

SOFTWARE AND SERVICE PACKAGE RMG GAS METERING MANAGEMENT

The software suite to ensure trouble-free metering operations for network and metering point operators. Simple graphical monitoring of live measurement and status data and specific documentation with remote diagnosis, remote parameterization and reporting of events and measurement data.



BENEFITS AND MODULES

The "RMG Gas Metering Management" software and service package provides operators and measuring stations with a means of tailored station monitoring and simple management. Local and remote operation. Manufacturer-independent.

The software and service package for measuring stations

- Simple to use and full data and costs transparency
- Remote access to the devices keeps station visits to a minimum
- Manufacturer independence reduces costs for software and service
- One software program for all measuring devices simplifies planning and organization
- Scalability enables optimal adaptation to individual requirements
- Various interfaces ensure optimal data transfer



The RMG Gas Metering Management comprises three modules:





Gas Metering Monitor

- for the schematic representation of the station
 - Device status
 - Alerting
 - Trends

Gas Metering Analysis

- for the supply of measuring and energy data
 - Data billing
 - Data processing
 - Access & Reports



Gas Metering Terminal

- for the simple configuration, parameterization and maintenance of measuring devices from RMG and third-party suppliers
 - Remote Display View
 - Control
 - Special functions

GAS METERING TERMINAL



Gas Metering Terminal - GM-T

Fast remote diagnosis and remote parameterization is available with the Gas Metering Terminal software.

In addition, current status information, measured values or configuration data from many different measuring devices can be displayed remotely and changed depending on the security level. In addition, functions for reading out load profile and event archives are available. Despite the variety of functions, the GM-T can be operated intuitively. The software is therefore an indispensable aid for operating the systems cost-effectively – without long journeys to the measuring stations – and quickly using remote diagnosis.

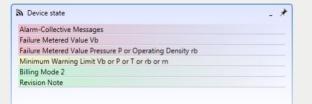


Status and Error Analysis

The current status of the device is displayed as plain text. GM-T goes one step further and displays the associated parameters dynamically in the event of an error.

Online Presentation

The representation analogous to the target device including operation of the switches allows the device to be operated "as on site". At the same time, important parameters are displayed as a list.



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Archives, Messages, Parameters

The functionality of GM-T is completed by the retrieval and visualization of archives, messages and parameters - only one push of a switch away. In addition to reading out, it is also possible to adjust parameters.

GAS METERING ANALYSIS



Gas Metering Analysis - GM-A

The billing, output and transfer of data is becoming increasingly important.

With the Gas Metering Analysis software, data can be combined into almost any report. This includes, for example, any combination and summation, as well as the inclusion of asynchronous fault counters or the calculation of quantities from counter readings. Various predefined report templates, script-based exporting and automation make the software the ideal output interface for your data.

Simple Configuration

The configuration tool can be used to compose and offset channels as required and add additional features such as statistics or appropriate messages.

No	Type	Station name / Identifier	Entity name	Archive name	Channel name	SU 13	SU 14	SU 15	SU 16
1	ZS	USM	Reg. [N]	01 Counter Volues FD 1	Vm [m3]	•			
2	ZS	USM1	Reg.[K]	01 Counter Values FD 1	Vm [m3]				
3	ZS	USM2	Reg.[L]	01 Counter Values FD 1	Vm [m3]	•			
4	ZS	USM	Reg.[N]	01 Counter Values FD 1	∨b [Sm3]		•		
5	ZS	USM1	Reg.[K]	01 Counter Values FD 1	∨b [Sm3]		•		
	ZS						•		
7	SZ	USM	Reg. [N]	02 Dist Values FD 1	dist. Vm [m ^a]				total (+) ct from total (-
8	SZ	USM1	Reg.[K]	02 Dist Values FD 1	dist. Vm [m ^a]				ment of total
9	SZ	USM2	Reg.[L]	02 Dist Values FD 1	dist. Vm [m ^a]				
10	ZS	USM	Reg.[N]	01 Counter Values FD 1	E [MWh]				y channel channel

Tabular report										
	Consumptio	0			Totalizer				Analog value	5
Date/Time	Vm [m3]	Vb [5m3]	dist. Vm [m ^a	E[MWh]	Vm [m3]	Vb [5m3]	dist. Vm [m ³	E [MWh]	p [bar]	T [*C]
18.04.2013 06:00					65558	5245647	603	57530772	80,47	12,38
18.04.2013 07:00	185	14985	0	160340	65743	5260632	603	57691112	82,2	13,81
18.04.2013 08:00	173	13667	0	154143	65916	5274299	603	57845255	81,58	13,93
18.04.2013 09:00	178	14062	0	149057	66094	5288361	603	57994312	78,36	11,74
18.04.2013 10:00	152	12008	0	137408	66246	5300369	603	58131720	81,55	12,86
18.04.2013 11:00	167	13026	0	148296	66413	5313395	603	58280016	78,07	14,75
18.04.2013 12:00	139	11259	0	123599	66552	5324654	603	58403615	78,12	13,84
18.04.2013 13:00	155	12090	0	132246	66707	5336744	603	58535863	81,89	13,05
18.04.2013 14:00	117	9184	0	97350	66819	5345928	603	58633211	82,64	15,32
18.04.2013 15:00	152	11856	0	133365	66971	5357784	603	58766576	78,69	12,64
18.04.2013 16:00	179	14320	0	152186	67150	5372104	603	58918763	78,55	15,52
18.04.2013 17:00	130	10400	0	108498	67280	5382504	603	59027260	79,49	11,44
18.04.2013 18:00	114	9006	0	96957	67394	5391510	603	59124217	79,35	11,61
18.04.2013 19:00	196	15288	0	175616	67590	5406798	603	59299833	82,68	11,56
18.04.2013 20:00	189	14931	0	163806	67779	5421729	603	59463635	80,07	11,22
18.04.2013 21:00	179	14320	0	149895	67958	5436049	603	59613534	82,91	15,0
18.04.2013 22:00	116	9280	0	105792	68074	5445329	603	59719326	82,86	14,15
18.04.2013 23:00	195	15795	13	168480	68269	5461124	616	59887806	82,11	13,18
19.04.2013 00:00	176	14432	0	151114	68445	5475556	616	60038920	78,09	12,15
19.04.2013 01:00	142	11502	0	131123	68587	5487058	616	60170043	82,43	12,17
19.04.2013 02:00	100	8100	0	84240	68687	5495158	616	60254283	79,03	11,53
19.04.2013 03:00	141	10998	0	124489	68828	5506156	616	60378772	82,11	14,65
19.04.2013 04:00	118	9440	0	101244	68946	5515596	616	60480016	79,21	13,5
19.04.2013 05:00	125	10000	0	109612	69071	5525596	616	60589628	81,54	14,03
19.04.2013 06:00	109	8938	10	98165	69180	5534534	626	60687793	82,78	15,56
Consumption/Average	3622	288887	23	3157021	3622	288887	23	3157021	80,6712	13,294
Minimum	100	8100	0	84240	100	8100	0	84240	78,07	11,22
Advantation of the second	100	117304	43	176010	100	117904	43	170000	43.01	

Script Based Exporting

In addition to output as a report, GM-A supports common ASCII export formats such as CSV, but also defined interfaces such as MSCONS.The export format can be adapted through the stored script language.



Automation

The output of the data - whether as a report or as an export - can be automated. In addition to the point in time, the automation also includes the area of the data to be exported (e.g. the current month, extended day by day) and the storage format, possibly printer, directory or even FTP.

GAS METERING MONITOR

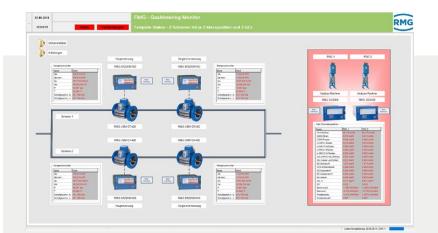


Gas Metering Monitor - GM-M

The task of the Gas Metering Monitor software is to encapsulate the complex interrelationships in a system and to present them clearly.

Data is read out, evaluated and graphically processed via various possible input interfaces.

The graphical output is freely scalable. Reading out messages and archives, historizing instantaneous values and various output interfaces are just some of the functions that make the software the ideal visualization for complex measurement situations.



Evaluation of Real-Time Data

The data can be arranged in any way on graphical interfaces and represented, for example, as individual values, tables, status information with traffic light function, etc. Complex calculations can be carried out using the integrated calculator. The most important parameters can be monitored via performance monitoring and an alarm can be issued if they are exceeded.

Description	Value	Description	Value	Description	Value	
Current entity	02	Current entity	W1	Current entity	Ģ	
Current address	A	Current address	Y	Current address	T	
Version offic, kernel	1.8	Version offic. kernel	SSK.V240406	Version offic. kernel	2.000 (20.04.2009)	
Manufacturer	RMG Messtechnik	Manufacturer	RMG Messtechnik	Manufacturer	RMG Messtechnik	
Device family	ERZ 2000	Device family	MR92203A	Device family	POC	
Date and time	17/09/2009 15:12:05	Date and time	17/09/2009 15:12:17	Date and time	17/09/2009 15:13:40	
Time zone DS/G	S	Time zone DSfG	S	Time zone DSfG	S	
Time zone change	29/03/2009 03:00:00	Time zone change	29/03/2009 02:00:00	Time zone change	29/03/2009 02:00:00	
Last calbration	01/01/1970 01:00:00	Last calibration	28/07/2009 10 44 33	Last calibration	02/09/2009 10 14 09	
Battery change	01/01/1970 01:00:00	Battery change	?	Battery change	02/09/2009 10:14:09	
ast update: 17/09/2009 15:1	2:30	Last update: 17/09/2009 15:12	230	Last update: 17/09/2009 15:12:30		

Description	Metric value	Imperial value
Energy Flow	2506320.5000 KW	2506.3285 M/V
Standard Volume Flow	233882.8906 m³/h	8259496.3985 ft*/h
Volume Flow (under operating conditions)	8174.1177 m ³ /h	288868 2446 fl*/h
Pressure	32.23 bar	467.46 poi
Temperature	45.2 °C	113.4 °F
VB (Volume at operating conditions)	89139639 m ³	3147936667.7852 ft3
VN (Volume at base conditions)	2555344050 m ^a	90241124196.1814 ftª
Energy	20290432244 kWh	96550257074533.7500

Description	Value
Methane (CH4)	07.013 Mole%
Ethane [C2H6]	4.227 Mole%
Propane [C3H8]	1.058 Mole%
2-Methylpropane [i-C4H10]	0.214 Mole%
n-Bulane (n-C4H10)	0.213 Mole%
2-Methylbutane [i-C5H12]	0.054 Mole%
n-Pentane (n-C5H12)	0.054 Mole%
2,2-Dimethylpropane [neo-CSH12]	0.000 Mole%
Hexane [C6]	0.053 Mole%
Carbon dioxide [CO2]	1.578 Mole%
Ntrogen [N2]	4.208 Mole%

Data Hub apart from the Presentation

The various input and output interfaces can also be used without a graphical representation to centrally read out and save data and make them available to other systems. Common use cases are forwarding of DSfG data via Modbus or IEC60870-5 (Telemetry Data Manager - TDM).

RMG GAS METERING MANAGEMENT AT A GLANCE

Gas Metering Monitor Station monitoring	Gas Metering Analysis Data collection and evaluation	Gas Metering Terminal Configuration, parameterisation and maintenance tool
Device status ✓ Schematic diagram representation ✓ Display of current values ✓ Current device status ✓ Documentation for the devices Alerting ✓ Logging and reports ✓ Alarms ✓ Device status Trends ✓ Graphs ✓ Tables	 Data calculation Intelligent planning tool integrated in the system √Various communication channels Data processing ✓Data check ✓Data check ✓Representation of calculations ✓Customer-specific transmissions ✓SQL database MEB access ✓Customer-specific representation ✓Various formats ✓Customer-specific transmission 	 Device display view ✓ View of the device display or display representation ✓ Individual device representation or system bus representation Control ✓ Switch control ✓ Local or remote access to the device ✓ Status information Special functions ✓ Saving of the process ✓ Analysis of statuses and errors ✓ Device-specific functions

Local communications

Remote communication



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