

QMA601

Analyzer only (supplied with Desiccant Drier, Back Pressure Regulator & Gauge)

Product Parent Code: QMA601			
QMA601 Analyzer			
Product Ordering Code {Feature A}+{Feature B}+{Feature C}+{Feature D}			
Feature	Item	Description	
Feature {A}	Base Model		
	QMA601	Exd certified, automatic online Quartz Crystal Microbalance moisture measurement in a wide range of gases. Measurement range 0.1-2000ppmv, accuracy +/-0.1ppmv or 10% of reading whichever is greater. Mains power, colour touch screen, RS485 Modbus RTU & TCP/IP, 2 x 4-20mA and 4 volt free contact outputs. NPL/NIST traceable moisture generator	QMA601-
Feature {B}	Hazardous Configurations		
	B1	ATEX/IECEX certified system	A
	B2	cQPSus certified system (24VDC) Class I Division 1 / Class I Zone 1	B
Feature {C}	Moisture Generator		
	C1	Low Range (~0.5 ppmv)	A
	C2	Medium range (~5 ppmv)	B
	C3	High Range (~50 ppmv)	C
Feature {D}	Calibration		
	D4	Standard Calibration - 0.1 ppmv to 700ppmv (2 barg input, 1 barg back pressure)	A
	D6	Asymmetric Calibration (2 barg input, 1 barg back pressure) - always use Moisture Generator option C2 Medium range (~5 ppmv)	B

Note: Please see accessories section for material certifications and Contamination trap

Ordering Example

QMA601-ABA	QMA601+B1+C2+D4: Base unit, ATEX/IECEc certified, Medium Range MG, Standard Calibration
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QMA601

QMA601 EExd Sampling System for Natural Gas or Trace Moisture

Product Parent Code: QMA601-SYS-I/QMA601-SYS-M			
QMA601 Sampling System			
Product Ordering Code {Feature A}+{Feature B}+{Feature C}+{Feature D}+...+{Feature G}+{Feature M}			
Feature	Item	Description	
Feature {A}	Base Model		
	QMA601-SYS-I	Sample system with Base Model Analyser specifically designed for the measurement of trace moisture levels. 1/4" tube with twin ferrule compression fittings and Viton soft parts. Pressure, flow control & filter options. Gas wetted parts in 316 SS, 3nl/min bypass flow nominal	
	QMA601-SYS-M	Sample system with Base Model Analyser specifically designed for the measurement of trace moisture levels. 6mm tube with twin ferrule compression fittings and Viton soft parts. Pressure, flow control & filter options. Gas wetted parts in 316 SS, 3nl/min bypass flow nominal	
Feature {B}	Hazardous Configurations		
	B1	ATEX/IECEX certified system	
	B2	North American certified system Class 1 Div 2 (Analyzer 24VDC, sampling system 110VAC)	
Feature {C}	Sampling System Type		
	C1	Indoor Sampling System 316 stainless steel panel	
	C2	Outdoor Sampling System 304 stainless steel enclosure	
	C3	Outdoor Sampling System 316 stainless steel enclosure	
Feature {D}	Fast Loop Bypass		
	D0	No Fast Loop Bypass required (Particulate filter – For pure gas applications only)	
	D1	Fast Loop Bypass (Pressure Regulator, Flow Meter + Non Return Valve) plus membrane filter for Natural Gas application	
	D2	Fast Loop Bypass (Pressure Regulator, Flow Meter + Non Return Valve) with particulate/coalescing filter for Trace Moisture applications	
	D3	Fast Loop Bypass (Pressure Regulator, Flow Meter + Non Return Valve) with membrane filter and purge inlet with 3 way valve for H2 Recycling applications - MUST BE USED with QMA601-B_C2-D6 + QMA601-E1 (Contamination trap) should be added. QMA601-Mx (Material Certificates) should be added if required.	

Process Analyzers

Feature {E}	Heating (Outdoor systems only)	
	E0	No Heater required
	E1	240VAC Fixed 20°C
	E2	110VAC Fixed 20°C
	E3	240VAC adjustable 0-60°C (ATEX/IECEX)
	E4	110VAC adjustable 0-60°C (ATEX/IECEX)
	E5	240VAC Fixed 40°C (not for use with F7)
E6	110VAC Fixed 40°C (not for use with F7)	
Feature {F}	Outdoor Sampling System Cooling (non-mandatory)	
	F0	No cooling required
	F4	240VAC (ATEX/IECEX) Enclosure cooling for temperature ≥ 35°C ambient (Adjustable setpoint, instrument air supply required)
	F5	110VAC (ATEX/IECEX) Enclosure cooling for temperature ≥ 35°C ambient (Adjustable setpoint, instrument air supply required)
	F6	Ventilated enclosure with louvre panels (IP55 only) Ambient temperature -20C to +35C
F7	Enclosure cooling (mechanical control) for temperature 45°C max. ambient (instrument air supply required)	
Feature {G}	Outdoor Sampling System Trace heating (non-mandatory)	
	G0	No Trace Heating
	G1	240VAC 3m trace heated sample line assembly (1/8" O.D. AISI 316)
	G2	110VAC 3m trace heated sample line assembly (1/8" O.D. AISI 316)
	G3	240VAC 3m trace heated electro polished sample line assembly (1/8" O.D. AISI 316)
	G4	110VAC 3m trace heated electro polished sample line assembly (1/8" O.D. AISI 316)
For longer heated sample line lengths - please contact Michell {max 15m}		
Feature {M}	Material Certification	
	M0	No material certification
	* M1	Material certificate to BS EN 10204 – type 3.1
	* M2	Material certificate to BS EN 10204 – type 3.1 + NACE MR0175 Conformity
* On certain labor intensive services, no discount can be offered. These items are always offered at list price.		

Ordering Example

QMA601-MON+B1+C2+D1+E0+M0	QMA601+B1+C2+D4: Base unit, ATEX/IECEc certified, Medium Range MG, Standard Calibration
QMA601-SYS-I+B1+C2+D1+E1+F0+G1+M1	Sampling System with Imperial fittings, ATEX/IECEX certified, 304 enclosure, Fast Loop Bypass, 240VAC 20C heater, No Cooling, 240VAC 3m trace heating, Material certificate to BS EN 10204 – type 3.1
Total System	

QMA601 ACCESSORIES, SPARE PARTS, DOCUMENTATION & SERVICES

Order Codes	Product / Description
Spares & Accessories	
QMA601-SYS-MF	Michell standard mounting frame
QMA601-SYS-SC	Michell standard mounting frame, floor standing with sun canopy and three sides- 316 box section construction with roof and side panels
Documentation (Standard documentation package comprises User Manuals (one printed per analyzer system) plus CD ROM containing Ex certificates, Drawing Set, Calibration Certificates and Pressure test certificates)	
* SP-MC	Material Certificates for spare parts
* QMA601-DOC	Documentation package (per individual system (to Michell Standard SDR list))
* QMA601-DOC-E	Electronic Documentation Booklet - EDB (per individual system (to Michell Standard SDR list). Each section of the EDB will be bookmarked and compiled as a PDF file.
* QMA601-DOC-ADH	Duplicate of DOC package (each hard copy)
* QMA601-DOC-ADS	Duplicate of DOC package (each soft copy (CDROM))
* QMA601-DOC-ADE	Duplicate of DOC-E package (on CDROM)
* QMA601-DOC-CVDR	Documentation package for customer specific VDR
* QMA601-DOC-CP	Document package on customer headed paper (per individual system (to Michell Standard SDR list))
* QMA601-DOC-CP-ADH	Duplicate of DOC package on customer headed paper (each hard copy)
* QMA601-DOC-CP-ADS	Duplicate of DOC package on customer headed paper (each soft copy (CDROM))
* QMA601-DRG	Drawings for approval before build
* QMA601-M1	Material certificate to BS EN 10204 – type 3.1
* QMA601-M2	Material certificate to BS EN 10204 – type 3.1 + NACE MR0175 Conformity
Packaging	
* QMA-MON-PAC	Packing for Analyzer, dryer column and back pressure regulator only (crate for air & road)
* QMA601-SYS-PAC1	Packing for Main Unit with Indoor Sampling System (crate for air & road)
* QMA601-SYS-PAC2	Packing for Main Unit with Outdoor Sampling System (crate for air & road)
* QMA601-SYS-PAC3	Packing for Mounting Frame and accessories only (crate for air & road)
* QMA601-SYS-PAC4	Packing for Heat Trace line up to 15m length (crate for air & road)
* QMA601-SYS-PAC5	Packing for Analyzer with Sun Canopy, with roof and 3 Sides (crate for air & road)
For systems needing > 3m trace heated sample line (max. 15m) - contact Michell Instruments	

Process Analyzers

Additional Services		
QMA601-CAL	In-house calibration of QMA601 (includes replacement moisture generator, desiccant charge and contamination adsorbent (if applicable))	
** QMA601-FAT1	One day FAT pre-delivery inspection / or first day of inspection	
** QMA601-FAT2	Each consecutive day of FAT pre-delivery inspection	
** GEN-FAT-ST8	8 hour unwitnessed stability test	
** GEN-FAT-ST12	12 hour unwitnessed stability test	
** GEN-FAT-ST24	24 hour unwitnessed stability test	
Service Spares		
QMA601-SOA-0.5P	QMA601 Sample block/oven assembly (calibrated with ~0.5ppmv MG, 2 barg input, 1 barg back pressure)	
QMA601-SOA-5P	QMA601 Sample block/oven assembly (calibrated with ~5ppmv MG, 2 barg input, 1 barg back pressure)	
QMA601-SOA-50P	QMA601 Sample block/oven assembly (calibrated with ~50ppmv MG, 2 barg input, 1 barg back pressure)	
QMA601-SOA3-0.5P	QMA601 Sample block/oven assembly (calibrated with ~0.5ppmv MG, 3 barg input, 2 barg back pressure)	
QMA601-SOA3-5P	QMA601 Sample block/oven assembly (calibrated with ~5ppmv MG, 3 barg input, 2 barg back pressure)	
QMA601-SOA3-50P	QMA601 Sample block/oven assembly (calibrated with ~50ppmv MG, 3 barg input, 2 barg back pressure)	
QMA601-SOA-S05	QMA601 Sample block/oven assembly (calibrated with ~0.5ppmv MG, 12 psig input, 5 psig back pressure)	
QMA601-SOA-S5	QMA601 Sample block/oven assembly (calibrated with ~5ppmv MG, 12 psig input, 5 psig back pressure)	
QMA601-SOA-S50	QMA601 Sample block/oven assembly (calibrated with ~50ppmv MG, 12 psig input, 5 psig back pressure)	
QMA601-SOA-LR	QMA601 Oven assy 0.5ppmv MG 2barg/1barg 0.02 to 100 ppmV calibration	
QMA601-SHMI	QMA601 Display assembly	
QMA601-SDA	QMA601 Dryer assembly	
QMA601-SCT	QMA601 Contamination trap assembly	
QMA-SMG-0.5P	Replacement Low Range (~0.5ppmv) Moisture Generator	
QMA-SMG-5P	Replacement Medium Range (~5ppmv) Moisture Generator	
QMA-SMG-50P	Replacement High Range (~50ppmv) Moisture Generator	
QMA-SMG3-0.5P	Replacement Low Range (~0.5ppmv) Moisture Generator (3 barg input, 2 barg back pressure)	
QMA-SMG3-5P	Replacement Medium Range (~5ppmv) Moisture Generator (3 barg input, 2 barg back pressure)	
QMA-SMG3-50P	Replacement High Range (~50ppmv) Moisture Generator (3 barg input, 2 barg back pressure)	
QMA-SMG12-0.5P	Replacement Low Range (~0.5ppmv) Moisture Generator (12 psig input, 5 psig back pressure)	
QMA-SMG12-5P	Replacement Medium Range (~5ppmv) Moisture Generator (12 psig input, 5 psig back pressure)	
QMA-SMG12-50P	Replacement High Range (~50ppmv) Moisture Generator (12 psig input, 5 psig back pressure)	
QMA601-SFK	Filter kit for Coalescer and Membrane Separator - each	
QMA601-SPTK	Sensor Pressure Test Kit (Michell engineer installation only)	
QMA-THERMAL-FUSE	QMA401/601 Thermal Fuse	
QMA601-E1	Contamination trap (All other applications – natural gas, complex petrochemicals, reforming recycle, etc)	
* On certain labor intensive services, no discount can be offered. These items are always offered at list price.		
** These are the Michell charges for the FAT only. The cost of any third party inspector attending will be passed on, at cost, in addition to the Michell charges. Therefore, please ensure that the costs of any third party inspector(s) are added at the quotation stage.		

Process Analyzers

QMA601-LR

Analyzer only (supplied with Desiccant Drier, Back Pressure Regulator & Gauge)

Product Parent Code: QMA601-LR			
QMA601-LR Analyzer			
Product Ordering Code {Feature A}+{Feature B}			
Feature	Item	Description	
Feature {A}	Base Model		
	QMA601-LR	Exd certified, automatic online Quartz Crystal Microbalance trace moisture measurement in a wide range of gases. Measurement range 0.02-100ppmv, accuracy +/-0.03ppmv. Mains power, colour touch screen, RS485 Modbus RTU & TCP/IP, 2 x 4-20mA and 4 volt free contact outputs. NPL/NIST traceable moisture generator	
Feature {B}	Hazardous Configurations		
	B1	ATEX/IECEX certified system	A
	B2	cQPSus certified system (24VDC) Class I Division 1 / Class I Zone 1	B

Note: Please see accessories section for material certifications

Ordering Example

QMA601-LR-A	QMA601-LR+B1: Base unit, ATEX/IECEc certified	
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QMA601-LR ACCESSORIES, SPARE PARTS, DOCUMENTATION & SERVICES

Order Codes	Product / Description	
Documentation (Standard documentation package comprises User Manuals (one printed per analyzer system) plus CD ROM containing Ex certificates, Drawing Set, Calibration Certificates and Pressure test certificates)		
* SP-MC	Material Certificates for spare parts	
* QMA601-DOC	Documentation package (per individual system (to Michell Standard SDR list))	
* QMA601-DOC-E	Electronic Documentation Booklet - EDB (per individual system (to Michell Standard SDR list). Each section of the EDB will be bookmarked and compiled as a PDF file.	
* QMA601-DOC-ADH	Duplicate of DOC package (each hard copy)	
* QMA601-DOC-ADS	Duplicate of DOC package (each soft copy (CDROM))	
* QMA601-DOC-ADE	Duplicate of DOC-E package (on CDROM)	
* QMA601-DOC-CVDR	Documentation package for customer specific VDR	
* QMA601-DOC-CP	Document package on customer headed paper (per individual system (to Michell Standard SDR list))	
* QMA601-DOC-CP-ADH	Duplicate of DOC package on customer headed paper (each hard copy)	
* QMA601-DOC-CP-ADS	Duplicate of DOC package on customer headed paper (each soft copy (CDROM))	
* QMA601-DRG	Drawings for approval before build	
* QMA601-M1	Material certificate to BS EN 10204 – type 3.1	
* QMA601-M2	Material certificate to BS EN 10204 – type 3.1 + NACE MR0175 Conformity	
Packaging		
* QMA-MON-PAC	Packing for Analyzer, dryer column and back pressure regulator only (crate for air & road)	
Additional Services		
QMA601-LR-CAL	In-house calibration of QMA601 Low Range (includes replacement moisture generator, desiccant charge and contamination adsorbent (if applicable))	
** QMA601-FAT1	One day FAT pre-delivery inspection / or first day of inspection	
** QMA601-FAT2	Each consecutive day of FAT pre-delivery inspection	
** GEN-FAT-ST8	8 hour unwitnessed stability test	
** GEN-FAT-ST12	12 hour unwitnessed stability test	
** GEN-FAT-ST24	24 hour unwitnessed stability test	
Service Spares		
QMA601-SOA-LR	QMA601 Oven assy 0.5ppmv MG 2barg/1barg 0.02 to 100 ppmV calibration	
QMA601-SHMI	QMA601 Display assembly	
QMA601-SDA	QMA601 Dryer assembly	
QMA-SMG-0.5P	Replacement Low Range (~0.5ppmv) Moisture Generator	
QMA601-SFK	Filter kit for Coalescer and Membrane Separator - each	
QMA601-SPTK	Sensor Pressure Test Kit (Michell engineer installation only)	
QMA-THERMAL-FUSE	QMA401/601 Thermal Fuse	
* On certain labor intensive services, no discount can be offered. These items are always offered at list price.		
** These are the Michell charges for the FAT only. The cost of any third party inspector attending will be passed on, at cost, in addition to the Michell charges. Therefore, please ensure that the costs of any third party inspector(s) are added at the quotation stage.		