

Magwell Model M100 Series are designed to measure pressure from -1 to 1,600 bar. M100 Series uses specially designed Bourdon Tube, which makes it a better product for Accuracy, Repeatability, Reliability and Safety.

### Standard Features

- ◆ All Welded Design
- ◆ SS 316L Case and Bayonet Ring
- ◆ Micro-Zero Adjustable Pointer
- ◆ Shatter Proof Safety Glass
- ◆ Vibration Dampening Mechanism
- ◆ Design Standard EN 837-1 and ASME B40.100
- ◆ High Over Pressure for Safety
- ◆ Weather Protection IP 66 / IP67

### Applications

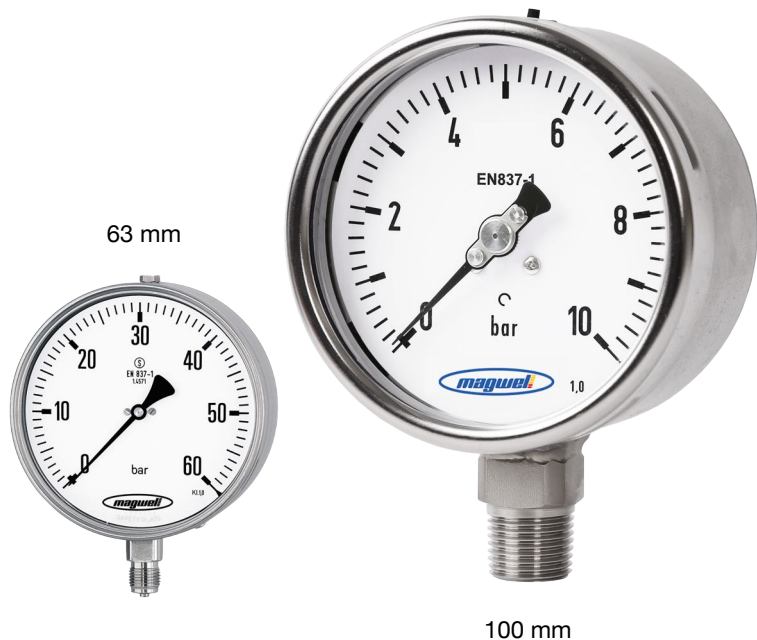
- ◆ Liquid & Gaseous Medium
- ◆ Corrosive Environments
- ◆ Offshore Oil Rigs & Platforms
- ◆ Chemical & Petrochemical Plants
- ◆ Power & Utility
- ◆ Water & Waste Water Treatment Facilities
- ◆ Other Critical Process Industries

### Specification

Design Standard :	EN 837-1, ASME B40.100
Case Style :	Open Front, with rear Blow Out Cap - M100 Solid Front, with Full Blow Out Disc - M101
Accuracy :	± 1.6% for 63 mm Gauges ± 1.0% for 100 mm & 160 mm Gauges ± 0.5% optional for 100 mm & 160 mm Gauges
Ambient Temperature :	-40 ~ +65° C
Process Temperature :	200°C Max
Sensing Elements :	Bourdon Tube (>100bar : C Type, <100 bar : Helical Type)
Case & Bayonet Material :	SS 316L
Movement :	AISI 304 SS, Optional SS 316L
Dial :	Aluminium, Black Graduation on White Background
Pointer :	Micro-Zero adjustable, Aluminum, Black Powder Coated
Gaskets, Blow out Disc & Filling Plug :	Neoprene / NBR
Window :	Shatterproof Safety Glass
Ingress Protection :	IP66 / IP67
Fill Fluid Options :	Glycerin, Silicon Oil
Range :	-1 to 1,600 bar
Over Pressure Limit :	130% of Full Scale, Optional 150%

### Component Materials

Bourdon Tube :	SS 316L, Monel 400
Bayonet Ring :	SS 316L
Blow Out Disc :	SS 316L
Shank :	SS 316L, Monel 400
Mounting Pattern :	Stem, Flush & Surface Mount
Movement :	Adjustable



**Model Selection Guide**

Description	Coding
<b>1 Dial</b>	
2.5" / 63 mm	63
4" / 100 mm	100
4 1/2" / 115 mm	115
6" / 160 mm	160
<b>2 Model</b>	
M100 - Open Front with Rear Blow Out Back	M100
M101 - Solid Front with Full Blow Out Back	M101
<b>3 Mounting / Connection Orientation</b>	
Bottom Connection	BT
Center Back (Only for 63 mm)	CB
Lower Back (Only for 63 mm & 100 mm)	LB
<b>4 Process Connection</b>	
1/4" NPT (M)	2MN
1/4" BSP (M)	2MB
1/2" NPT (M)	4MN
1/2" BSP (M)	4MB
3/8" NPT (M)	3MN
3/8" BSP (M)	3MB
9/16-18 UNF-2B Aminco (High Pressure)	9HP
<b>5 Case Filling</b>	
Dry Case	D
Dry Case but Field Fillable	X
Glycerin Filled	G
Silicone	S
Halocarbon	H

Description	Coding
<b>6 Wetted Parts</b>	
Socket & Tube : SS 316 L	SL
Socket & Tube : Monel	MO
<b>7 Range</b>	
Refer to Page 3, Chart 1	
<b>8 Units</b>	
Refer to Page 3, Chart 1	
<b>9 Options</b>	
AISI 316 SS Movement	SM
Over Range Protection 1.5 FS	OP
5 Point Calibration Certificate	CC
316 L Tag Plate	TP
Internal Overload Stop	OS
Dampened Movement	DM
Epoxy Coating	EC
Material Test Certificate	MT
Optional Accuracy 0.5%	AC
Dual Scale Marking	DS
Nace Certification	NC
Front Flange for Panel Mounting	FF
Back Flange for Surface / Wall Mounting	BF
Panel Mounting Clamp	PM
Receiver Gauge	RC
2" Pipe Mounting	2P
External Zero Adjustment	EZ

**Sample Model Selection Code**

1	2	3	4	5	6	7	8	9				
100	M100	BT	4MN	G	SS	0/100	PSI	CC	TP	DM	AC	DS

# Pressure Gauge Model M100 / M101



Dial Size :	100 mm
Model :	M100 - Open Front, Blow Out Back
Mounting :	BT = Direct Bottom
Process Connection :	4MN = 1/2" NPT M
Case Filling :	G = Case Filling - Glycerin
Wetted Parts :	SS = 316 Stainless Steel
Range :	Range : 0 ~ 100
Units :	PSI
Optional Extras :	
CC	5 Point Calibration Certificate
TP	AISI 316L Tag Plate
DM	Dampened Movement
AC	Optional Accuracy 0.5%
DS	Dual Scale Marking

Pressure Gauge Ranges					Compound / Vacuum Gauge Ranges			
bar	kPa	psi	Kg/cm <sup>2</sup>	Mpa	bar	kPa	Mpa	psi
0 ~ 0.6	0 ~ 60	0 ~ 10	0 ~ 0.6	0 ~ 0.06	-0.6 ~ 0	-60 ~ 0	-0.06 ~ 0	-30 inHg ~ 0
0 ~ 1	0 ~ 100	0 ~ 15	0 ~ 1	0 ~ 0.1	-1 ~ 0	-100 ~ 0	-0.1 ~ 0	-30 inHg ~ +15
0 ~ 1.6	0 ~ 160	0 ~ 30	0 ~ 1.6	0 ~ 0.16	-1 ~ +0.6	-100 ~ +60	-0.1 ~ +0.06	-30 inHg ~ +30
0 ~ 2.5	0 ~ 250	0 ~ 60	0 ~ 2.5	0 ~ 0.25	-1 ~ +1.5	-100 ~ +150	-0.1 ~ +0.15	-30 inHg ~ +60
0 ~ 4	0 ~ 400	0 ~ 100	0 ~ 4	0 ~ 0.4	-1 ~ +3	-100 ~ +300	-0.1 ~ +0.3	-30 inHg ~ +100
0 ~ 6	0 ~ 600	0 ~ 160	0 ~ 6	0 ~ 0.6	-1 ~ +5	-100 ~ +500	-0.1 ~ +0.5	-30 inHg ~ +160
0 ~ 10	0 ~ 1,000	0 ~ 200	0 ~ 10	0 ~ 1.0	-1 ~ +9	-100 ~ +900	-0.1 ~ +0.9	-30 inHg ~ +200
0 ~ 25	0 ~ 2,500	0 ~ 300	0 ~ 25	0 ~ 2.5	-1 ~ +15	-100 ~ +1,500	-0.1 ~ +1.5	-30 inHg ~ +300
0 ~ 40	0 ~ 4,000	0 ~ 400	0 ~ 40	0 ~ 4	-1 ~ +24	-100 ~ +2,400	-0.1 ~ +2.4	
0 ~ 60	0 ~ 6,000	0 ~ 600	0 ~ 60	0 ~ 6				
0 ~ 100	0 ~ 10,000	0 ~ 800	0 ~ 100	0 ~ 10				
0 ~ 160	0 ~ 16,000	0 ~ 1,000	0 ~ 160	0 ~ 16				
0 ~ 250	0 ~ 25,000	0 ~ 1,500	0 ~ 250	0 ~ 25				
0 ~ 400	0 ~ 40,000	0 ~ 2,000	0 ~ 400	0 ~ 40				
0 ~ 600	0 ~ 60,000	0 ~ 3,000	0 ~ 600	0 ~ 60				
0 ~ 1,000	0 ~ 100,000	0 ~ 4,000	0 ~ 1,000	0 ~ 100				
0 ~ 1,600	0 ~ 160,000	0 ~ 5,000	0 ~ 1,600	0 ~ 160				
		0 ~ 6,000						
		0 ~ 7,500						
		0 ~ 10,000						
		0 ~ 15,000						
		0 ~ 20,000						




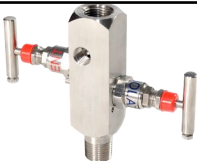



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The recommended maximum process temperatures for pressure gauges is 100°C for stainless steel wetted parts. For processes where the temperatures exceeds 100°C, several accessories are available to prevent damage to the instrument and maintain the instrument performance and accuracy.

Below are recommended gauge configurations for high process temperature.

- ◆ Up to 100°C – A gauge with stainless steel wetted parts must be used.
- ◆ Up to 150°C – A gauge fitted with diaphragm seal / Siphon must be used
- ◆ Up to 250°C – Diaphragm Seal and Cooling Tower. High temperature system fill fluid is required.
- ◆ Up to 400°C – Diaphragm Seal and Armoured Capillary
- ◆ For high temperatures, diaphragm seal with a minimum of 2 meters of armoured capillary is recommended, with a high temperature system fill fluid.

Below are the list of standard accessories available, which can be order to be mounted from the factory.

Accessories		
S.No	Item	Magwell Model
1	Snubber 	MS2-SS
2	Pressure Limited 	MGS2-SS
3	Swivel Adapter 	MSA
4	2 Valve Manifolds 	M2VM
5	Siphon 	MPTS
6	Diaphragm Seals 	MDS
7	Capillary Tubes 	MCT

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