

# HART<sup>®</sup> TRANSPARENT REPEATER



- 3- / 5-port 3.75 kVAC galvanic isolation
- Low response time
- 2-wire supply > 17 V
- 1- or 2-channel version
- Universal AC or DC supply



## Application:

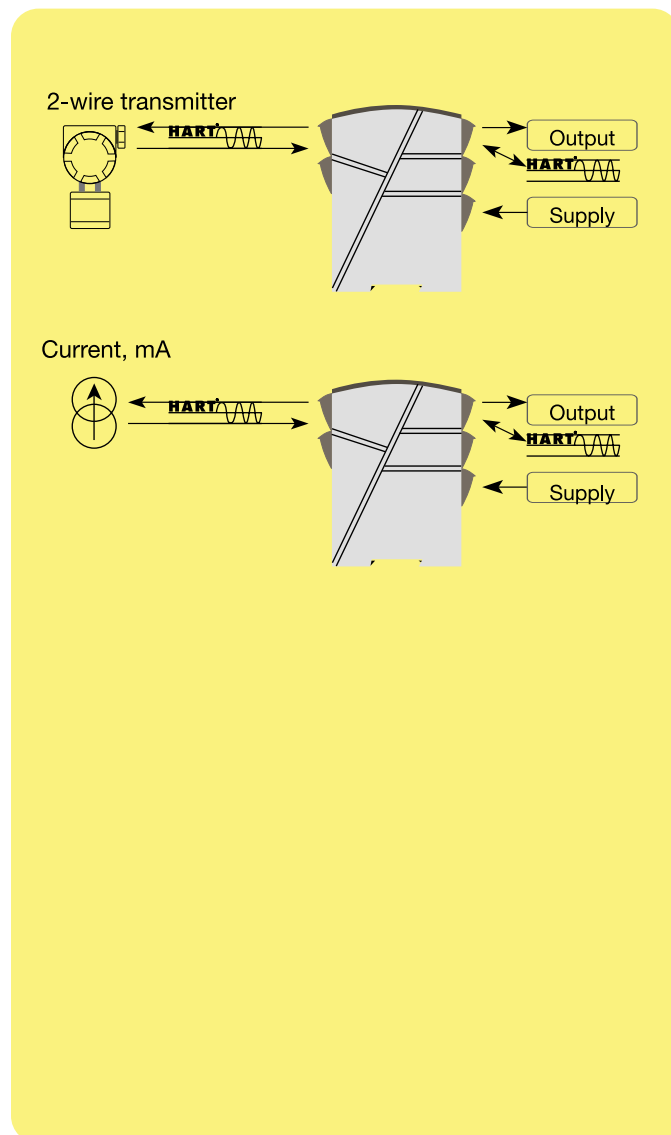
- Power supply and signal isolator with 2-way HART<sup>®</sup> communication for 2-wire transmitters.
- Signal isolator with 2-way HART<sup>®</sup> communication for supplied current transmitters.
- Signal isolator with low response time on analogue current signals.

## Technical characteristics:

- PR5106A primarily processes current signals of 4...20 mA.
- PR5106A is based on microprocessor technology for gain and offset. The analogue signal is transmitted at a response time of less than 25 ms.
- Inputs, outputs, and supply are floating and galvanically separated.
- The output can be connected either as an active current transmitter or as a 2-wire transmitter.

## Mounting / installation:

- Mounted vertically or horizontally on a DIN rail. As the modules can be mounted without distance between neighbouring units, up to 84 channels can be mounted per metre.

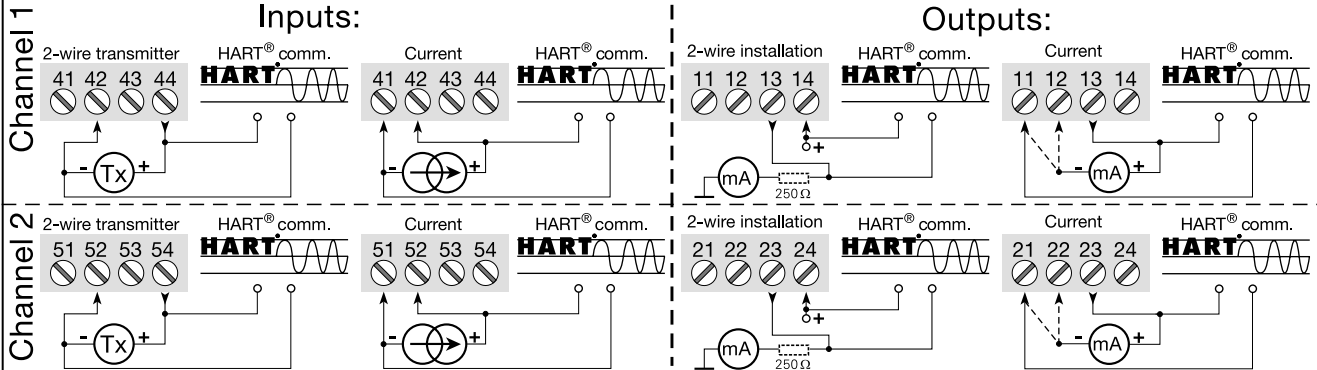
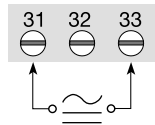


Order : 5106A

Type	Input	Output	Channels
5106A	4...20 mA : B	4...20 mA : 2 20...4 mA : 9	Single : A Double : B

**Connexions:**

Supply:



**Electrical specifications:**

**Specifications range:**

-20 to +60°C

**Common specifications:**

- Supply voltage universal ..... 24...230 VAC ±10%  
50...60 Hz
- Internal consumption ..... ≤ 2 W (2 channels)
- Max. consumption ..... ≤ 3 W (2 channels)
- Fuse ..... 400 mA SB / 250 VAC
- Isolation voltage, test / operation ..... 3.75 kVAC / 250 VAC
- Signal / noise ratio ..... Min. 60 dB (0...100 kHz)
- Response time (0...90%, 100...10%) . < 25 ms
- Calibration temperature ..... 20...28°C
- Effect of supply voltage change (24...250 V) ..... < ±10 µA
- Accuracy, the greater of general and basic values:

General values		
Input type	Absolute accuracy	Temperature coefficient
mA	≤ ±0.1% of span	≤ ±0.01% of span / °C

Basic values		
Input type	Basic accuracy	Temperature coefficient
mA	≤ ±16 µA	≤ ±1.6 µA/°C

EMC immunity influence ..... < ±0.5% of span
Extended EMC immunity: NAMUR NE 21, A criterion, burst ..... < ±1% of span

- Auxiliary supply:
- 2-wire supply ..... 25...17 VDC / 0...20 mA
- Max. wire size ..... 1 x 2.5 mm<sup>2</sup>
- Screw terminal torsion ..... 0.5 Nm
- Relative humidity ..... < 95% RH (non-cond.)
- Dimensions (HxVxD) ..... 109 x 23.5 x 130 mm
- DIN rail type ..... DIN 46277
- Tightness (enclosure / terminals) ..... IP50 / IP20
- Weight ..... 246 g

**Current input:**

- Measurement range ..... 4...20 mA
- Min. measurement range (span) ..... 16 mA
- Input resistance:
- Supplied unit ..... Nom. 10 Ω
- Non-supplied unit ..... Rshunt = ∞, Vdrop < 4 V

**Current output and 2-wire 4...20 mA output:**

- Signal range (span) ..... 4...20 mA
- Min. signal range (span) ..... 16 mA
- Load (max.) ..... 20 mA / 600 Ω / 12 VDC
- Load stability ..... ≤ 0.01% of span / 100 Ω
- Current limit ..... ≤ 28 mA
- Ripple on HART® communication ..... < 3 mVRMS
- Max. external 2-wire supply ..... 29 VDC
- Effect of external 2-wire supply voltage change ..... < 0.005% of span / V

**Observed authority requirements: Standard:**

- EMC 89/336/EEC, Emission ..... EN 50 081-1, EN 50 081-2
- Immunity ..... EN 50 082-2, EN 50 082-1
- Emission and immunity ..... EN 61 326
- LVD 73/23/EEC ..... EN 61 010-1
- PELV/SELV ..... IEC 364-4-41 and EN 60 742

Of span = of the presently selected range