

# TMA-210 Trace Moisture Analysers

ppm H<sub>2</sub>O measurement in corrosive gases



- Proven technology, long life
- Choice of analyser configurations and sensor housings
- Fast response
- Easy to maintain sensor

## Applications

- Chlor alkali industry
- Corrosive gas atmospheres, chlorine (Cl<sub>2</sub>) and hydrogen chloride (HCl)
- Medical oxygen (O<sub>2</sub>) according to European Pharmacopoeia
- Combustible gases, CH<sub>4</sub>, H<sub>2</sub>, (Ex version)

Trace moisture analysers from cmc Instruments are designed to give reliable, accurate measurements in tough field service over many years.

Even small traces of corrosive gases will contaminate and destroy aluminium oxide type sensors. cmc Instruments technology is just as effective in corrosive atmospheres as it is in inert gases.

The TMA-210 series is particularly suited to applications where a fast response is required. The higher flow rate makes this more suitable for non-continuous use, e.g. portables. Analyser, sensor, sensor housing and sample system are all available in different options. Thus each customer receives a system tailored for their specific application.

Analysers are available in bench, portable, wall mount and 19" rack formats. Fixed configurations are available for hazardous areas (Zone 1) and with the option of purge cabinet enclosures.

Sensors are easily refurbished by the customer. A regular check and occasional refurbishment results in many years use from a single sensor.

Sensor housings are available in Monel, Hastelloy, PFA, stainless steel and glass. Monel is the material of choice for chlorine use and Hastelloy for hydrogen chloride and other corrosive gas use. Stainless steel offers a more economic alternative for non-corrosive applications.

Sample systems can be simple or complex. For portable, non-continuous use a lightweight system is perfect. For continuous use the sample system is usually housed in an enclosure with a purge option.

All system components are designed to withstand the most corrosive gases. For instance, PVDF flowmeters, Viton seals and PFA tubing are standard. Fittings are available in 6mm or 1/4" NPTF.

Designed and manufactured in Germany these products represent quality at an affordable price. Sales engineers at cmc Instruments are waiting to offer you the best solution for your moisture measurement applications.



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## General Specification

Ranging: Autoranging, manual, RS232, external signal (fixed analysers only)

Ranges: 0 - 10 ppm  
0 - 100 ppm  
0 - 1000 ppm  
0 - 2500 ppm

Digital output: 2 volt free alarm  
5 volt free range  
Analog output: 0 - 20mA (<500Ω)  
(with range 4 - 20mA (<500Ω)  
Identification) 0 - 10V (>100kΩ)

Display: LCD

Serial port: RS232 Modem

Input: 5 (range switching) (fixed analysers only)

Sensitivity: ±0.1% fsd

Operating temp.: +5°C - +50°C

Power: 80-230V, 50Hz

## Weights and Dimensions

Typical—consult cmc Instruments for exact details

Dimensions (w x h x d) mm:

257 x 160 x 316

Weights net: 6kg

## Ordering Information

Part No.	Description
Analysers	
TMA-210	Trace moisture analyser, benchtop version with 3m sensor cable
TMA-210-P	Trace moisture analyser, portable version with rechargeable battery and 3m sensor cable
TMA-210-W	Trace moisture analyser, wall mount version with 3m sensor cable
TMA-210-19"	Trace moisture analyser, 19" rack mount version with 3m sensor cable
Options	
TMA-210/CM	Checkmaster for span check
TMA-210/ZB	Zener barriers installed internally
Sensors	<i>(Note all sensors are also available with rhodium wire)</i>
TMS-SS/P/100	Stainless steel housing, platinum wire sensor, 100 NI/hr flow
TMS-M/P/100	Monel 400 housing, platinum wire sensor, 100 NI/hr flow
TMS-H/P/100	Hastelloy housing, platinum wire sensor, 100 NI/hr flow
TMS-G/P/100	Glass housing, platinum wire sensor, 100 NI/hr flow
TMS-P/P/100	PFA housing, platinum wire sensor, 100 NI/hr flow
Accessories	
TMF-SS/100	Flowmeter, stainless steel, with needle valve
TMF-T/100	Flowmeter, PVDF, with needle valve
TMS-H-PFA	PFA tubing, 6mm diameter, per metre
TMS-SC-S	Sensor cable with standard connector, 3 metre
TMS-SC-PEEK	Sensor cable with PEEK® connector, 3 metre
TMS-SC-ADD	Additional price for longer sensor cable, per metre
Service & spares	
TMW-SET	Complete sensor service kit including goggles, acetone, water, electrolyte, cleaning brush and screwdriver
TMW-ELO	Electrolyte, 150ml (suitable for all sensors)
TMS-OR-FKM	O-ring for sensor, Viton®
TMS-OR-FEP	O-ring for sensor, FEP®
TMS-OR-Kalrez	O-ring for sensor, Kalrez®

\*\*\*Please consult cmc Instruments for detailed part numbers and application information\*\*\*



Choice of sensors and portable stand including 3-way valve and flowmeter



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