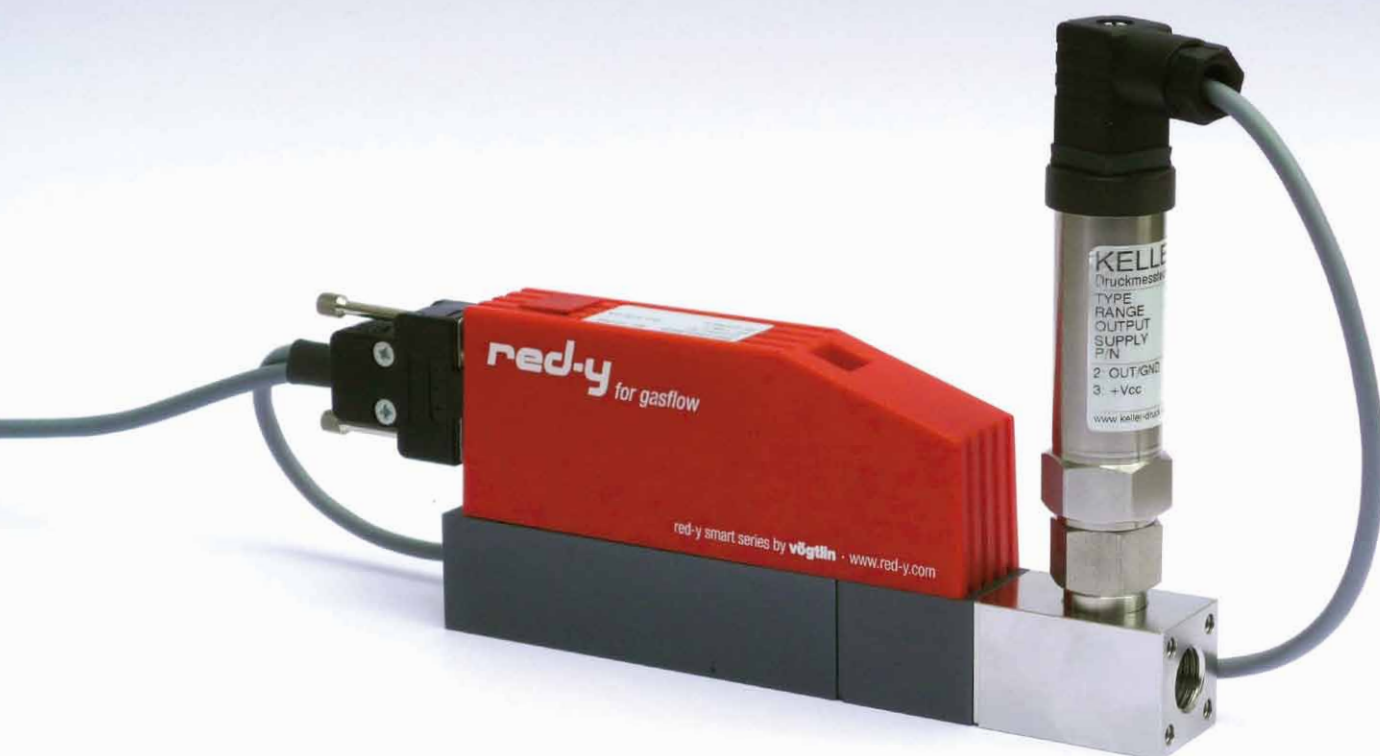


red-y smart pressure controller product information



Electronic pressure controller with integrated flow measurement

Pressure and flow in a single device:

Electronic pressure controller for gases with integrated flow measurement

The new electronic red-y smart pressure controllers combine the reliable technology our of thermal mass flow controllers with electronic pressure control.

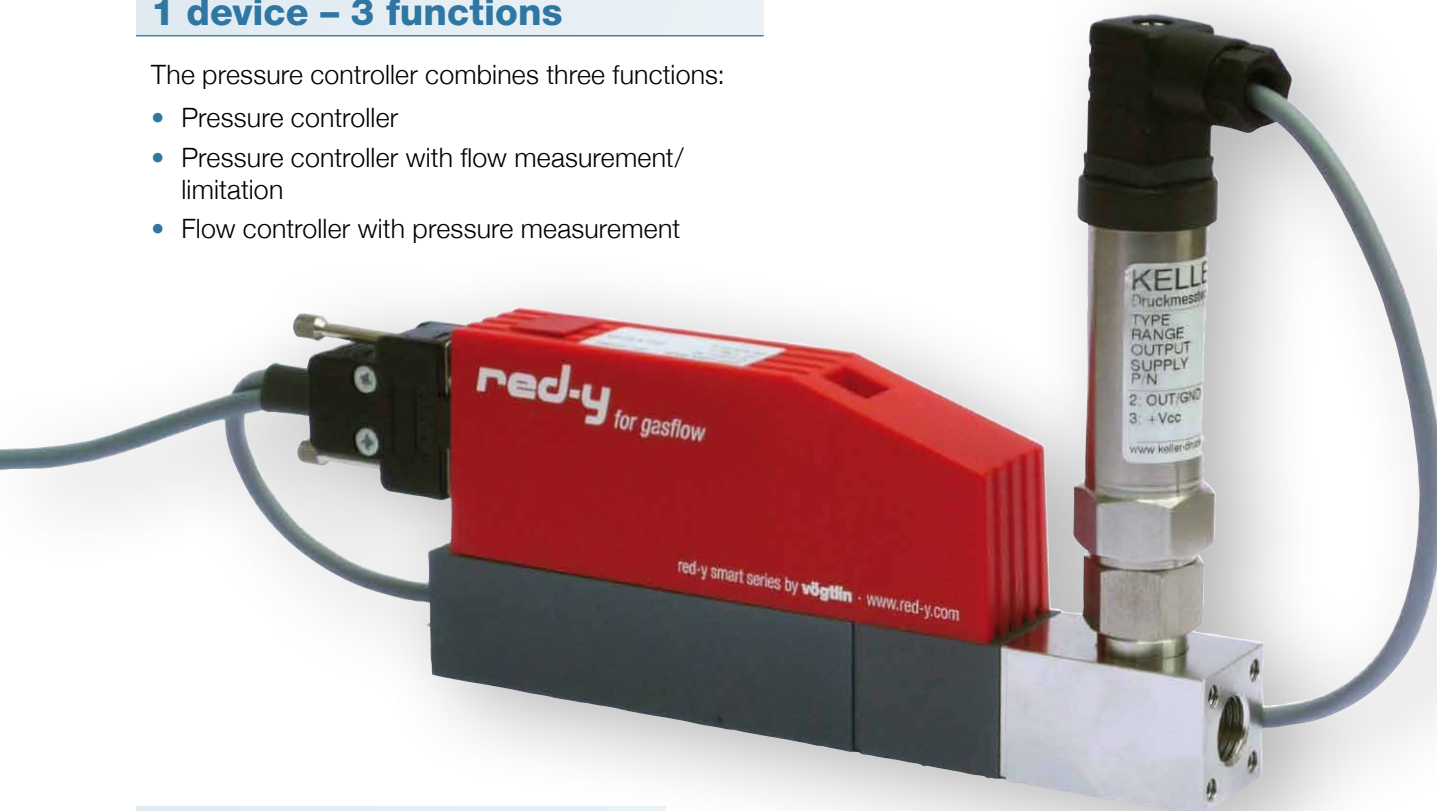
The devices automatically control a predefined process pressure and at the same time measure and/or limit the flow rate.

On-the-fly switching between pressure control and flow control offers maximum flexibility.

1 device – 3 functions

The pressure controller combines three functions:

- Pressure controller
- Pressure controller with flow measurement/limitation
- Flow controller with pressure measurement



Instrument versions

- Integrated pressure control
Accuracy: ± 0.5 % of full scale
- Integrated back pressure control
Accuracy: ± 0.5 % of full scale
- Pressure control with external pressure transmitters
- Pressure controller with gas mixer function



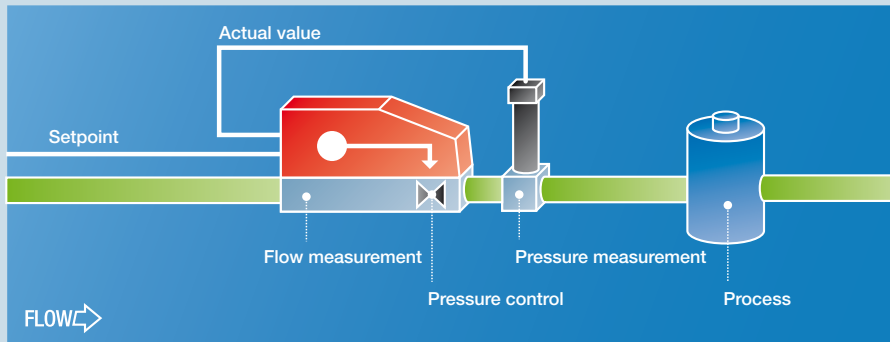
It's a red-y smart

The pressure controllers combine the innovative equipment design of the red-y smart series with the development competence of Vögtlin Instruments AG.

High-quality components ensure long and trouble-free operation.

Pressure control

In this application the electronic pressure controller regulates a digitally specified set pressure value. The flow rate depends on the process consumption. Maximum flow limitation enables pressure control of stable gas mixtures, for example.

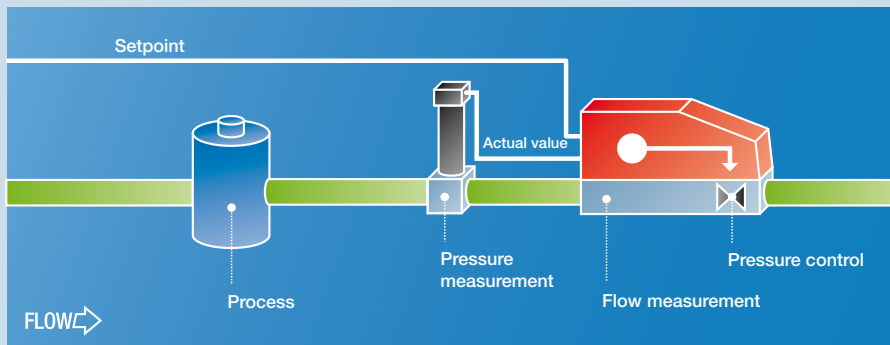


Application example:

Pressure control of a pressure vessel containing a stable gas mixture for laser gas or welding applications.

Back pressure control

In this configuration the effect of the control valve is reversed. The process generates a certain pressure, which must be readjusted.



Application example:

Overpressure control of a sterile chamber. The flow rate is used as a leakage indicator.

Wide range of accessories – ready for operation

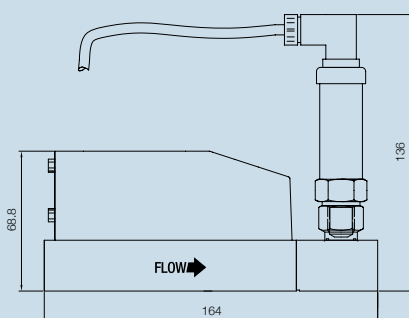
Connection cables, power supplies, software «get red-y»

Optimal range of cables and power supply units for fast integration of the pressure controllers. With the free software «get red-y» you can easily define functions and parameters.

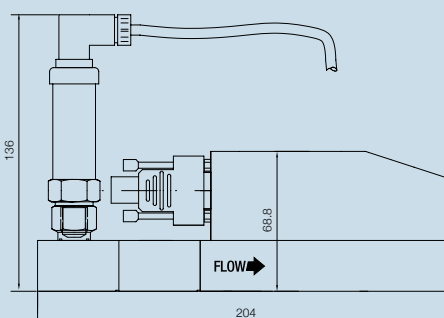
Fittings, filters

All flow meters and controllers are available with fittings and filters.

Dimensions G $\frac{1}{4}$ " *





red-y smart pressure controller GSP



red-y smart back pressure controller GSB

*Dimensions G $\frac{1}{2}$ " on request

Technical Data «red-y smart pressure controller»

Instrument types					
	red-y smart pressure controller GSP <i>Electronic pressure controller</i>		red-y smart back pressure controller GSB <i>Electronic back pressure controller</i>		
	Pressure controller with external transmitter and customer-specific solutions on request				
Instrument versions flow	«Standard» – The economic solution				
	Accuracy: ± 1.0 % of full scale Turndown ratio: 1 : 50				
	«Hi-Performance» – With highest accuracy and turndown ratio Accuracy: ± 0.3 % of full scale + ± 0.5% of reading Turndown ratio: 1 : 100 for GSM < 200 l/min / GSC < 150 l/min (air)				
Instrument versions pressure	Pressure control				
	Accuracy: ± 0.5 % of full scale				
	Back pressure control Accuracy: ± 0.5 % of full scale				
Measuring ranges flow (Air)	Differential pressure controller according to customer specifications				
	Full scale freely selectable pressure controller GSP back pressure controller GSB	Type	Measuring range (Air)		Connection
		GSX-A	from 0 ... 25 ml/min	to 0 ... 600 ml/min	G¼"
GSX-B		from 0 ... 600 ml/min	to 0 ... 6000 ml/min	G¼"	
GSX-C		from 0 ... 6 l/min	to 0 ... 60 l/min	G¼"	
GSX-D		from 0 ... 60 l/min	to 0 ... 450 l/min	G½"	
Other ranges on request					
Measuring ranges pressure	Full scale gauge pressure				
	Full scale absolute pressure				
Performance data	Media (real gas calibration)				
	Air, O2, N2, He, Ar, CO2, H2, CH4, C3H8 Other gases and gas mixtures on request				
	Response time				
	50 ms				
	Repeatability				
	± 0.2% of full scale				
	Longterm stability				
	< 1% of measured value / year				
	Power supply				
	24 Vdc (18 – 30 Vdc), 15 Vdc on request				
	Current consumption				
	max. 250mA				
	Temperature (environment/gas)				
	0 – 50°C				
	Integration	Materials			
Anodized aluminium, optional stainless steel electropolished					
Seals					
FKM, optional EPDM					
Pressure sensitivity					
< 0.2% / bar of reading (typical N2)					
Temperature sensitivity					
< 0.025% FS measuring range type / °C					
Output signals					
<i>analog</i> <i>(for actual value flow only)</i>					
Safety	0..20 mA, 4..20 mA, 0.5 V, 1.5 V, 0..10 V, 2..10 V				
	<i>digital</i> <i>(for pressure and flow)</i>				
	RS-485; Modbus RTU (Slave); Lab View-VI's available Option: ProfiBus DP-V0, DP-V1				
	Process connection				
	G¼" female less than 60 l/min, G½" female less than 450 l/min				
	Inlet section				
	None required				
	Electrical connection				
	Sub D plug, 9 pole				
	Mounting orientation				
Any orientation (horizontal only above 5 bar)					
Safety	Test pressure				
	16 bar a				
	Leak rate				
	< 1 x 10 ⁻⁶ mbar l/s He				
	Environmental protection				
	IP-50				
	EMC				
	EN 61326-1				

Type code «red-y smart pressure controller»

Instrument type	red-y smart series (Gas)	G	S																	
Function	Pressure controller					P														
	Back pressure controller					B														
	With external pressure transmitter					K														
Full scale of measuring range (Air)	25 mln/min (G¼", 25 x 25mm)						A	1												
	50 mln/min						A	2												
	100 mln/min						A	3												
	200 mln/min						A	4												
	500 mln/min						A	5												
	Customer-specific (Divider A, up to 600mln/min)						A	9												
	500 mln/min (G¼", 25 x 25mm)						B	2												
	1000 mln/min						B	3												
	2000 mln/min						B	4												
	5000 mln/min						B	5												
	Customer-specific (Divider B, up to 6'000mln/min)						B	9												
	5 ln/min (G¼", 25 x 25mm)						C	2												
	10 ln/min						C	3												
	20 ln/min						C	4												
	50 ln/min						C	5												
	Customer-specific (Divider C, up to 60 ln/min)						C	9												
	50 ln/min (G½", 35 x 35mm)						D	2												
	100 ln/min						D	3												
	200 ln/min						D	4												
	450 ln/min						D	5												
	Customer-specific (Divider D, up to 450ln/min)						D	9												
Instruments version	Standard (±1.0% full scale, 1 : 50)							S												
	Hi-Performance (±0.3% full scale, ±0.5% reading, 1 : 100)							T												
	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												
Analog signals (Output)	Current 4..20 mA**															B				
	Current 0..20 mA															C				
	Voltage 0..5 V															D				
	Voltage 1..5 V															E				
	Voltage 0..10 V															F				
	Voltage 2..10 V															G				
	Customer-specific / OEM															K				
Analog output signals pressure transmitter	Current 4..20 mA**																B			
	Current 0..20 mA																C			
	Voltage 0..5 V																D			
	Voltage 1..5 V																E			
	Voltage 0..10 V																F			
	Voltage 2..10 V																G			
	Not defined																N			
	Customer-specific / OEM																K			
Control valve (integrated)	Nozzle 0.1 mm																	2	1	
<i>defined by manufacturer</i>	Nozzle 0.2 mm																	2	2	
	Nozzle 0.5 mm																	2	3	
	Nozzle 1.2 mm																	2	6	
	Nozzle 4.5 mm																	1	2	
	Nozzle 8.0 mm																	1	3	
	Valve not defined																	8	8	
	Valve mounted																	9	5	
	Customer-specific / OEM																	9	9	
	No valve																	0	0	
Type code		G	S				-									-				

**Standard