

Manufacturer Declaration

Manufacturer: **Yokogawa Process Analyzers Europe B.V.**
 Address: **Euroweg 2**
3825 HD Amersfoort
The Netherlands

Product description: **SM21(D)-AG2/AG4/AG6, single glass electrode**
SM21(D)-AL4/AL6, single glass electrode

Statement:

The electrode meets the requirements given by the standard IEC 60079-11:2011, "Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i". Within the standard it falls into the category "**simple apparatus**" (clause 5.7(a), passive component).

The electrode has no internal voltage and/or current-limiting and/or suppression devices and does not contain any means of increasing the available voltage or current.

The electrode has negligible internal inductance and capacitance. The connection cable, type WU20-PC or WU20-LT or WF10 in combination with BA10 connection box, has a maximum inductance of 1µH/meter and a maximum capacitance of 1.5nF/meter.

The maximum power dissipation of the single glass electrode is considered negligible because of the extreme high resistance of the glass membrane.

Special conditions of use must be taken into consideration:

- The electrode may only be connected to an intrinsically safe certified Yokogawa analyzer model PH202S, FLXA21 and FLXA202, with a maximum connection cable length of 60 meters in between the electrode and analyzer.
- Electrostatic charges of the electrode enclosure parts shall be avoided, especially in the case that the process medium is non-conductive. Use a damp cloth for cleaning the electrode.
- When the electrode is located in the explosive atmosphere, the maximum process temperature depends on the temperature class. Values are defined in table 1.

Table 1: Upper limit of process temperature SM21-AG2/AG4/AG6 and SM21-AL4/AL6

Temperature Class	Max. Process temperature [°C]				
	SM21(D)				
	-AG2	-AG4	-AG6	-AL4	-AL6
T6	80	80	80	80	80
T5	80 *	95	95	95	95
T4	80 *	100 *	100 *	130	130
T3	80 *	100 *	100 *	130 *	130 *
T2	80 *	100 *	100 *	130 *	130 *
T1	80 *	100 *	100 *	130 *	130 *

*: Max. Process temperature is limited by the operating temperature of the electrode.

If applicable, the product is checked against the latest official released revision of the standards mentioned above. Differences do not affect the product identified on this declaration.

Amersfoort – September 15, 2020

Yokogawa Process Analyzers Europe B.V.

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