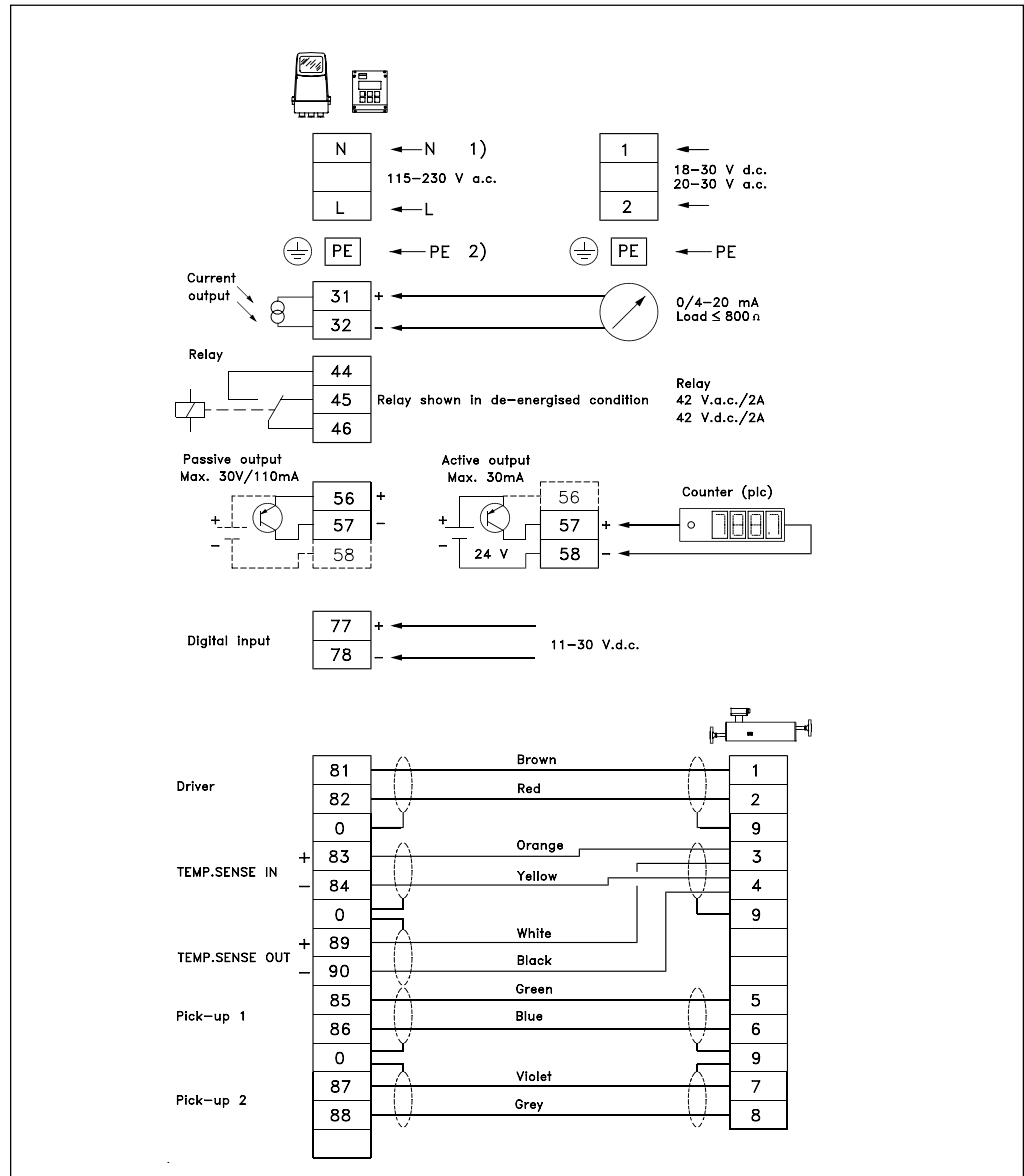


6. Electrical connection

6.1 Signal Transmitter
IP 67 and 19"
(terminal board
083H4260,
083H4253 &
083H4255)



Electrical connect.

Installation

⚠ 1) Mains supply 115 to 230 V a.c. from building installation Class II. A switch or circuit-breaker (max. 15 A) shall be included in the building installation. It must be in close proximity to the equipment and within easy reach of the OPERATOR, and it shall be marked as the disconnecting device for the equipment.

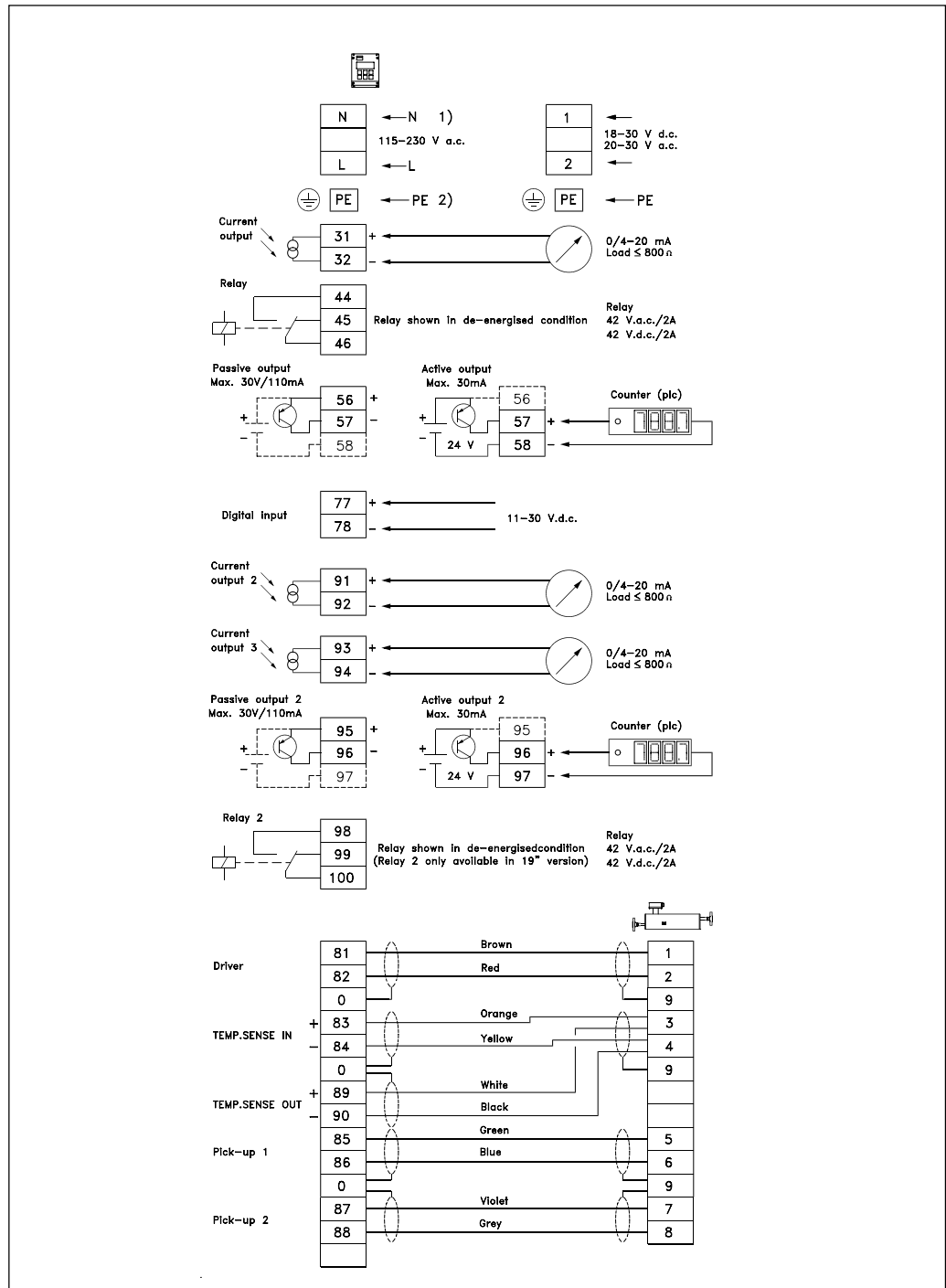
⊕ 2) Protective conductor terminal. Required cable min. AGW16 or 1.5 □ Cu. The insulation between the connected mains supply and 24 V a.c./d.c. supply for the flowmeters, models 24 V a.c./d.c. shall at least be rated with double or reinforced insulation at mains voltage.

For field wiring installation **National Installation Code** shall be met of the country, where the flowmeters are installed.

Digital output

If the internal resistance of the loads exceeds 10K ohms, it is recommended to connect an external 10K ohms load resistor in parallel to the load.

6.2 Transmitter with extended output's (only 19" version), terminal board 083H4253 & 083H4255



Electrical con.

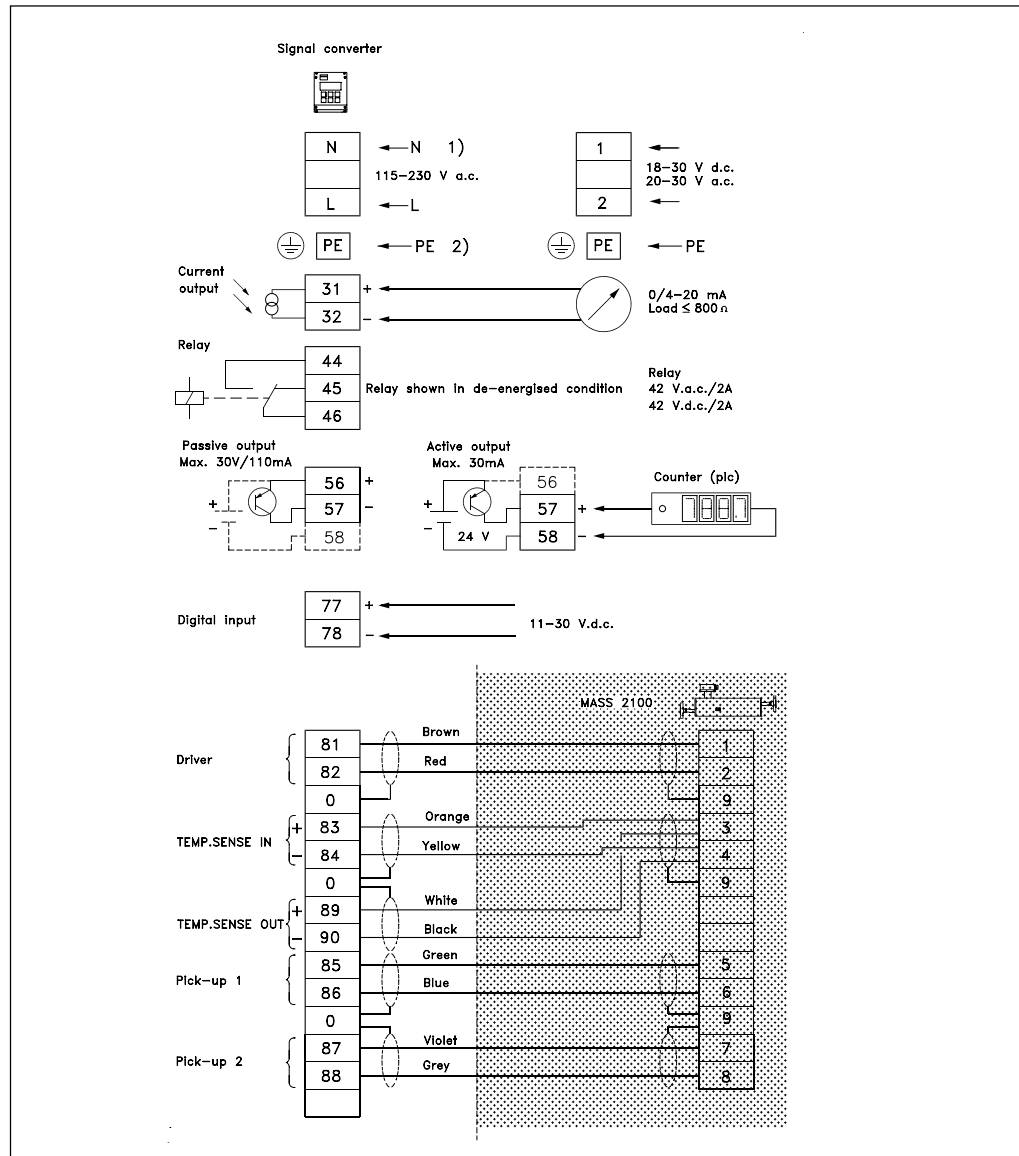
Installation

- ⚠ 1) Mains supply 115 to 230 V a.c. from building installation Class II. A switch or circuit-breaker (max. 15 A) shall be included in the building installation. It must be in close proximity to the equipment and within easy reach of the OPERATOR, and it shall be marked as the disconnecting device for the equipment.
- ⊕ 2) Protective conductor terminal. Required cable min. AGW16 or 1.5[□] Cu. The insulation between the connected mains supply and 24 V a.c./d.c. supply for the flowmeters, models 24 V a.c./d.c. shall at least be rated with double or reinforced insulation at mains voltage.
For field wiring installation **National Installation Code** shall be met of the country, where the flowmeters are installed.

Digital output

If the internal resistance of the loads exceeds 10K ohms, connect an external 10K ohm load resistor in parallel to the load.

**6.3 Signal Transmitter
19" Ex-version**



Electrical connect.

Installation

The Transmitter must be installed in the safe area where as the sensor can be installed in the hazardous area.

All cables and installations in hazardous areas must conform to the national code of practise.

The cables from the sensor must be kept apart from all other cables on the connection board. Maximum cable length is 500 m.

If the converter becomes defective, the converter can only be serviced at Fluid Components Intl.

1) Mains supply 115 to 230 V a.c. from building installation Class II. A switch or circuit-breaker shall be included in the building installation. It must be in close proximity to the equipment and within easy reach of the operator, and it shall be marked as the disconnecting device for the equipment.

2) Protective earth connected to PE terminal. Required cable min. AGW16 or 1.5 mm² Cu. Mains voltage terminals must be out of reach for operator to avoid any hazards.

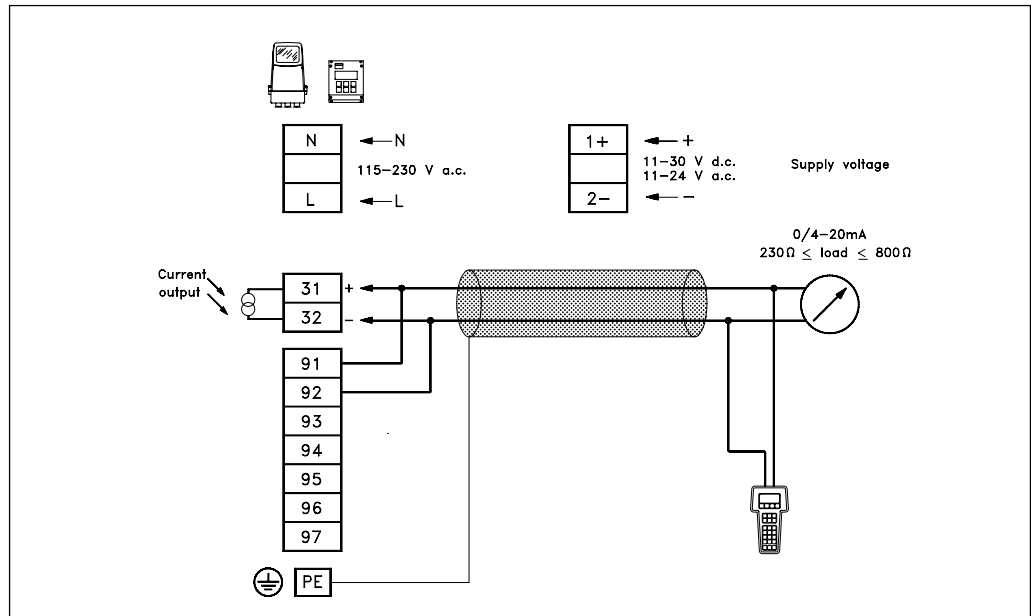
Digital output

If the internal resistance of the loads exceeds 10K ohms, connect an external 10K ohm load resistor in parallel to the load.

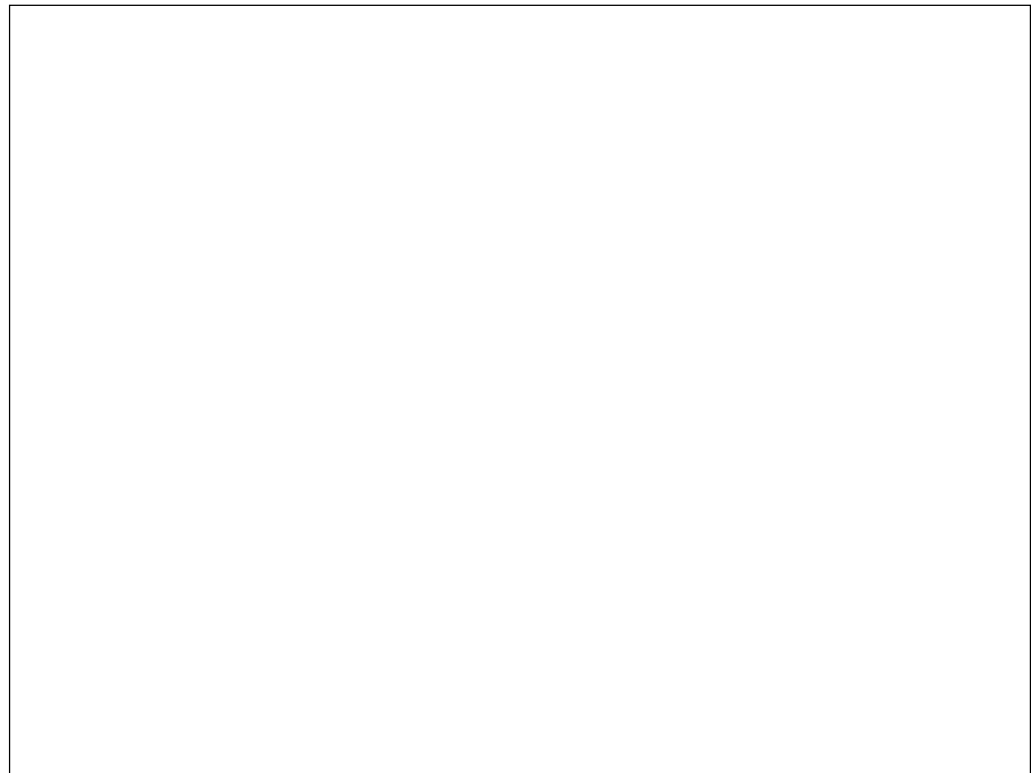
6.4 Connections of add-on modules

When the add-on module has been installed, the electrical connections are available on terminal rows 91-97 no matter the version. The correct electrical connection can be seen in the documentation supplied with the add-on module.

6.5 HART® Communication

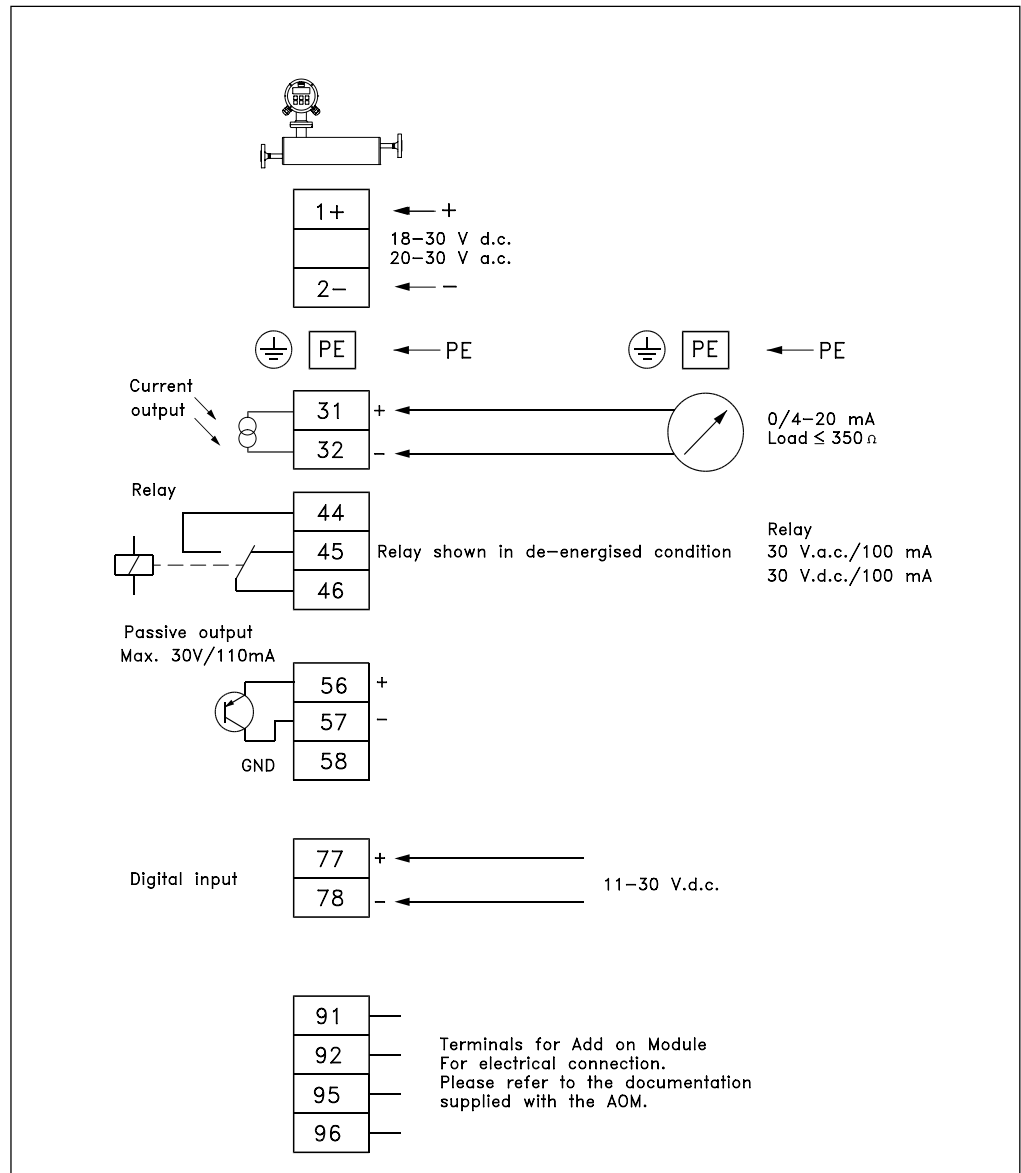


6.6 PROFIBUSPA



Electrical con.

6.7 Transmitter Compact Ex-d



Electrical connect.

Electrical connections are made through the front of the signal converter, in the terminal housing. This housing is accessed by removing the front lid as described in Chapter 5.

The cover is retained via a wire. The terminal housing is equipped with 1 PG 13.5 EEx e gland and 1 PG 13.5 EEX "i" gland.

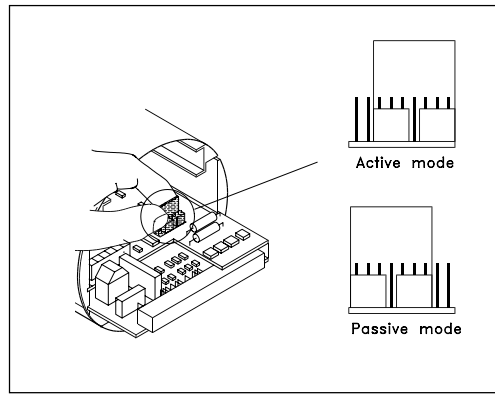
The mains cable is fed through the black PG gland (black indicates increased safety "e") located in the left-hand side as viewed from the front.

The outputs are fed through the blue PG gland (the colour blue indicates intrinsically-safe circuit "i") located on the right-hand side. According to the Ex document issued, use of other glands is permitted provided that these are as a minimum EEx-approved in category "e".

Important

The power supply terminals shall be from a safety isolating transformer. Maximal cable core is 2.5 □.

6.8 Setting of active or passive current output mode



The current output of the transmitter can operate in either active or passive mode to make electrical connection as easy as possible. The default current output in the transmitter is set to passive mode and must be looped powered.

If an active mode is required, a jumper on the transmitter PCB must be put in active position. This is done by taking out the transmitter electronics, follow the instructions in section 5.2.11 or 5.2.12. Jumper position is shown below.

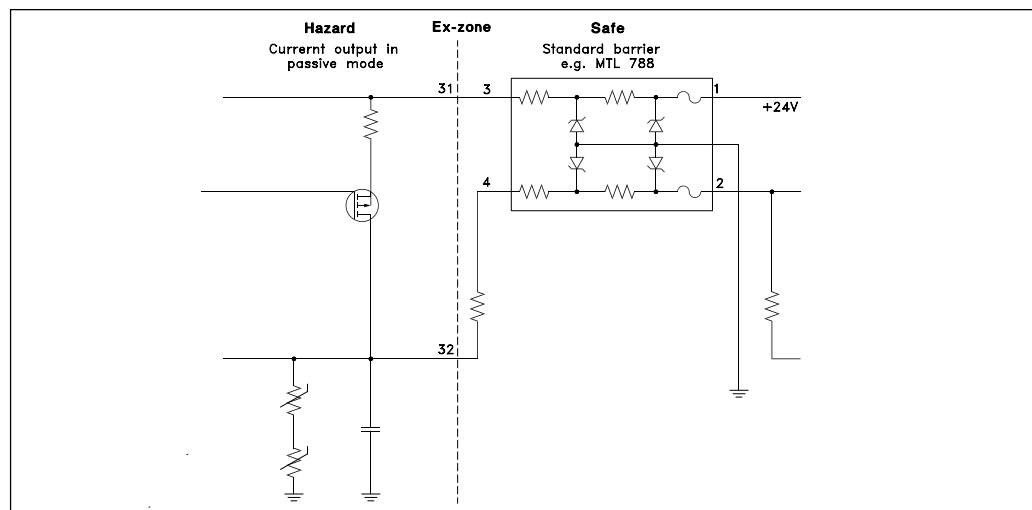
**Passive mode: Jumper in right position.
Active mode: Jumper in left position.**

Important

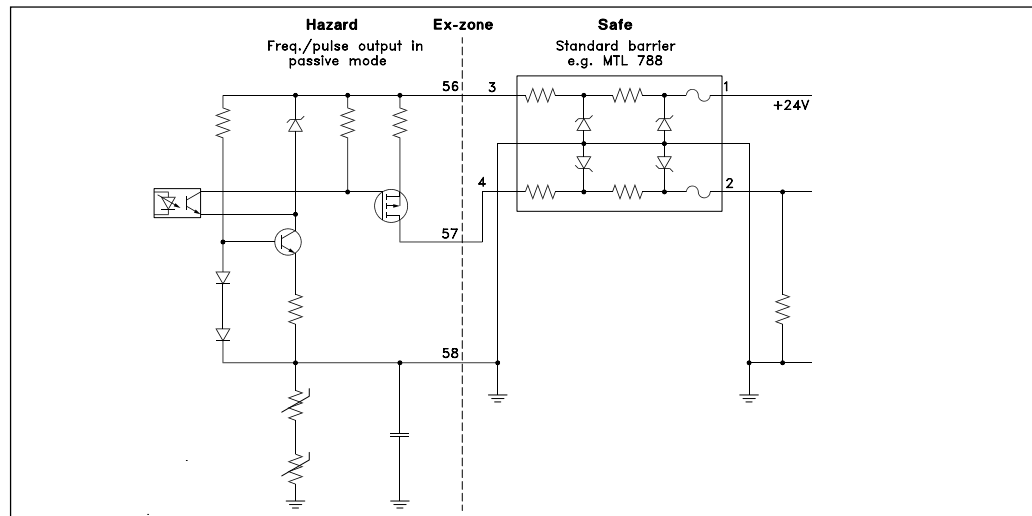
Be aware that in active mode the output shall be considered as a barrier output. The connection is not safe when put in active mode and accidentally connected to a barrier intended for use in passive mode.

6.9 Installation examples

Current output in passive mode



Frequency/pulse output in passive mode



HART output

