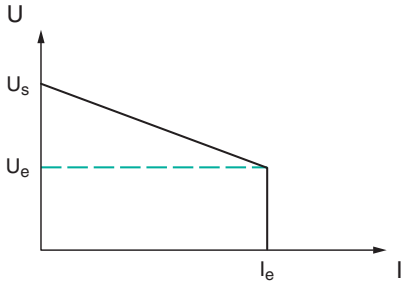
*The pins for this device are trimmed to polarize it according to its safety parameter. Do not change! For further information see system description.*

## Output characteristics

### Output circuit diagram




### Output characteristic

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