🖶 swiss made

red-y smart pressure controller product information



Electronic pressure controller with integrated flow measurement



In Partnership with



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

red-y for gastiow

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.

ICENTA

Tel: +44 (0)1722 439880





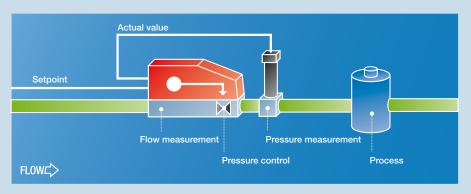
Email: Sales@icenta.co.uk

art series by **vögtlin**

www.red-y.com

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.

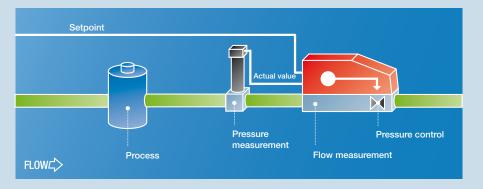


Application example:

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

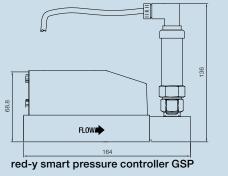
Connection cables, power supplies, software «get red-y»

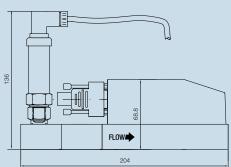
Optimal range of cables and power supply units for fast integration of the pressure controllers. With the free software «get red-y» you can easily define functions and parameters.

Fittings, filters

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

Dimensions G¹/4" *





red-y smart back pressure controller GSB

*Dimensions G1/2" on request

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Technical Data (red-y smart pressure controller)

Instrument types											
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	a red-y	ALC: NO POINT									
			Ped-y trante								
			A STATE AND A STATE AND A STATE								
		.e.	0								
	red-y smart pressure controlle	r GSP	red-y smart back pressure controller GSB								
	Electronic pressure controller		Electronic back pressure controller								
			·								
			customer-specific solutions on request								
Instrument versions flow	Standard - The economic solution										
	Accuracy: $\pm 1.0 \%$ of full scale										
		Turndown ratio: 1:50 Hi-Performance – With highest accuracy and turndown ratio									
	0	-									
	Accuracy: ± 0.3 % of full scale + ± 0.5 % of readingTurndown ratio:1 : 100										
		for GSM < 200 ln/min / GSC < 150 ln/min (air)									
Instrument versions pressure	Pressure control										
	Accuracy: ± 0.5 % of full	scale									
	Back pressure control Accuracy: ± 0.5 % of full scale										
	Differential pressure controller		stomer specifications								
Measuring ranges flow (Air)	Full scale freely selectable		ing range (Air) Connection								
	pressure controller GSP	GSX-A from	0 25 mln/min to 0 600 mln/min G1/4"								
	back pressure controller GSB		0 600 mln/min to 0 6000 mln/min G1/4" 0 6 ln/min to 0 60 ln/min G1/4"								
			0 60 ln/min to 0 450 ln/min G1/2"								
		Other ranges on	request								
Measuring ranges pressure	Full scale gauge pressure		g, 2 bar g, 5 bar g, 10 bar g								
	Full scale absolute pressure										
Performance data	Media (real gas calibration)										
	Response time										
	Repeatability	50 ms	a, 2 bar a, 5 bar a, 10 bar a N2, He, Ar, CO2, H2, CH4, C3H8 uses and gas mixtures on request								
	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)										
	iemperature (environment/gas)	0 – 50°C									
	Materials		ium, optional stainless steel electropolished								
	Materials	Anodized alumin FKM, optional EF									
	Materials Seals	Anodized alumin FKM, optional EF < 0.2% / bar of re	PDM								
Integration	Materials Seals Pressure sensitivity Temperature sensitivity Output signals	Anodized alumin FKM, optional EF < 0.2% / bar of re < 0.025% FS me	PDM eading (typical N2) asuring range type / °C								
Integration	Materials Seals Pressure sensitivity Temperature sensitivity Output signals analog	Anodized alumin FKM, optional EF < 0.2% / bar of re < 0.025% FS me	PDM eading (typical N2)								
Integration	Materials Seals Pressure sensitivity Temperature sensitivity Output signals analog (for actual value flow only)	Anodized alumin FKM, optional EF < 0.2% / bar of re < 0.025% FS me 020 mA, 420 m	PDM eading (typical N2) asuring range type / °C nA, 05 V, 15 V, 010 V, 210 V								
Integration	MaterialsSealsPressure sensitivityTemperature sensitivityOutput signalsanalog(for actual value flow only)digital	Anodized alumin FKM, optional EF < 0.2% / bar of re < 0.025% FS me 020 mA, 420 m RS-485; Modbus	PDM eading (typical N2) asuring range type / °C nA, 05 V, 15 V, 010 V, 210 V s RTU (Slave); Lab View-VI's available								
Integration	Materials Seals Pressure sensitivity Temperature sensitivity Output signals analog (for actual value flow only)	Anodized alumin FKM, optional EF < 0.2% / bar of re < 0.025% FS me 020 mA, 420 r RS-485; Modbus Option: ProfiBus	PDM eading (typical N2) asuring range type / °C nA, 05 V, 15 V, 010 V, 210 V s RTU (Slave); Lab View-VI's available DP-V0, DP-V1								
Integration	MaterialsSealsPressure sensitivityTemperature sensitivityOutput signalsanalog(for actual value flow only)digital(for pressure and flow)	Anodized alumin FKM, optional EF < 0.2% / bar of re < 0.025% FS me 020 mA, 420 m RS-485; Modbus Option: ProfiBus G¼" female less	PDM eading (typical N2) asuring range type / °C nA, 05 V, 15 V, 010 V, 210 V s RTU (Slave); Lab View-VI's available								
Integration	Materials Seals Pressure sensitivity Temperature sensitivity Output signals analog (for actual value flow only) digital (for pressure and flow) Process connection	Anodized alumin FKM, optional EF < 0.2% / bar of re < 0.025% FS me 020 mA, 420 r RS-485; Modbus Option: ProfiBus	PDM eading (typical N2) asuring range type / °C nA, 05 V, 15 V, 010 V, 210 V s RTU (Slave); Lab View-VI's available DP-V0, DP-V1 than 60 ln/min, G½" female less than 450 ln/min								
Integration	MaterialsSealsPressure sensitivityTemperature sensitivityOutput signalsanalog(for actual value flow only)digital(for pressure and flow)Process connectionInlet section	Anodized alumin FKM, optional EF < 0.2% / bar of re < 0.025% FS me 020 mA, 420 m RS-485; Modbus Option: ProfiBus G¼" female less None required Sub D plug, 9 po	PDM eading (typical N2) asuring range type / °C nA, 05 V, 15 V, 010 V, 210 V s RTU (Slave); Lab View-VI's available DP-V0, DP-V1 than 60 ln/min, G1/2" female less than 450 ln/min								
Integration	MaterialsSealsPressure sensitivityTemperature sensitivityOutput signalsanalog(for actual value flow only)digital(for pressure and flow)Process connectionInlet sectionElectrical connection	Anodized alumin FKM, optional EF < 0.2% / bar of re < 0.025% FS me 020 mA, 420 m RS-485; Modbus Option: ProfiBus G¼" female less None required Sub D plug, 9 po	PDM eading (typical N2) asuring range type / °C nA, 05 V, 15 V, 010 V, 210 V s RTU (Slave); Lab View-VI's available DP-V0, DP-V1 than 60 In/min, G½" female less than 450 In/min								
	MaterialsSealsPressure sensitivityTemperature sensitivityOutput signalsanalog(for actual value flow only)digital(for pressure and flow)Process connectionInlet sectionElectrical connectionMounting orientation	Anodized alumin FKM, optional EF < 0.2% / bar of re < 0.025% FS me 020 mA, 420 m RS-485; Modbus Option: ProfiBus G¼" female less None required Sub D plug, 9 po Any orientation (f	PDM eading (typical N2) asuring range type / °C nA, 05 V, 15 V, 010 V, 210 V s RTU (Slave); Lab View-VI's available DP-V0, DP-V1 than 60 ln/min, G½" female less than 450 ln/min le norizontal only above 5 bar)								
	MaterialsSealsPressure sensitivityTemperature sensitivityOutput signalsanalog(for actual value flow only)digital(for pressure and flow)Process connectionInlet sectionElectrical connectionMounting orientationTest pressure	Anodized alumin FKM, optional EF < 0.2% / bar of re < 0.025% FS me 020 mA, 420 r RS-485; Modbus Option: ProfiBus G¼" female less None required Sub D plug, 9 po Any orientation (fr 16 bar a	PDM eading (typical N2) asuring range type / °C nA, 05 V, 15 V, 010 V, 210 V s RTU (Slave); Lab View-VI's available DP-V0, DP-V1 than 60 ln/min, G½" female less than 450 ln/min le norizontal only above 5 bar)								

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Type code (red-y smart pressure controller)

Instrument type	red-y smart series (Gas)	G	S									
Function	Pressure controller			Ρ								
	Back pressure controller			в								
	With external pressure transmitter			Κ								
Full scale of measuring range (Air)	25 mln/min (G1⁄4", 25 x 25mm)				А	1						
	50 mln/min				Α	2						
	100 mln/min				А	3						
	200 mln/min				А	4						
	500 mln/min				А	5						
	Customer-specific (Divider A, up to 600mln/min)				А	9						
	500 mln/min (G¼", 25 x 25mm)				в	2						
	1000 mln/min				в	3						
	2000 mln/min				в	4						
	5000 mln/min				в	5						
	Customer-specific (Divider B, up to 6'000mln/min)				в	9						
	5 ln/min (G1/4", 25 x 25mm)				С	2						
	10 ln/min				С	3						
	20 ln/min				С	4						
	50 ln/min				С	5						
	Customer-specific (Divider C, up to 60 ln/min)				С	9						
	50 ln/min (G½", 35 x 35mm)				D	2						
	100 ln/min				D	3						
	200 In/min				D	4						
	450 In/min				D	5						
	Customer-specific (Divider D, up to 450In/min)				D	9						
Instruments version						J	s					
	Standard (±1.0% full sciale, 1 : 50)						т					
	Hi-Performance ($\pm 0.3\%$ full scale, $\pm 0.5\%$ reading, 1 : 100)						ĸ					
Materials (Body, seals)	Customer-specific / OEM							А				
Materials (Douy, seals)	Aluminium, FKM**							В				
	Aluminium, EPDM							S				
	Stainless steel, FKM							Т				
	Stainless steel, EPDM							ĸ				
	Customer-specific / OEM								Р			
Analog signals (Output)	Current 420 mA**								В			
	Current 020 mA								C			
	Voltage 05 V								D			
	Voltage 15 V								E			
	Voltage 010 V								F			
	Voltage 210 V								G			
	Customer-specific / OEM								к	_		
Analog output signals pressure transmitter	Current 420 mA**									В		
	Current 020 mA									C		
	Voltage 05 V									D		
	Voltage 15 V									E		
	Voltage 010 V									F		
	Voltage 210 V									G		
	Not defined									Ν		
	Customer-specific / OEM									К		
Control valve (integrated)	Nozzle 0.1 mm										2	
defined by manufacturer	Nozzle 0.2 mm										2	
	Nozzle 0.5 mm										2	
	Nozzle 1.2 mm										2	
	Nozzle 4.5 mm										1	
	Nozzle 8.0 mm										1	
	Valve not defined										8	
	Valve mounted										9	
	Customer-specific / OEM										9	
	No valve										0	

**Standard

Email: Sales@icenta.co.uk

www.icenta.co.uk

Ιςεντα

flow technology by vögtlin



Tel: +44 (0)1722 439880





Email: Sales@icenta.co.uk

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