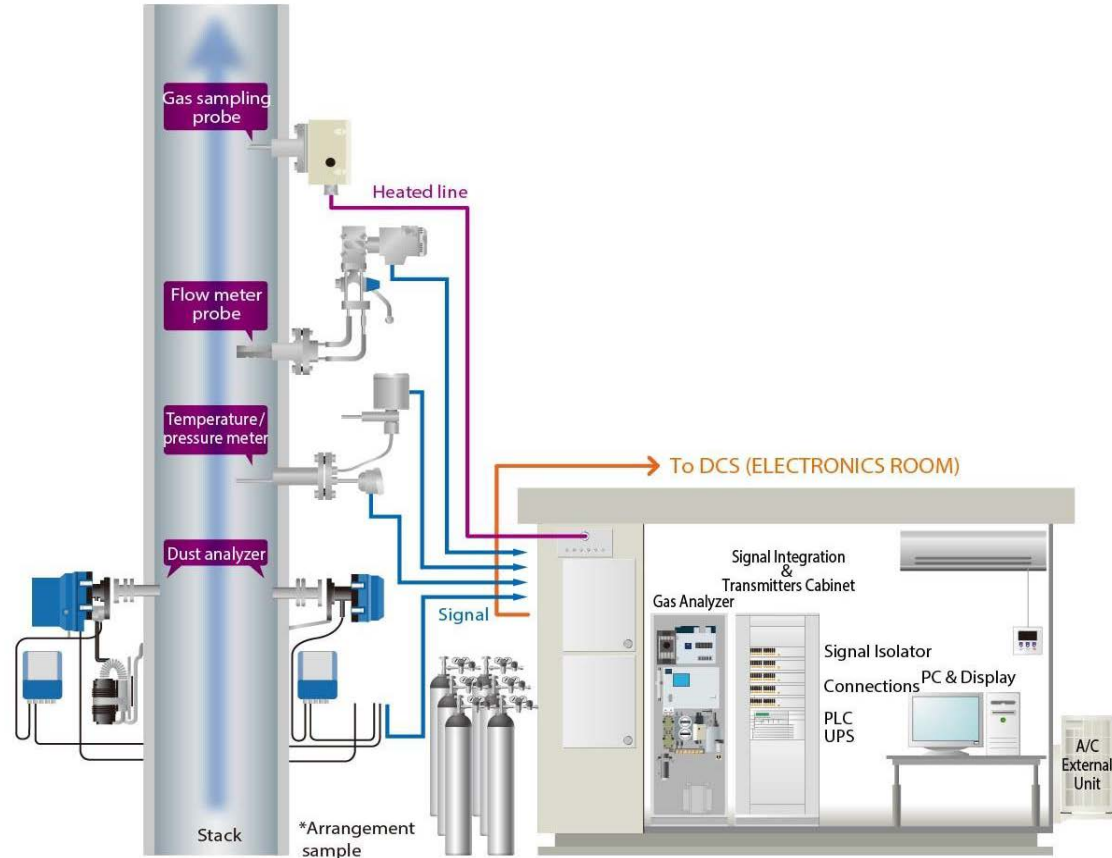




M&C Core Products

- ▶ Gas Sampling
- ▶ Gas Transport
- ▶ Sample Conditioning
- ▶ Gas Analysis
- ▶ Process Control



01 M&C Product Group

► Gas Sampling

01

M&C Product Group

► Gas Sampling – Dilution Extractive



01

M&C Product Group

► Gas Sampling – Fully Extractive



01

M&C Product Group

► Gas Sampling – Sample Tubes

- Stainless Steel
- Inconel
- Hastelloy
- Teflon
- Ceramic



01

M&C Product Group

► Gas Sampling – Pre-filters



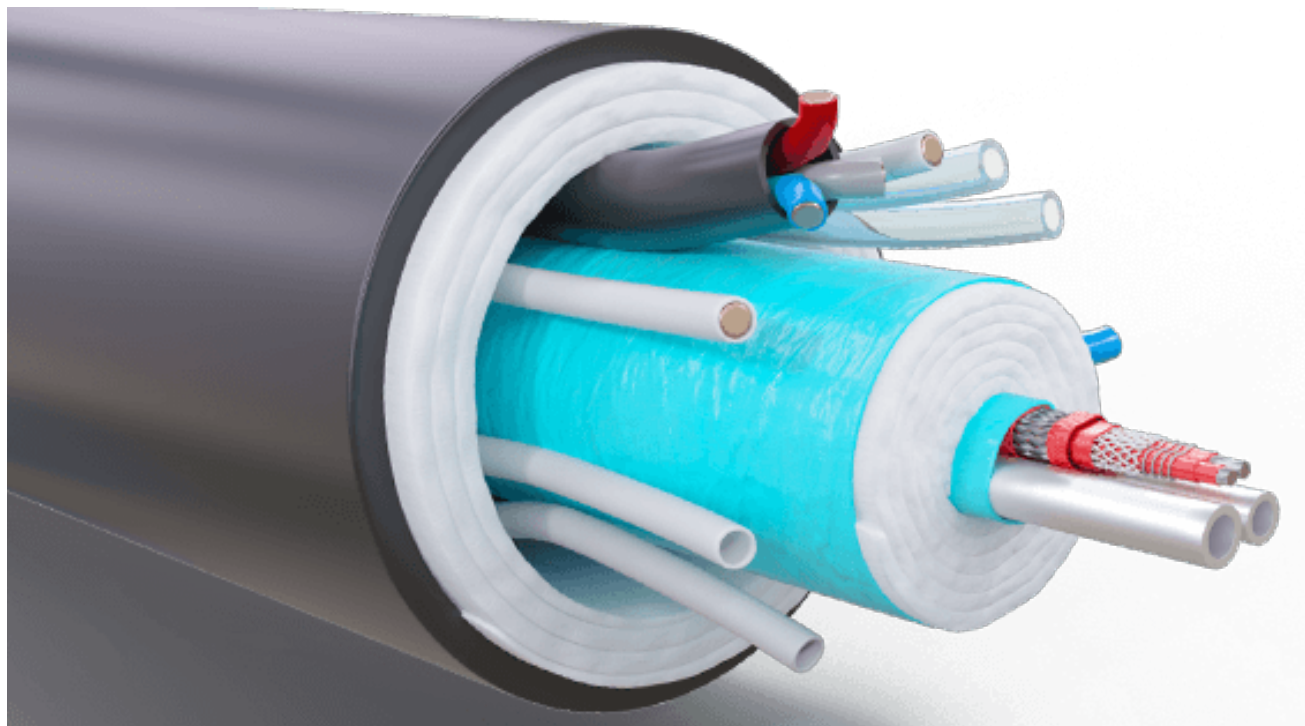
02 M&C Product Group

► Gas Transport

02

M&C Product Group

► Gas Transport – Heated Sample Umbilicals



02

M&C Product Group

► Gas Transport – Gas Sample Pumps



- Bellows Pump
- Diaphragm Pump



02



02 M&C Product Group

► Gas Transport – Valves



03 M&C Product Group

► Sample Conditioning

03

M&C Product Group

► Sample Conditioning – Gas Coolers

- Compressor
- Thermoelectric
- Deep-Cycle Freezer



03

M&C Product Group

► Sample Conditioning – Gas Converters

- NO_x
- Ammonia



03

M&C Product Group

► Sample Conditioning – Condensate Removal



03

M&C Product Group

► Sample Conditioning – Filtration



03

M&C Product Group

► Sample Conditioning – Liquid Stops



03

M&C Product Group

► Sample Conditioning – Wash Bottles & Humidifiers



04 M&C Product Group

► Gas Analysis

04

M&C Product Group

► Gas Analysis – Multigas Analyzers

- Oxygen
- CO
- CO₂
- CH₄
- H₂S
- H₂
- N₂O
- SF₆
- CF₄
- NO



04 M&C Product Group

► Gas Analysis – Oxygen Analyzers



04

M&C Product Group

► Gas Analysis – Tunable Diode Lasers (TDL)

► Cross Duct/Stack

► Extractive

- | | |
|--------------------|--------------------|
| ► Ammonia | ► Formaldehyde |
| ► CO | ► NO |
| ► CO ₂ | ► NO ₂ |
| ► CH ₄ | ► HCN |
| ► H ₂ S | ► HF |
| ► H ₂ | ► H ₂ O |
| ► HCl | ► SO ₂ |



04

M&C Product Group

► Gas Analysis – Open Path Tunable Diode Lasers (TDL)

- H₂S
- CH₄
- H₂O
- Formaldehyde
- Other

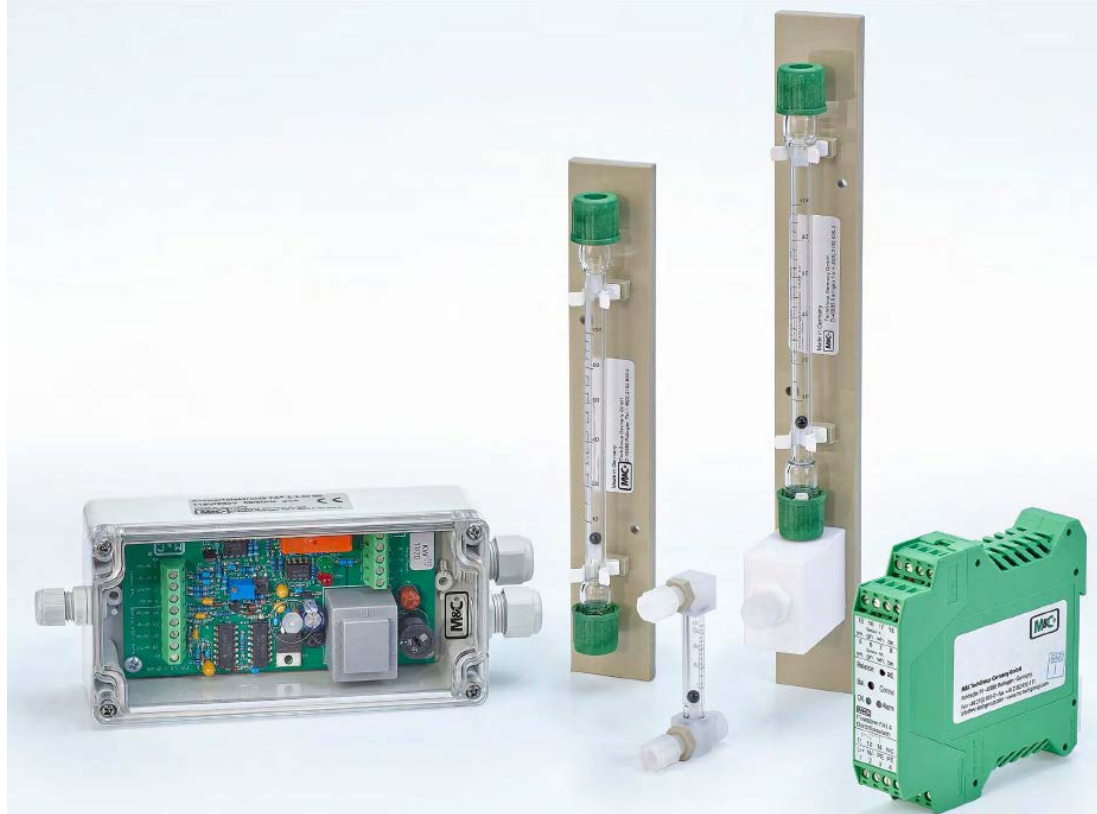


05 M&C Product Group

► Process Control

05 M&C Product Group

► Process Control – Flowmeters



05

M&C Product Group

► Process Control – Flow Monitoring



05

M&C Product Group

► Process Control – Temperature Controllers



06 M&C Product Group

- ▶ Highlighted Products

- ▶ Hazardous Area

06

M&C Product Group

► Highlighted Products – SP180HUS Extractive Probe

- Sampling of dust loaded process gases
- Small volume, fast response time
- Easy mounting & maintenance
- Self-regulating electrical heating
- Low-temperature alarm contact
- Thermal insulation cover for compact outdoor mounting
- Options for FRP or stainless steel enclosure and filter blowback
- Calibration gas connection prior to filter element
- Compatible with screw-in or flange interfaced probe extension tubes



Intertek
5010567

ETL Certified to UL and CSA standards for use in general purpose areas



Intertek
5010567

ETL Certified to UL standards for use in Class I, Division 2, Groups ABCD, T2, T3 and T4 hazardous areas

► Highlighted Products – TEC4 Thermoelectric Cooler

- Small dimensions and light weight
- Explosion proof version according to: CSA and ETL for Class I, Division 2, Groups ABCD, T4
- Gas flows at 12 % moisture and 77 °F (25 °C) ambient
 - Single Active = 5 LPM
 - Passive/Active = 8 LPM
 - Active/Active = 8 LPM
- Jet stream heat exchangers in 4 standard materials: 316SS, Kynar, Duran glass, and C276
- Supports 10" long Jet stream impingers
- Ambient temperatures up to 104 °F (40 °C)
- Outlet dew point adjustable from 32 °F to 46.4 °F (+0 °C to +8 °C)
- Digital temperature indication
- Configurable status alarm contact

