



**Analyzer Systems**

## Questionnaire for Analyzer Systems

Information 10-0.0.I

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For the technical construction of a measuring system, the information of this questionnaire is essential. Only accurate and sufficient information will result into a faultless analyser system. For each different application, a separate questionnaire has to be completed.

Client:	
Address, country:	
Contact person:	Department:
Tel.:	Fax:
Measuring point:	

**M&C | Application**

1. What is the application or process? \_\_\_\_\_  
 For fuel gas application please specify the fuel: \_\_\_\_\_

2. What is the function of the system? \_\_\_\_\_  
 Controlling       Process regulation       Process measurements       13th BImSchV       17th BImSchV

3. Components to be measured

Components	Measuring ranges

4. Number of sample spots per analysing system (in case of varying process data, pls. fill in a separate questionnaire) \_\_\_\_\_ pcs.

5. Complete sample gas composition per sample point (sum of which = 100%)  Mol-%     Vol.-%     Weight.-%     Vol.-ppm

Component	Normal concentration	Minimum Concentration	Maximum concentration

6. Ex-category of sample gas     none     Zone 2     Zone 1     Zone 0     Zone 20     Zone 21     Zone 22

**M&C | Process data for the sample point(s)**

7. Do you need a quotation for a gas sample probe? (In case of your own supply, pls. describe probe in detail)     yes     no     own supply

8. Process conditions of the sample gas	normal	minimum	maximum
Sample point temperature (°C)			
Sample point pressure (bar abs.)			
Ambient temperature at installation point (°C)			
Water vapour (g/m3) or dew point (°C)			
Acid dew point (°C)			
Dust loading and other contaminants (g/m3) (e.g. coal dust, fly ash, particles of metal)			
Grain size and distribution of the solids (% , μ)			

9. Are the eventually existing dusts electroconductive?  yes  no
10. Ex-category of the ambience at the sample point:  none  Zone 2  Zone 1  Zone 0  Zone 20  Zone 21  Zone 22
11. Sample gas polymerised / crystallised (specify):  yes  no \_\_\_\_\_
12. Sample gas with corrosive components (specify):  yes  no \_\_\_\_\_
13. Aggressive atmosphere at the sample point (specify):  yes  no \_\_\_\_\_
14. Sample gas affects:  SS316Ti  Glass  FPM  Epoxy resin  \_\_\_\_\_
15. The atmosphere affects:  SS316Ti  Glass  FPM  Epoxy resin  \_\_\_\_\_
16. Which material is preferred for parts...  
 ...that comes in contact with the sample gas  SS316Ti  Glass,  FPM,  Epoxy resin  \_\_\_\_\_  
 ...that comes in contact with the atmosphere  SS316Ti  Glass,  FPM,  Epoxy resin  \_\_\_\_\_
17. Particular conditions at the sample spot (e.g. concussions, vibrations, climate): \_\_\_\_\_  
 \_\_\_\_\_
18. Gas sample probe, length of probe tube (mm) from flange: \_\_\_\_\_
19.  Mounting flange DN: \_\_\_\_\_ PN: \_\_\_\_\_  ANSI: \_\_\_\_\_  Lbs.: \_\_\_\_\_  \_\_\_\_\_
20. Mounting position of the probe:  horizontal position  vertical position  sketch
21. Available sample quantity \_\_\_\_\_ NI/h

### **M&C** Specifications for the sample line(s)

22. Do you need a quotation for a sample line?  yes  no  provided by client \_\_\_\_\_ pieces
23. Quantity/Length (m)/ dimension (e.g. 4/6, 6/8): \_\_\_\_\_
24. Preferred material for the sample line ...  
 ...that comes in contact with the sample gas  SS316Ti  PTFE  \_\_\_\_\_  
 ...that comes in contact with the atmosphere  nylon braiding  PA-corrugated hose  PVC
25. Heating of the sample line  electrically heated  steam heated  min. temperature of heating (°C) \_\_\_\_\_
26. Ex-category of the ambience where the gas sample line is installed?  no  Zone 2  Zone 1  Zone 0  
 Zone 20  Zone 21  Zone 22
27. Special lines or particularities (specify): \_\_\_\_\_  
 \_\_\_\_\_

### **M&C** Specifications for the analyse system

28. Construction of the analyse system:  Mounting plate, material: \_\_\_\_\_,  Gfk cabinet with  frame 19"  swing frame 19"  
 stainless steel cabinet with  frame 19"  swing frame 19"  Socle  100mm  200mm,  
 cabinet with special construction (description/sketch)  
 System with several cabinets  cabinet with window  glass  synthetic material  execution on wheels  
 portable execution (max. weight \_\_\_\_\_ kg), door stop  any  right side  left side,  special version or equipment (specify)  
 \_\_\_\_\_
29. Max. dimensions (mm): H \_\_\_\_\_ x B \_\_\_\_\_ x T \_\_\_\_\_
30. Colour:  RAL 7032 pebble grey  RAL 7035  special colour: \_\_\_\_\_

31. Installation area:  out door, temp. from \_\_\_\_\_°C to \_\_\_\_\_°C  direct insolation  
 protected against wind  indoor, temp. from \_\_\_\_\_°C to \_\_\_\_\_°C
32. Preferred materials for components that...  
 ...come in contact with the sample gas  SS316Ti,  glass,  FPM,  Epoxy resin,  \_\_\_\_\_  
 ...come in contact with the atmosphere  lacquered steel plate  SS316Ti,  GfK,  \_\_\_\_\_
33. Line inlets (position): cable gland  any  top  bottom  left side  right side  back side  
 sample line  any  top  bottom  left side  right side  back side
34. Line inlets (dimension): cable gland cables diameter (mm) \_\_\_\_\_  
 bulkhead stuffing box for tube/pipe size (mm) \_\_\_\_\_
35. Ex-zone of the installation area of the analyse system?  none  Zone 2  Zone 1  Zone 0  Zone 20  Zone 21  Zone 22
36. Distance between analyser system and non-hazardous area? \_\_\_\_\_ m / Is it possible to install components in the non-hazardous area? (e.g. safety cut out, electronic controller) specify, sketch if possible? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
37. Electrical auxiliary power:  230V/50Hz  115V/60Hz  24V/DC  \_\_\_\_\_V/ \_\_\_\_\_Hz  internal safety transformer
38. Type if network:  TN-S (Standard L1, L2, L3, N, PE)  TN-C  TN-C-S  TT  IT
39. Other auxiliary power:  instrument's air oil-/water free \_\_\_\_\_bar  steam \_\_\_\_\_bar  cooling water \_\_\_\_\_°C
40. output signal:  0-20mA  4-20mA  \_\_\_\_\_mV  potential free  Ex i
41. Further treatment of the output signal at installation place as:  indication  registration  controller connection  computer connection  
 PLS  audio/visual indication of limiting value  HI / LO Alarm
42. T90-time required:  not important  \_\_\_\_\_minutes
43. Hight above NN: \_\_\_\_\_m
44. Material of the internal gas lines:  PVC-tube  PTFE-tube  \_\_\_\_\_-tube  SS316Ti tube  
 \_\_\_\_\_-pipe  PVDF-fittings  SS316Ti fittings  other \_\_\_\_\_
45. Dimensions of internal gas lines:  4/6  6/8  8/10  10/12  \_\_\_\_\_inch  other \_\_\_\_\_
46. Sample gas outlet:  to atmosphere  back to process, pressure \_\_\_\_\_bar abs.
47. Heating (type): \_\_\_\_\_
48. Ventilation/climatic equipment (type): \_\_\_\_\_
49. Lighting (Art): \_\_\_\_\_
50. Terminal box (type): \_\_\_\_\_
51. Special guide lines, (e.g. factory standards, product requirements etc., pls. specify in detail and provide complete documents)  
 \_\_\_\_\_  
 \_\_\_\_\_
52. Production drawings are to be presented before production is started:  yes  no
53. Documentation quantity and -language: \_\_\_\_\_pieces  german  english  other \_\_\_\_\_
54.  Acceptance at manufacturer's works desired  initial starting desired  mounting on the job
55. Specialities (e.g. measuring point change over switch, autocal etc.) \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Residence, Date: \_\_\_\_\_

Signature purchaser: \_\_\_\_\_

Signature M&C official in charge: \_\_\_\_\_