Next Generation
red-y compact:
....
AA Battery Powered
Touch Technology
USB Enabled

red-y

324.82
AIR   mln/min
Tot: 233467.82 ln
✚ swiss made   red-y compact series by **vögtlin**

red-y

284.38
CO2   mln/min
Tot: 33476.28 ln
✚ swiss made   red-y compact series by **vögtlin**

red-y compact series product information

Battery Powered Digital Mass Flow Meters for Gases

vögtlin
instruments

Independent digital convenience:
Thermal Mass Flow Meters for Gases

The mass flow meters *red-y compact series* are characterized by powerful technology, intelligent functions and innovative design.
The 2015 instrument generation offers a new level of ease of use: compact design with battery power and backlit touch display for great flexibility.

Touch Technology
The touch display offers intuitive navigation.
The many variables that make the unit flexible are easily accessible

Independent Operation
The flow meters are powered with a standard AA battery. Optional 24Vdc and Micro-USB power supply available

USB Enabled
The instruments can be powered with any common Micro-USB power supply (DIN62684). Device updates can be performed using the USB interface

High Accuracy & Dynamics
The devices offer high accuracy & a wide dynamic range:
Accuracy up to ±1% of full scale
Turndown ratio up to 1 : 100
(depending on application/measuring range)

Totalizer
In addition to the actual flow, the total consumption is displayed. Ideal for gas consumption measurements

1 Device – Multiple Gases
One measuring device can be used for up to 3 different gases or gas mixtures

Password Protection
To avoid unauthorised change of settings, the menu of the new red-y compact can be locked with a password

3-Year Warranty*
High-quality components ensure long and trouble-free operation
*does not apply to calibration, battery, options and accessories

Instrument versions ‹red-y compact series›

Version	Touch Display	Choose between multiple home screens	Totalizer	Multigas (up to 3)	Manual valve	Alarm functions	Mirco-USB power supply	Battery power	24 Vdc supply
Available Q2/2015									
compact meter GCM	●	●	●	○			●	●	○
compact regulator GCR	●	●	●	○	●		●	●	○
Available end of 2015									
compact switch GCS	●	●	●	○		●	●		●
compact all-in GCA	●	●	●	○	●	●	●		●

(Power supply columns: Mirco-USB power supply, Battery power, 24 Vdc supply)

● Standard   ○ Option

swiss TS
Certified System
ISO 9001

The new red-y compact 2015 release – Even more stunning features:

» **Wide Choice of Flow Units:**
Choose between a large number of **standardized** and **normalized flow units** of the **Imperial, US customary** and **SI** measuring systems (user adjustable reference conditions). The units are selectable from the integrated menu both for the actual flow and the totalized flow

» **Extended Alarm Functions*:**
The new red-y compact provides 3 configurable alarms. The following triggers are available:
Min. alarm, max. alarm, windows alarm, overflow alarm and **totalizer alarm**
The alarms can be configured with different parameters:
Normally open, normally closed, hysteresis and **auto/manual reset**

» **Device Information & Notifications**
Display of complete device information including all configuration settings. Alerts and notifications show up on the home screen

» **Upgrade Device Features**
New device features will be available and can be updated trough the built-in USB interface. Stay informed on latest releases at
twitter.com/vogtlinmassflow or **www.voegtlin.com**

*available end of 2015

VA-Meters vs. Massflow Meters

Many applications require a higher accuracy together with pressure and temperature compensation which cannot be realized with conventional variable area flow meters.

VA-meters are extremely sensitive to pressure and temperature changes. 1 bar change in pressure can generate an error of 50% in your measurement. Our mass flow meters generate repeatability!

Autonomy, precision and comfort for your application

Through the application of **high-precision MEMS technology** (CMOS sensors), the thermal flow meters and controllers from Vögtlin Instruments AG set new standards in terms of response characteristics and measuring accuracy, and are characterized by maximum convenience:

» **The devices are very compact, can be installed in any position, and are immediately ready for operation**
» **The built-in touch display with an intuitive navigation offers various settings**
» **The devices measure real mass flow, independent of changes in pressure and temperature. This provides high accuracy and repeatability to the measuring results**
» **In addition to the actual value, the total consumption is displayed. This creates transparency in supply systems**
» **The autonomous operation with a standard AA battery makes the compact a high-precision alternative to variable area flow meters**
» **High quality: All flow meters are produced and calibrated at our headquarters in Aesch, Switzerland**

Our specialists will be happy to advise: +41 61 756 63 00 or **www.voegtlin.com**

Technical data ‹red-y compact series›

Instrument types

compact meter GCM
Mass Flow Meter
compact switch GCS
Mass Flow Meter with Alarm Functions

compact regulator GCR
Mass Flow Meter with manual Valve
compact all-in GCA
Mass Flow Meter with Alarm Functions & Valve

compact G½" versions
The valve is flange mounted

Measuring ranges

(full scale freely selectable)	Type	Measuring range (air)		Connection
	GC**X**-A	from 0 ... 50 mln/min	to 0 ... 600 mln/min	G¼"
	GC**X**-B	from 0 ... 600 mln/min	to 0 ... 6000 mln/min	G¼"
	GC**X**-C	from 0 ... 6 ln/min	to 0 ... 60 ln/min	G¼"
	GC**X**-D	from 0 ... 60 ln/min	to 0 ... 450 ln/min	G½"

Performance data

Media (real gas calibration)	Air, O2*, N2*, He, Ar, CO2, H2, CH4, C3H8 (other gases and gas mixtures on request) *O2 & N2 are calibrated with air. Our factor to air is almost 1 thus we can achieve our highest accuracy with air calibration
Accuracy (air & equivalents)	Eco: ± 2.0% of full scale; ranges > 200 ln/min ± 3.0% of full scale Special: ± 1.0% of full scale up to 50 ln/min
Turndown ratio	Eco: 1 : 50 Special: 1 : 100
Response time	from 500 ms (depending on the application)
Repeatability	± 0.5% of full scale
Longterm stability	< 1% of measured value / year
Power supply Meter & Regulator	Standard AA battery (lifetime in months depending on operation) or Micro-USB power supply (DIN 62684) Option: External power +12...24 Vdc (required current power supply 30 mA or higher)
Power supply Switch & All-in	External power +12...24 Vdc (required current power supply 30 mA or higher) or Micro-USB power supply (DIN 62684)
Operation pressure	0.2 – 11 bar a
Temperature (environment/gas)	0 – 50°C
Materials	Anodized aluminium, optional stainless steel electropolished
Seals	FKM, optional EPDM (FDA)
Pressure sensitivity	< 0.2% / bar of reading (typical N2)
Temperature sensitivity	< 0.025% FS measuring range type / °C
Warm-up time	< 1 sec. for full accuracy

Integration

Display	Touch display 128x64 px Backlighted only with external power supply (Micro-USB or 24 Vdc)
Process connection	G¼" (BSPP* female) up to 60 ln/min, G½" (BSPP* female) up to 450 ln/min *British Standard Pipe Parallel
Inlet section	None required
Mounting orientation	Any position (consult manufacturer above 5 bar / vertical mounting)
Connection cable	For external power supply: 2 m and 5 m with loose ends

Safety

Test pressure	16 bar a
Leak rate	< 1 x 10^{-6} mbar l/s He
Environmental protection	IP-50
EMC	EN 61326-1

Options

Panel Mounting Kit

Vacuum Fittings

Various Inlet and Outlet Fittings

Type code ‹red-y compact series›

Instrument type	red-y compact series (Gas)	G	C								
Function	Meter		M								
	Regulator – With manual valve		R								
	Switch* – With alarm		S								
	All-In* – With manual valve & alarm		A								
Full scale of measuring range (Air)	Customer-specific (Divider A, up to 600 mln/min)			A	X						
	Customer-specific (Divider B, up to 6000 mln/min)			B	X						
	Customer-specific (Divider C, up to 60 ln/min)			C	X						
	Customer-specific (Divider D, up to 450 ln/min)			D	X						
Instruments version	Eco (±2.0% of FS / > 200 ln/min ±3.0% of FS, 1 : 50)					E					
	Special (±1.0% of FS, 1 : 100)					S					
	Customer-specific / OEM					K					
Materials (Body, seals)	Aluminium, FKM						A				
	Aluminium, EPDM						B				
	Stainless steel, FKM						S				
	Stainless steel, EPDM						T				
	Customer-specific / OEM						K				
Supply (Micro-USB always available)	Battery Supply							B			
	External supply 24 Vdc							F			
	Customer-specific / OEM							K			
Material valve (regulator, all-in)	Nickel-plated brass								A		
	Stainless steel								S		
	Customer-specific / OEM								K		
	No valve								N		
Manual valve defined by manufacturer	NS 1.0									1	0
	NS 1.5									1	5
	NS 2.0									2	0
	NS 2.5									2	5
	NS 3.0									3	0
	NS 3.5									3	5
	NS 4.0									4	0
	NS 6.0									6	5
	Valve not defined									8	8
	Valve mounted									9	5
	Customer-specific / OEM									9	9
	No valve									0	0
Type code		G	C	–					–		

*available end of 2015

Dimensions ‹red-y compact series›
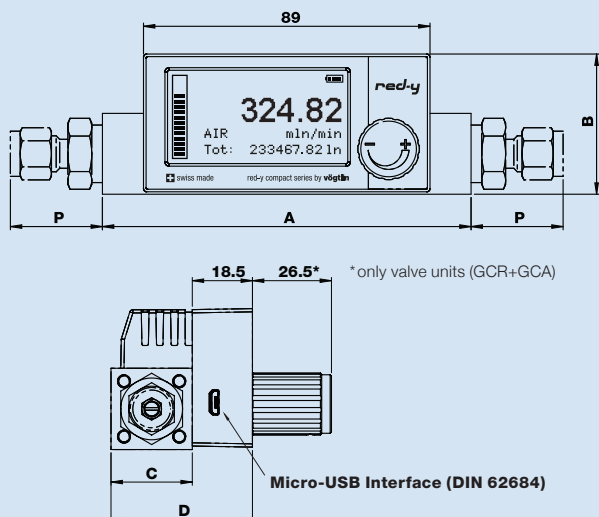
Type/Body	Length (mm)				Length of fitting
	A	**B**	**C**	**D**	**P**
GCM G¼" **GCR G¼"** **GCS G¼"** **GCA G¼"**	114	44	25	44	We offer a range of different inlet/outlet fittings. See document **329-2092_en_ fittings.pdf** for types and dimensions
GCM G½" **GCS G½"**	160	54	35	54	
GCR G½" **GCA G½"**	207	54	35	54	

Find more detailed drawings in the *red-y compact series* manual available on **www.voegtlin.com/downloads**