

Il sensore collegato perimetralmente sulla zona pericolosa, forma un anello, chiuso all'estremità da una resistenza. Le estremità del cavo sensibile sono collegate ad un normale cavo bipolare (sez. 2 x 1,5 mmq) che dalla zona protetta, raggiunge il riquadro elettrico, posto in zona non pericolosa o comunque in zona presidiata.

La corrente di alimentazione normalmente a 220 V. passa attraverso la barriera ed esce dalla stessa a 24 V. e 6 milliampere e quindi a sicurezza intrinseca e alimenta il sensore lineare.

L'incendio o il calore facendo fondere le guaine speciali del sensore provocano il corto circuito che viene rilevato dalla barriera.

L'eventuale fusione o contatto permette ritorno al quadro segnalando allarme ed eventualmente comandare lampade, spia, e/o utenze necessarie attraverso appositi relais.

TECHNICAL REPORT CONCERNING FIRE DETECTION DEVICE

The proposed device has been studied deliberately for the defence of floating roof tanks, hydrocarbons, petrolchemical products, and generally easily inflammable products, storages, booster pumps, loading areas and so on. The detection section of the device is placed near and above the anular gasket of the floating roof where easily can verify escapes of gas who can inflame for various reasons.

In the other cases a heat linear sensor is erected peripherally or above the fire risk zones forming a close ring. This part of the device consists of a heat linear sensor composed by two electric cables bounded between them and protected by thermoplastic covering having a melting point of 68° or 105°C - Another plastic covering protects externally the linear sensor. The electronic barrier normally fed at 220 V. a.c. reduces the current, in the sensor, under 24 V. c.c. - 6 mA (intrinsic security conditions), and receives the short circuit signal from the sensor when flames or heat melt the thermoplastic coverings of the conductors. The cable ends are connected to a normal quadripolar cable (4 x 1,5 mm²) into a derivation box, and then arrives to the electric control board placed into a non-dangerous zone or in a controlled zone. The case of the electric board is selfextinguishing following ASTM D-635; is resistant to fluctuation in temperature between -30° and 150°; resistant to chemical agents (acids, hydroxides, salts, organic solvents, oils, greases, glycerin, etylenglicole, saturated chlorine water, formaldehyde 10% to 4% hydrogen peroxide, sea water, phenol 20%). Upon request, a "Cesi" test certification for the "intrinsic security" working of the device, can be supplied.

Protection grade:

- following CEI 144 ed. 1953 rules: IP 55
- following DIN 40050 ed. 1970: IP 55

RILEVAZIONE INCENDIO SU SERBATOIO A TETTO GALLEGGIANTE FLOATING ROOF TANK FIRE DETECTION

