# DOME PRESSURE REGULATOR SET 767 LE/S Complete solution, own-medium controlled









# NEW – now also as 767LE/S Smart!

High performance dome-loaded pressure regulator set. For high and varying flows requiring maximum pressure stability.

### **Features**

# • Pilot Control Tube (PCT)

One of the features enabling highly accurate control of outlet pressure

# • Balanced Seat Design (BSD)

Further enabling control precision, high reliability and low maintenance

### A complete solution, ready to use

With integrated pilot pressure regulator, and stainless steel pressure gauges, completely assembled and tested

## • Own-medium controlled

Enabling autonomous operation (no separate gas supply required)

## Closed system

self-relieving design, but no gas is released to atmosphere

# • Simple to install and operate

Removable spindle enables simple setting of the required outlet pressure
Can be positioned at any angle / orientation
For indoor and outdoor installation.

 glycerine-filled manometer, unfilled version for oxygen

# Operation / Usage

Ideal for process gas supply where pressure accuracy is required even when inlet pressures and flow rates are varying.

High flow rates and outlet pressure accuracy are achieved, even when the difference between inlet and outlet pressures is small.

# Maintenance

Depending on application, moving wetted parts may need replacement every 1-3 years.

For this we offer our Maintenance Set with original spare parts.

## **Options**

- Lockable spindle cap
- Maintenance Set

# **Approvals**

Company certified according to ISO 9001, ISO 22000 and PED 2014/68/EU Module H

CE-marked according to PED 2014/68/EU

ATEX 2014/34/EU with ignition hazard analysis according to EN 1127-1, DIN EN 13463-1 and ZH1/200

Analysed for Food Safety per HACCP-Analysis

Fulfils the requirements of EU Regulations (EC) 1935/2004, and (EC) 2023/2006

Fulfils the requirements of German Food and Feed (LFGB) Law, and is suitable for contact with food gases

Designed for Oxygen Service in accordance with EIGA 13/20 and CGA G-4.4: Oxygen Pipeline and Piping Systems

Cleaned for Oxygen Service in accordance with EIGA 33/18 and CGA G-4.1: Cleaning of Equipment for Oxygen Service

# Available upon request

Certificates and test reports

Other Dome types

Switchover systems / parallel supply systems

Customer-specific / customised versions

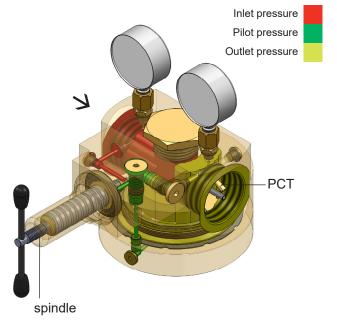
# DR2.8 - H01/4D subject to change

# **DOME PRESSURE REGULATOR SET 767 LE/S**



# Complete solution, own-medium controlled

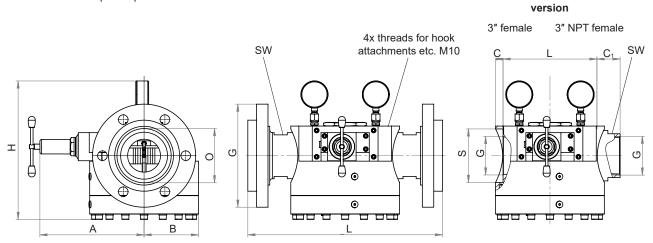
	Model							
	767LE/S							
Max. inlet pressure	CO <sub>2</sub> 25 bar 363 PSI	O <sub>2</sub> 30 bar 435 PSI	other gases 40 bar 580 PSI					
Outlet pressure	0.5 - 10 bar 7 - 145 PSI							
outlot prossure	0.5 - 16 bar 7 - 232 PSI	0.5 - 30 bar 7 - 435 PSI	0.5 - 30 bar 7 - 435 PSI					
Connections	Flange DN 100/PN40 or Flange DN 80/PN40 DIN EN 1092-1 G 3 female 3" NPT female							
Kv-Value		30						
Cv-Value		35.1						
Coefficient as per DIN EN ISO 7291	Coefficient of increase in pressure after closing R = 0.47 Coefficient of unevenness I = 0.01							
Temperature range		30 °C to +50 °C 22 °F to +122 °						
Housing		Brass						
Cartridge	Stair	less steel (1.4	305)					
Membrane		CR						
O-Ring		NBR						
Spring	Stainless steel (1.4310)							
Pressure gauge	Stainless steel housing DIN EN ISO 5171 for O <sub>2</sub> , DIN EN 837-1 glycerine-filled for other gases							
Weight approx.	65 kg / 143 lb							



other material (material combinations) upon request

	Connection	Dimensions in mm									
Model	G	Α	В	С	C <sub>1</sub>	н	L	<b>O</b> (O-ring)	s	sw	
	3" female	237.6	124	17	_	approx. 316	214	_	122	_	
767	3" NPT female	237.6	124	17	53	approx. 316	320 (L+2xC <sub>1</sub> )	_	122	100	
	DN 100/PN 40	237.6	124	17	_	approx. 316	444	126x4	122	95	
	DN 80/PN 40	237.6	124	17	_	approx. 316	424	115x3	122	95	

other connections upon request



For more pressure regulators visit www.domepressureregulators.com

# **DOME PRESSURE REGULATOR SET 767 LE/S SMART**



# Complete solution, own-medium controlled, including smart features

High performance dome-loaded pressure regulator set for inline installation, combined with high-tech sensor technology and electronic components. The dome pressure regulator 767LE/S Smart can signal, for example, pressures, temperatures and an indication of the flow rate. These signals can be used to optimize performance, safety and maintenance regimes.

WITT dome pressure regulator technology is unique in the world as it offers maximum pressure constancy even at high and fluctuating flow rates or with small differences between inlet and outlet pressure. Now the dome pressure regulator 767LE/S is also available with smart functions: Important operating parameters can be displayed via 4-20 mA signals, enabling the gas supply to be monitored and optimised. Continuous data logging enables quality control and is an important step towards networked production.



# Features of WITT dome pressure regulator technology

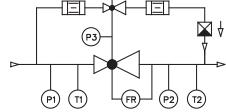
The extraordinary pressure constancy of WITT dome pressure regulators is the result of a complex technology consisting of perfectly matched components:

- · Pilot Control Tube (PCT) one of the features enabling highly accurate control of outlet pressure
- Balanced Seat Design (BSD) further enabling control precision, high reliability and low maintenance
- A complete solution, ready to use with integrated pilot pressure regulator, completely assembled and tested
- Own-medium controlled enabling autonomous operation (no separate gas supply required)
- Closed system self-relieving design, but no gas is released to atmosphere

### **Smart Features**

In the smart dome pressure regulator, temperature and pressure values are captured by high-tech sensors and transmitted via 4-20 mA signals. Depending on customer requirements, the following features are available individually or combined:

- Signaling and display of inlet pressure (P1) and outlet pressure (P2) in bar and temperature (T1 and T2) in °C
- Signaling and display of the pilot pressure (P3) in bar
- Indication of the instantaneous gas flow rate (FR) in Nm3/h



Model variations Smart	Features		
"Standard" Display, indication of inlet pressure and temperature as well as outlet pressure and temperature			
"Standard + P3"	"Standard" features, plus indication of pilot pressure		
"Standard + Flow"	"Standard" features, plus indication of flow rate		
"Standard + P3 + Flow"	"Standard" features, plus indication of pilot pressure and flow rate		

# **Approvals**

Company certified according to ISO 9001, ISO 22000 and PED 2014/68/EU Module H CE-marked according to PED 2014/68/EU

Designed for Oxygen Service in accordance with EIGA 13/20 and CGA G-4.4: Oxygen Pipeline and Piping Systems Cleaned for Oxygen Service in accordance with EIGA 33/18 and CGA G-4.1: Cleaning of Equipment for Oxygen Service

### Optiona

Analysed for Food Safety per HACCP-Analysis

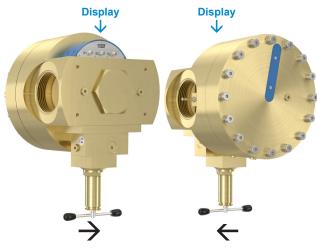
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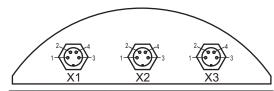
# DOME PRESSURE REGULATOR SET 767 LE/S SMART Technical data



	767LE/S Smart						
Max. inlet pressure	CO <sub>2</sub> 25 bar 363 PSI	O <sub>2</sub> 30 bar 435 PSI	other gases 40 bar 580 PSI				
Outlet pressure	0.5 - 10 bar 7 - 145 PSI 0.5 - 16 bar   0.5 - 30 bar   0.5 - 30 bar 7 - 232 PSI   7 - 435 PSI   7 - 435 PSI						
Connections	Flange DN 100/PN40 or Flange DN 80/PN40 DIN EN 1092-1 G 3 female 3" NPT female						
Kv-Value		30					
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Coefficient as per DIN EN ISO 7291	Coefficient of increase in pressure after closing R = 0.47 Coefficient of unevenness I = 0.01						
Temperature range		30 °C to +50 °C 22 °F to +122 °					
Housing		Brass					
Cartridge	Stair	nless steel (1.4	305)				
Membrane		CR					
O-Ring		NBR					
Spring	Stair	nless steel (1.4	310)				
Application	Non-flamn Flammabl	nable gases in e gases outsid	cluding O <sub>2</sub> e Ex Zone				
Power supply	24 V DC						
Protection class		IP 44					
Parameters / Accuracy	Temperature ± 2 °C Pressure approx. 1.5% current gas flow - upon request						
Interface	M12, 4-pin plug						
Signals	4	- 20 mA / RS48	35				
Weight	65 kg / 143 lb						



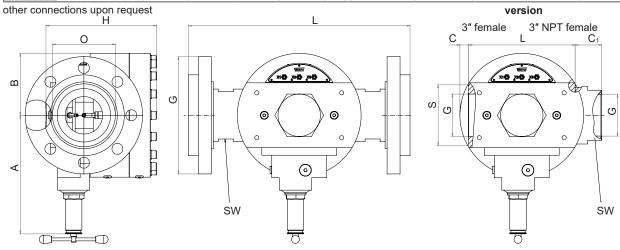
prescribed installation position at selection of model variation with "Flow"



Connections										
	1	P1	Inlet pressure							
X1	2	T1	Temperature inlet							
^1	3	GND	_							
	4	P3	Pilot pressure (option)							
	1	V+	+24 V DC							
X2	2	RS485 A	Transmission of results							
\ <b>^</b> 2	3	GND	_							
	4	RS485 B	Transmission of results							
	1	P2	Outlet pressure							
Х3	2	T2	Temperature outlet							
Λ3	3	GND	_							
	4	FR	Flow rate							

	other materials /				
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	Connection	Dimensions in mm								
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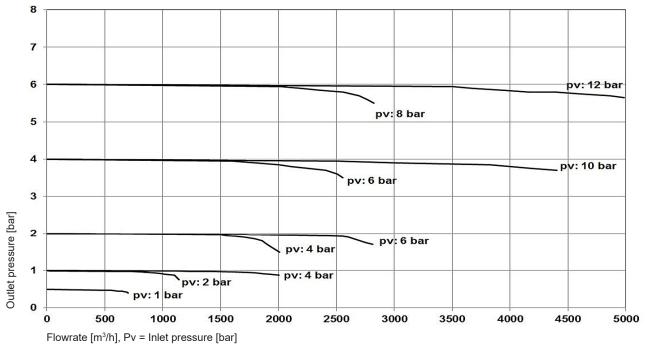
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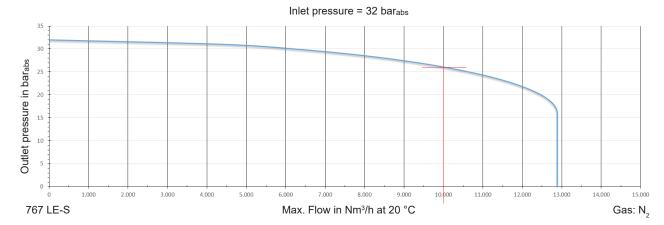


Pressure control performance examples (N<sub>2</sub>, 20 °C : apply conversion factor of x 0.8 for CO<sub>2</sub>)



1 m³/h = 35.3 scfh

# Flow capacity "envelope"



Example:

 $\begin{array}{lll} \mbox{Inlet pressure:} & 32 \mbox{ bar}_{\mbox{\scriptsize abs}} \\ \mbox{Outlet pressure:} & 26 \mbox{ bar}_{\mbox{\scriptsize abs}} \\ \mbox{Max. Flow:} & 10 \mbox{ 000 Nm}^{3}/\mbox{h} \\ \end{array}$ 

Gas: N<sub>2</sub>

individual graphs with your parameters upon request

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**Connection combinations** 

