

Magwell Model M131 Series are designed for Power Generation, Marine, Offshore and Defense Applications. These are Solid Front Safety Pattern Pressure Gauges. M131 Series uses specially designed Bourdon Tube, which makes it a better product for Accuracy, Repeatability, Reliability and Safety.

### Standard Features

- ◆ Aluminum with Integral Baffle Safety Pattern
- ◆ 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



100 mm

### Specification

|   |   |
|---|---|
| Design Standard :                       | EN 837-1, ASME B40.100  |
| Case Style :                            | Solid Front, with rear Blow Out Disc - M131                                     |
| Accuracy :                              | ± 1.0% for 100 mm & 160 mm Gauges<br>± 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 :               | Aluminum  |
| 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%   |
| Surface Coating :                       | Black Epoxy Coated, Other colors on Request                                     |

### Component Materials

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

**Model Selection Guide**

| Description                                | Coding |
|--|--------|
| <b>1 Dial</b>                              |        |
| 4" / 100 mm                                | 100    |
| 6" / 160 mm                                | 160    |
| 8" / 200 mm                                | 200    |
| <b>2 Model</b>                             |        |
| M131 - Solid Front with Rear Blow Out Back | M131   |
| <b>3 Mounting / Connection Orientation</b> |        |
| Bottom Connection                          | BT     |
| Center Back                                | CB     |
| Lower Back                                 | 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    |
| <b>5 Case Filling</b>                      |        |
| Dry Case                                   | D      |
| Dry Case but Field Fillable                | X      |
| Glycerin Filled                            | G      |
| Silicone                                   | S      |

| 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     |
| 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 | M131 | BT | 4MN | G | SS | 0/100 | PSI | CC | TP | DM | AC | DS |

# Pressure Gauge Model M131



|                      |                                   |
|----------------------|-----------------------------------|
| Dial Size :          | 100 mm                            |
| Model :              | M131 - Solid Front, Rear 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 |                    |          |                                |               |              |                 |

Rev-05.01

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