

SPG “Elite” SafeGauge Safety Pattern Pressure Gauge

- Available in 100mm and 150mm dial sizes
- Full safety pattern to EN837
- Class 1 Accuracy to EN837
- Available with stainless steel and Monel wetted parts

The Rototherm “Elite” SafeGauge, safety pattern pressure gauge incorporates a series of unique features that have given rise to new standards of safety and sealing.

SafeGauges are available in either 100mm (4”) or 150mm (6”) nominal sizes. All SafeGauges with the exception of the back entry types can be glycerine filled without the need for any modification. A damped movement to reduce the effects of vibration is offered as an option.

The back plate features a specially designed membrane forming a perfect seal every time - compensating for any atmospheric changes that could effect the calibration of the gauge.

The SafeGauge has a truly integral baffle wall between the gauge internals and dial, there is no dependence on welding or other joining methods previously used in safety pattern gauge construction.

The “SafeCase” blow out back provides even greater operator protection, over and above the requirements of EN837. Being retained on the gauge by a centre screw, it prevents the risk of injury due to flying debris from the rear of the case in the unlikely event of tube failure.



Test Gauge Option

The 150mm “Elite” SafeGauge is available as a high accuracy test gauge, ±0.25% accuracy with a knife edged pointer and mirror scale. This gauge is supplied with a factory calibration certificate.

Specifications & Dimensions

Case & Bezel

304 stainless steel - 100mm and 150 mm nominal sizes.
316 stainless steel option available

Element

Bourdon tube in 316 stainless steel or Monel 400 to NACE spec MR-01-75

Pressure Ranges

30” Hg VAC to 10000 psi (-1 to 600 bar)
Please refer to standard pressure ranges.

Connections

1/4”, 3/8” or 1/2” (NPT - BSP) other connections available on request.

Mounting

Direct, panel or surface mounting

Window

Safety glass as standard, laminated safety glass or perspex (option)

Dial

Aluminium - white with black scale markings

Pointer

Aluminium, black finish (micrometer adjustable option)

Movement

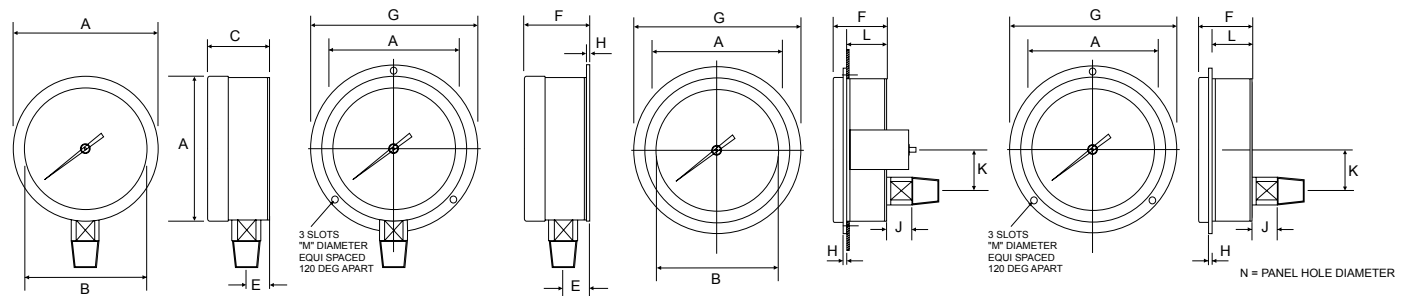
Stainless steel

Accuracy

Class 1 to EN837 (Class 0.5 option)

Weights (approx.)

100mm	Dry 600g	Filled 1.1 kg
150mm	Dry 1.1kg	N/A



Configuration A + D
Fig 331 Direct mounting,
bottom entry
Direct mounting, back entry

Configuration B
Fig 334 Surface mounting,
bottom entry

Configuration U
Fig 338C Panel mounting -
clamp fixing, back entry

Configuration F
Fig 338 Panel mounting - 3
hole fixing, back entry

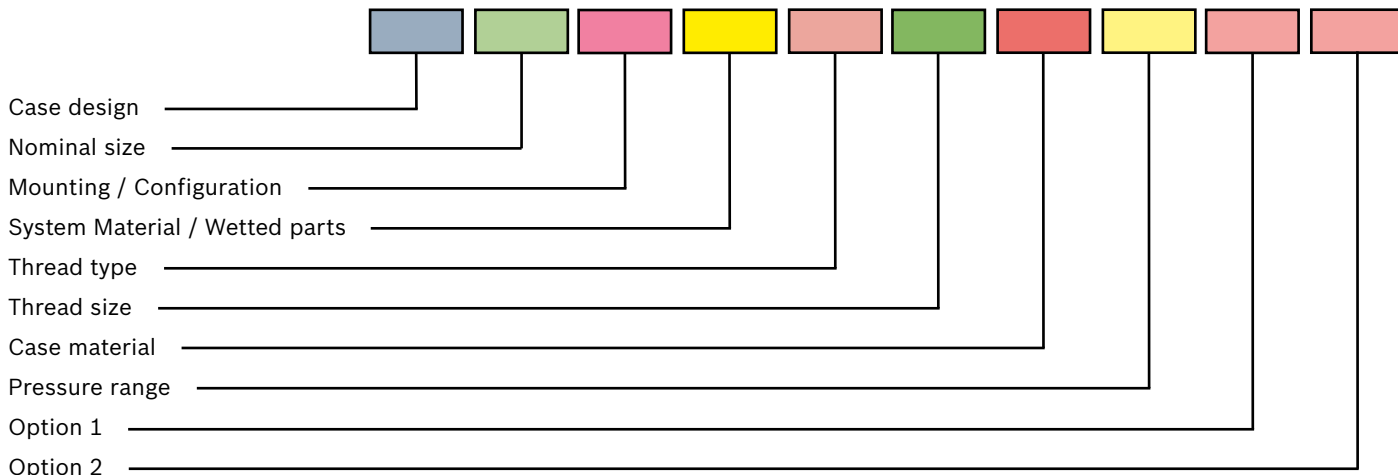
Model / Nominal Size	A	B	C	E	F	G	H	J	K	L	M	N
SPG100 (100mm)	108	90	62	28	68	135	6.2	17	33	54	6	110
SPG150 (150mm)	162	144	62	28	68	196	6.2	17	33	54	6	164

N = Panel hole diameter

PCD 100mm = 118 PCD 150mm = 178 PCD

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

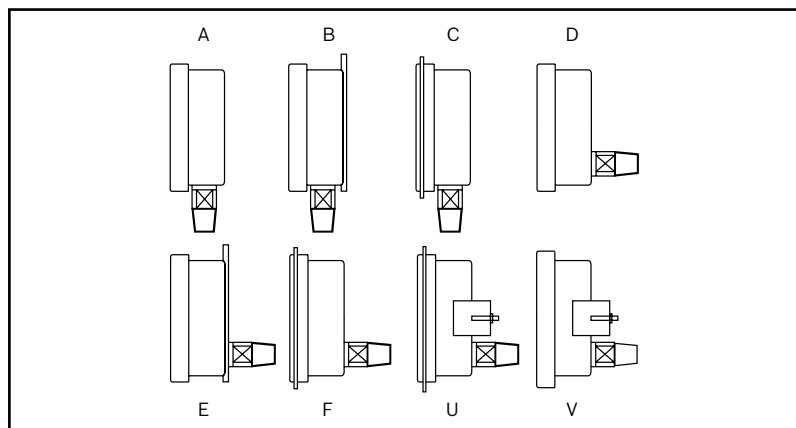
SPG “Elite” SafeGauge Ordering Information



1. Case type & nominal size

Case Code	Case & Bezel Material	Size Code	Nominal Size mm (inch)	Available Configuration
SPG	304 stainless steel	100	100 (4)	A B C D F U
	316 stainless steel option (S1)	150	150 (6)	

2. Gauge configuration



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

3a. Bourdon tube system material

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

* to NACE MR-01-75

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

S	Stainless steel case (standard)
S1	316 Stainless steel case - when available as an option

Example order code

SPG	100	A	SS	1	4	Q	0-10bar	G	N
-----	-----	---	----	---	---	---	---------	---	---

- Model SPG safety pattern pressure gauge
- 100mm nominal dial size
- direct, bottom entry
- 316 stainless steel socket and bourdon tube
- 1/2" BSP male process connection
- 304 stainless steel case
- pressure range 0 to 10 bar
- glycerine fill 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/cm², 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.

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



British Rototherm Company Limited

Kenfig Industrial Estate, Margam, Port Talbot SA13 2PW United Kingdom
 Telephone : +44 (0) 1656 740 551 Facsimile : +44 (0) 1656 745 915

E-mail : sales@rototherm.co.uk
 Web Site : www.rototherm.co.uk

sales@thermocouple.co.uk
 www.thermocouple.co.uk

