

Application data sheet

Flow rate measurement for high-pressure natural gas

Customer: Gaz De France (Network-Transportation)
Sites: Val de Seine area (France)

Description of the application:

As part of its "Metering" policy, Gaz de France is renovating, improving and supplementing the flow rate supervisory systems on its transportation network in the Val de Seine area.



Description of the supply:

Each measurement chain is made up of an instrumented sleeve, a gross flow rate computer UF322G-2, a PTZ corrector and a set of barriers to create an SI system.

The sleeve is fitted with:

- . 4 probes (2 chords in reflex configuration) that may be extracted under load, type SG-1558.
- . 1 thermowell designed to host the temperature transmitter.
- . 1 pressure connector connected to the pressure transmitter.

Intrinsic safety is the protection method chosen for all the equipment. The converter UF322G-2 is placed outside of hazardous areas and isolated from the rest of the equipment by zener or Ultrasafe BZ01 barriers.

The equipment is approved for use in explosive atmospheres (ATEX). When they are combined with the certified barriers [EEx ia] IIB CE0081 Ex II (1) G, the probes bear the marking CE0081 Ex II 1 G or EEx ia IIb T3 to T6.

The measurement chain delivers a standardized, bi-directional flow through the corrector by serial link (RS232 or 485) and analogue output, where the low-frequency pulse output is used to meter volumes.

Special technical specifications:

The instrumented sleeves are created in accordance with the specific constraints of each site.

Ranging from a diameter of 150 to 900mm, they are produced in 600 or 900 ASA series in accordance with the current CODAP (French construction code for unfired pressure equipment) and accepted according to the order of 11 May 1970 or the PED 97/23/EC.