

# SPGA Aluminium Cased Safety Pattern Pressure Gauge

- Available in 63mm, 100mm, 150mm, 200mm, 250mm and 300mm dial sizes
- Full safety pattern to EN837
- Class 1 Accuracy to EN837
- Available to Defence Standard 66/2 latest issue

Used predominantly in power generation, marine and defence applications, these solid front, safety pattern pressure gauge form the basis of the Rototherm range of gauges manufactured to Defence Standard 66-2.

SPGA gauges are also available as Class 0.25 accuracy test gauges with 150mm, 200 mm, 250mm and 300mm dial sizes.



## Specifications

### Case & Bezel

Aluminium with integral baffle between the dial and the bourdon tube. Brass bezel (Defence Standard only)  
Rear blow-out disc fitted in the gauge case back.  
Defence Standard gauges are supplied painted to Admiralty standards

### Mountings

Direct, surface or panel mounting

### Element

Non ferrous, 316 stainless steel or Monel 400

### Maximum Range

Vacuum through 1000 Bar - higher ranges available on request. Maximum pressure for 63 mm gauges is 400 Bar

## Standard Connections

Dial Size (mm)	Mounting		
	Direct & Surface		Panel (all ranges)
	Up to 60 bar	Above 60 bar	
63	1/4" BSP/NPT	1/4" BSP/NPT	1/4" BSP/NPT
100, 150 & 200	3/8" BSP	1/2" BSP/NPT	3/8" BSP
250 & 300	1/2" BSP/NPT	1/2" BSP/NPT	3/8" BSP

### Connections

See below for standard connection sizes

### Window

Safety glass (Perspex standard on Defence Standard)

### Dial

Aluminium - white with black scale markings

### Pointer

Aluminium, black finish

### Movement

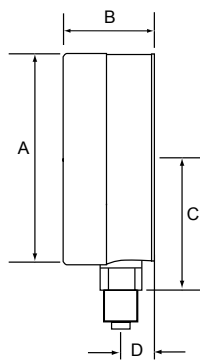
Stainless steel

### Accuracy

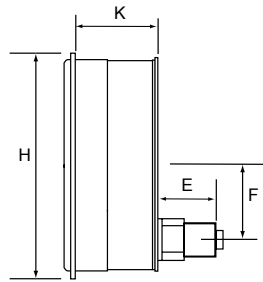
Class 1 to EN837

## Fixing Dimensions

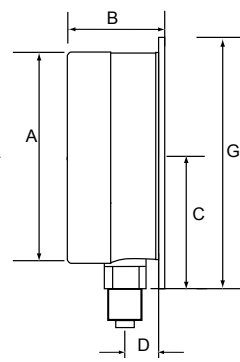
Dial Size	Hole	Surface Mounting		Panel Mounting	
		P.C.D.	Panel Cut out	Flange Dia. Max	P.C.D.
63	M4	76	70	90	78
100	M5	116	112	134	121
150	M5	168	165	188	175
200	M5	221	215	240	225
250	M6	273	270	305	285



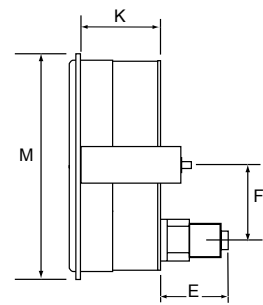
Configuration A  
Fig.501S  
Direct mounting, bottom  
entry



Configuration F  
Fig.508S  
Panel front flange  
mounting, back entry



Configuration B  
Fig.504  
Surface mounting,  
bottom entry

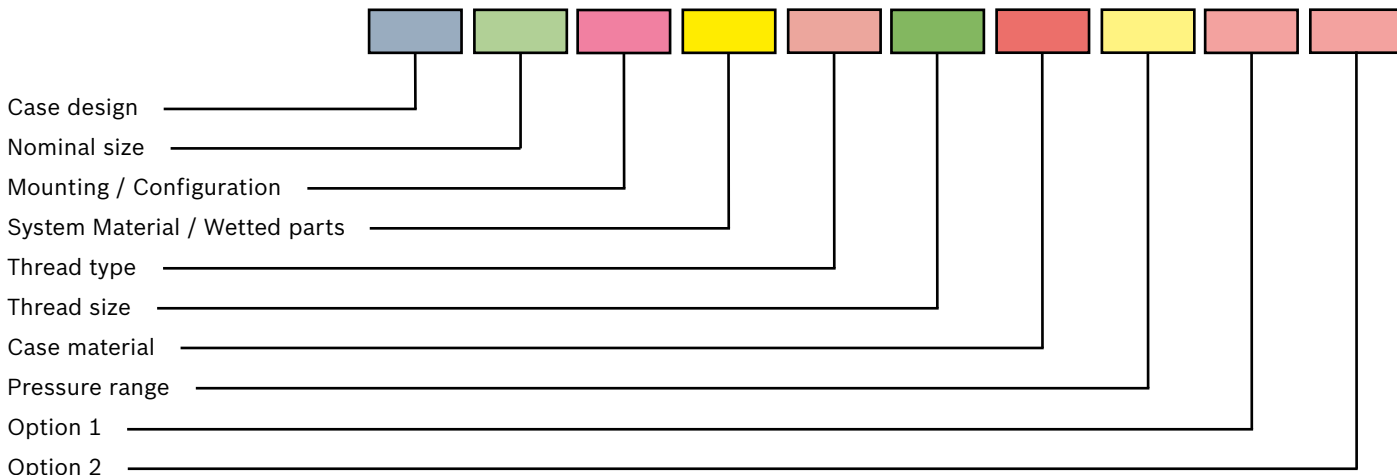


Configuration U/V  
Fig.508S/C  
Panel clamp mounting,  
back entry

All dimensions are in mm. Drawings are for illustration purposes only

Model / Nominal Size	A	B	C	D	E	F	G	H	K	M
SPGA63 (63mm)	68	42	46	17	29	22	89	89	38	89
SPGA100 (100mm)	102	49	65	20	30	35	127	133	41	133
SPGA150 (150mm)	159	56	102	19	38	54	181	187	57	187
SPGA200 (200mm)	205	53	124	22	38	54	235	232	52	238
SPGA250 (250mm)	256	60	152	24	38	54	292	305	52	305
SPGA300 (300mm)	307	60	178	24	38	54	343	368	52	368

# SPGA Pressure Gauge Ordering Information



## 1. Case type & nominal size

Case Code	Case & Bezel Material	Size Code	Nominal Size mm (inch)	Available Configuration
SPGA	Aluminium case, brass bezel	63	63 (2.5)	A B C D E F U
		100	100 (4)	
		150	150 (6)	
		250*	250 (10)	
		300	300 (12)	

## 2. Gauge configuration

<b>A</b>	bottom connection, direct mounting
<b>B</b>	bottom connection, back flange, surface mounting
<b>C</b>	bottom connection, front flange, panel mounting
<b>D</b>	back connection, direct mounting
<b>E</b>	back connection, back flange, surface mounting
<b>F</b>	back connection, wide front flange, (drilled) panel mounting
<b>U</b>	back connection, wide front flange, (un-drilled) panel mounting (yoke)

## 3a. Bourdon tube system material

System Code	Socket / Block Material	Bourdon Tube Material
BB	Brass	Bronze
BS	Brass	316 Stainless steel
MM	Monel 400*	Monel 400*
SS	316 Stainless steel	316 Stainless steel
NS	Ni Span C	316 Stainless steel

\* to NACE MR-01-75

## 3b. Capsule system material

System Code	Socket / Block Material	Capsule Material
BB	Brass	Beryllium copper
SS	316 Stainless steel	316 Stainless steel

Some materials may not be available for all gauge models. Please refer to individual gauge specifications, or alternatively contact Rototherm sales.

## 4. Thread type & size

Thread Type (first number)	Thread Size (second number)
0 = NPT	1 = 1/8"
1 = BSP	2 = 1/4"
2 = BSPT	3 = 3/8"
3 = API	4 = 1/2"

## 5. Case material

<b>Q</b>	Standard case (see case Type and Size)
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## Example order code

SPGA	150	A	SS	1	4	Q	0-10bar	N	N
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- Model SPGA safety pattern pressure gauge
- 150mm nominal dial size
- direct, bottom entry
- 316 stainless steel socket and bourdon tube
- 1/2" BSP male process connection
- standard case
- pressure range 0 to 10 bar
- no option

## 6. Standard pressure ranges

Below is a list of standard pressure ranges that are available. gauges may be ordered with dual scales. Other units and non-standard ranges are available on request.

Imperial	Metric
3 to 15 psi receiver	0.2 to 1 bar
0 to 10" Wg	0 to 25 mbar
0 to 16" Wg	0 to 40 mbar
0 to 24" Wg	0 to 60 mbar
0 to 30" Wg	0 to 75 mbar
0 to 40" Wg	0 to 100 mbar
0 to 60" Wg	0 to 150 mbar
0 to 100" Wg	0 to 250 mbar
0 to 160" Wg	0 to 400 mbar
0 to 200" Wg	0 to 500 mbar
0 to 300" Wg	0 to 700 mbar
0 to 400" Wg	0 to 1000 mbar
0 to 30" Hg vacuum	0 to -1 bar vacuum
30" Hg to 15 psi	-1 to +1.5 bar
30" Hg to 30 psi	-1 to +3 bar
30" Hg to 60 psi	-1 to +5 bar
30" Hg to 100 psi	-1 to +9 bar

Equivalent units available include:

"Wg, "Hg, cm Wg, cm Hg, kg/cm<sup>2</sup>, kPa and MPa.

Some ranges may not be available for all gauge models. Please refer to individual specification sheets or contact Rototherm sales.

Imperial	Metric
0 to 10 psi	0 to 600 mbar
0 to 15 psi	0 to 1 bar
0 to 25 psi	0 to 1.6 bar
0 to 30 psi	0 to 2.5 bar
0 to 60 psi	0 to 4 bar
0 to 100 psi	0 to 6 bar
	0 to 7 bar
0 to 120 psi	
0 to 160 psi	0 to 10 bar
0 to 200 psi	0 to 16 bar
0 to 300 psi	0 to 20 bar
0 to 400 psi	0 to 25 bar
0 to 600 psi	0 to 40 bar
0 to 800 psi	0 to 60 bar
0 to 1000 psi	0 to 70 bar
0 to 1600 psi	0 to 100 bar
0 to 2000 psi	0 to 160 bar
0 to 3000 psi	0 to 250 bar
0 to 4000 psi	
0 to 6000 psi	0 to 400 bar
0 to 10000 psi	0 to 600 bar
0 to 15000 psi	
0 to 16000 psi	0 to 1000 bar

## 7. Options

No option = NN, one option = selected letter then N, Two options = list from below alpha-numerically.

<b>N</b>	No option	<b>O</b>	Oxygen cleaned
<b>X</b>	Special instruction - please state	<b>P</b>	Perspex window
<b>C</b>	Customer drawing or specification	<b>R</b>	Internal Restrictor fitted
<b>D</b>	Defence Standard 66/2	<b>S</b>	Internal stops
<b>E</b>	Electrical Contact Head	<b>T</b>	Drag pointer
<b>G</b>	Glycerine filled	<b>V</b>	Low magnetic permeability
<b>H</b>	0.5% accuracy	<b>W</b>	Test gauge (0.25% accuracy)
<b>J</b>	Red setting pointer	<b>Y</b>	Damped Movement
<b>L</b>	No aluminium (for underground use)	<b>Z</b>	Wetted parts to NACE MR-01-75

Some options may not be available for all gauge models. Please refer to individual gauge specifications, or contact Rototherm sales.



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