SIL-DECLARATION of CONFORMITY ***SIL-DICHIARAZIONE DI CONFORMITA'***	**EN 50402 ; EN 61508**

N.E.T. S.r.l. – 20010 Cornaredo (MI) ITALY Via Legnano, 2, hereby declares under its own responsibility that the gas detection units

Model Cyber ++ PELL – Pellistor RS485 gas sensing transmitter

comply with the following European / International Standards for Functional Safety:

EN 50402:2005 + A1:2008 ; EN/IEC 61508:2010 parts 1 to 7

The Functional Safety Assessment was carried out by GWW GasWarn Dr. Wenker GmbH in cooperation with of N.E.T. S.r.l. see the enclosed Compliance Statement CST2715 of GWW dated May 13th 2011.
The results are given in the Report FSR2736 by GWW GasWarn Dr. Wenker GmbH (Dortmund / Germany) as independent consultant for SIL specifying the following data for the use of single channel (1 out of 1) or redundant (1 out of 2) sensors.
To achieve the claimed SIL-compliance for the sensors the conditions for use overleaf have to be obeyed.

	Single sensor 1oo1	**Redundant sensors 1oo2**
Safety function	Digital output (RS 485) for sending detector data to central unit	
Measuring range	0 – 100 % LEL	
SIL Capability Hardware	2	3
SIL Capability Software	2	2
Type of device	B	
Proof test interval	1 year	
MTTR	24 h	
SFF	91,47 %	
HFT	0	1
β Factor	—	10 %
PFD	$4{,}45 \times 10^{-4}$	$4{,}47 \times 10^{-5}$
λ_{du}	$1{,}00 \times 10^{-7}$ (per h)	
λ_{dd}	$1{,}31 \times 10^{-7}$ (per h)	
λ_{su}	$9{,}44 \times 10^{-7}$ (per h)	
λ_{sd}	0 (per h)	

Cornaredo Date: May 13th 2011

Dott. Giacomo Frigo
(General Director / *Amministratore Unico*)

Conditions for use

The values for the SIL-Capability of the CYBER Pell transmitter and the determined failure rates are valid only if the following conditions for use will be obeyed (responsibility of the user).

The detector has to be placed at a position suitable for the measuring application, to be connected correctly to the central unit and to be put into operation by the detector manufacturer or an authorized installer company.

Detected faults inside the transmitter will be sent as specific part of the transmission protocol.

The environmental parameters (e.g. the ranges for temperature, humidity and pressure) specified in the users manual have to be observed and followed.

The transmitter has to be maintained regularly following the instructions of N.E.T. and to be calibrated using a certified calibration gas mixture.

It has to be ensured that the CYBER Pell transmitter with pellistor sensor has no contact with traces of one of the following poisoning agents which may destroy the catalyst of the sensing element:

- Silicone vapours (e.g. in polishes, waterproof agents, silicone grease or plasticizer)
- Organic phosphorous compounds (e.g. herbicide or insecticide)
- Halogen compounds (e.g. inorganic or organic chlorine or fluorine compounds)
- Sulphur compounds (e.g. hydrogen sulphide or sulphur organic compounds)

If the presence of one of the mentioned poisons for the catalytic sensor will be expected an IR sensor e.g. CYBER IR should be used instead of the pellistor sensor.

If none of the mentioned poisons is expected but the presence cannot be excluded short calibration intervals are recommended which may be enlarged if no negative effect will be recognized during normal operation.

The proof test has to be carried out once per year. As proof test a regular calibration has to be carried out without additional requirements.