

# MB1051

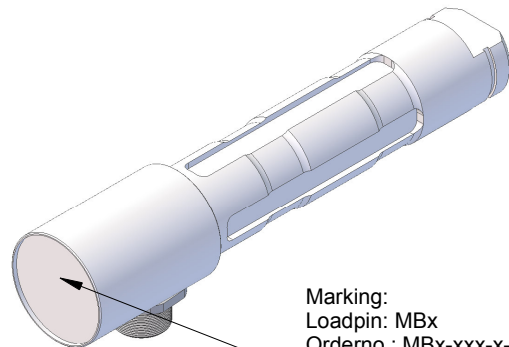
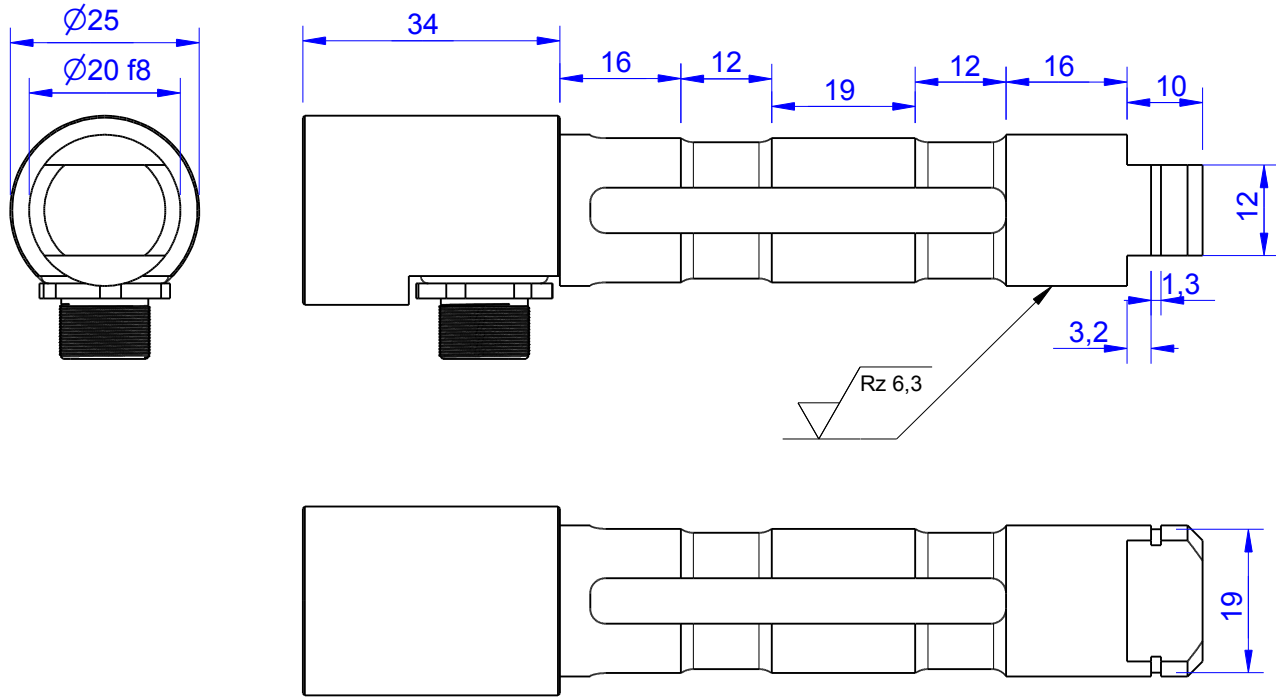
Load Pin

## Content of Loadpin Datasheet

Page 1 ... General

Page 2 ... Mounting Situation

Page 3 ... Output Signal & Wiring



Marking:  
Loadpin: MBx  
Orderno.: MBx-xxx-x-x  
Serialno.: xxxxxxxx  
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| Order-number   | Capacity (F.S.) | Uncertainty (k=2) | Review |
|----------------|-----------------|-------------------|--------|
| MB1051-2-x-A   | 2 kN            | ±0,010kN          | A      |
| MB1051-5-x-A   | 5 kN            | ±0,025 kN         | A      |
| MB1051-10-x-A* | 10 kN           | ±0,050 kN         | A      |
| MB1051-20-x-A  | 20 kN           | ±0,100 kN         | A      |
| MB1051-30-x-A  | 30 kN           | ±0,150 kN         | A      |

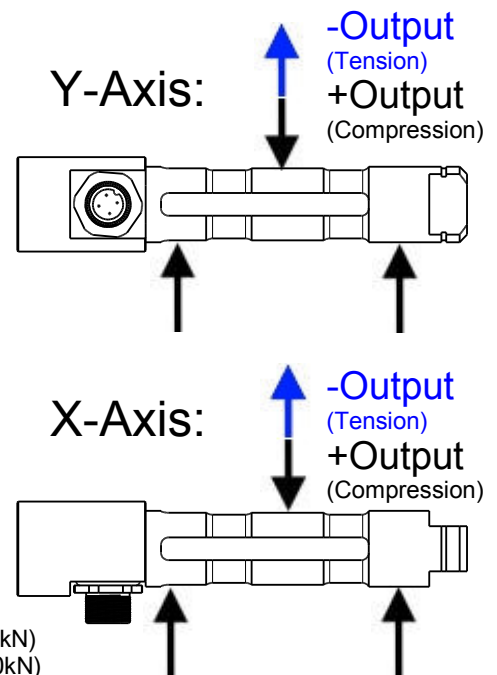
\* above showed version  
The fixed dimensions don't change at the other capacity.

## Specifications:

| Dimension / Material   |              | Stainless Steel |
|------------------------|--------------|-----------------|
| Material               |              | Stainless Steel |
| Protection class       |              | IP 66           |
| Hardness (load area)   | HRC          | 39..44          |
| <b>Mechanical Data</b> |              |                 |
| Safe Load Limit        | % of F.S.    | 150**           |
| Breaking Load          | % of F.S.    | 300***          |
| <b>Precision</b>       |              |                 |
| Nonlinearity           | % of F.S.    | ±0,5            |
| Nonrepeatability       | % of F.S.    | ±0,25           |
| Hysteresis             | % of F.S.    | ±0,2            |
| Temp. Shift Zero       | % of F.S./K. | ±0,05           |
| Temp. Shift Span       | % of F.S./K. | ±0,05           |
| <b>Temperature</b>     |              |                 |
| Compensated Temp.      | °C           | -10...+60       |
| Operating Temp.        | °C           | -20...+70       |

\*\* (110% for Version F.S. = 30kN)

\*\*\* (200% for Version F.S. = 30kN)



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# Mounting Situation

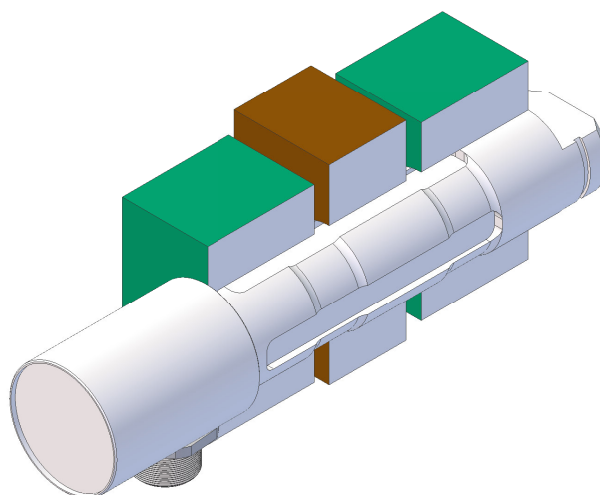
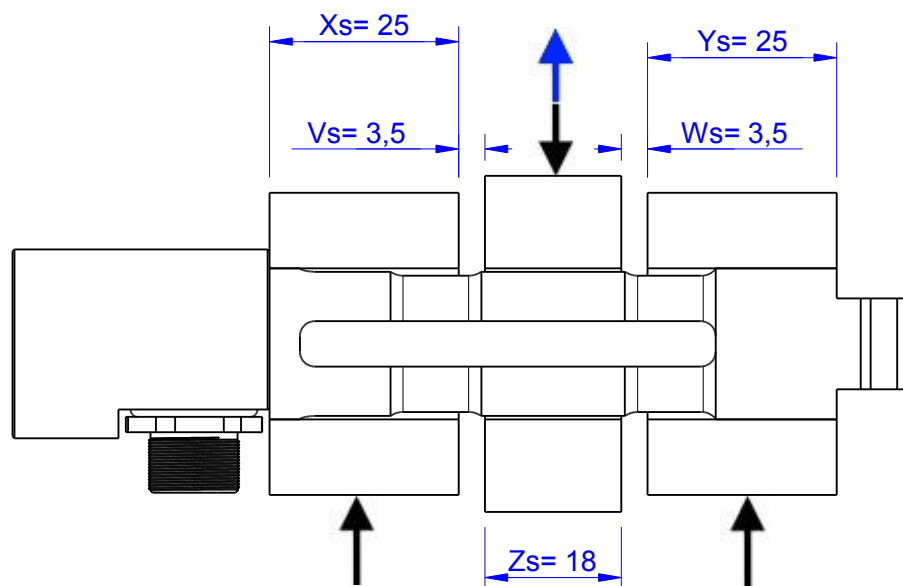
MB1051 Review: A

Bore fit of mounting situation: H7

## Configuration

possible mounting situation / customer mounting could vary

(Please describe mounting situation with Vs, Ws, Xs, Ys and Zs for best possible calibration)



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# Output Signal & Wiring

MB1051 Review: A

## Analog Output mV/V (S1)


| Electrical Data       |           |         |
|-----------------------|-----------|---------|
| Rated Output          | mV/V@F.S. | 1**     |
| Zero Balance          | mV/V      | ±0,05   |
| Excitation (Maximum)  | Volt      | 10      |
| Input Resistance      | Ohm       | 450±100 |
| Output Resistance     | Ohm       | 352±2   |
| Insulating Resistance | GOhm      | >5      |

| Wiringcode: WC58  |                         | Connectortype: M12 (male) |                     |                     |
|---|-------------------------|---------------------------|---------------------|---------------------|
|  | Excitation (+)<br>Pin 1 | Excitation (-)<br>Pin 2   | Bridge (+)<br>Pin 3 | Bridge (-)<br>Pin 4 |

Ordernumber Add-On:  
MBxxx-x-S1-x

## Analog Output 1V..10V (U1)\*


| Electrical Data U1  |     |            |
|---------------------|-----|------------|
| Output @ 0kN        | V   | 1±0,2      |
| Output @ F.S.       | V   | 10±0,2     |
| Supply Voltage      | V   | 24±2       |
| Current Consumption | mA  | 25 (@ 24V) |
| Bandwidth           | kHz | 2,2±0,2    |

| Wiringcode: WC36  |                     | Connectortype: M12 (male) |                 |
|---|---------------------|---------------------------|-----------------|
|  | Supply (+)<br>Pin 1 | GND<br>Pin 3              | Output<br>Pin 4 |

Ordernumber Add-On:  
MBxxx-x-U1-x

## Analog Output 4..20mA (I1)\*

| Electrical Data I1  |     |            |
|---------------------|-----|------------|
| Output @ 0kN        | mA  | 4±0,5      |
| Output @ F.S.       | mA  | 20±0,5     |
| Supply Voltage      | V   | 24±2       |
| Current Consumption | mA  | 45 (@ 24V) |
| Bandwidth           | kHz | 2,2±0,2    |


| Wiringcode: WC36  |                     | Connectortype: M12 (male) |                 |
|---|---------------------|---------------------------|-----------------|
|  | Supply (+)<br>Pin 1 | GND<br>Pin 3              | Output<br>Pin 4 |

Ordernumber Add-On:  
MBxxx-x-I1-x

## Analog & Switch Output 0V..10V (U20)\*

| Electrical Data U20    |    |                |
|------------------------|----|----------------|
| Output @ 0kN           | V  | 0              |
| Output @ F.S.          | V  | 10             |
| Supply Voltage         | V  | 11..30         |
| Current Consumption    | mA | 15 (@ 24V)     |
| Bandwidth              | Hz | 105            |
| Switching Output       |    | Open Collector |
| max. Switching current | mA | 100            |

| Wiringcode: WC39                               |       |               |       |
|--|-------|---------------|-------|
| Integrated Amplifier:GSV-15                    |       |               |       |
| Cabeling: M12 Male Socket / Flanschdose (male) |       |               |       |
| Supply(+)                                      | Pin 1 | Scale         | Pin 5 |
| Ground (-)                                     | Pin 3 | Threshold     | Pin 6 |
| Output   | Pin 4 | Output Ground | Pin 7 |
| Tare   | Pin 2 |               |       |




Ordernumber Add-On:  
MBxxx-x-U20-x

## Analog & Switch Output 4..20mA (I20)\*

| Electrical Data I20    |    |                |
|------------------------|----|----------------|
| Output @ 0kN           | mA | 4              |
| Output @ F.S.          | mA | 20             |
| Supply Voltage         | V  | 11..30         |
| Current Consumption    | mA | 15 (@ 24V)     |
| Bandwidth              | Hz | 105            |
| Switching Output       |    | Open Collector |
| max. Switching current | mA | 100            |

| Wiringcode: WC39                               |       |               |       |
|--|-------|---------------|-------|
| Integrated Amplifier:GSV-15                    |       |               |       |
| Cabeling: M12 Male Socket / Flanschdose (male) |       |               |       |
| Supply(+)                                      | Pin 1 | Scale         | Pin 5 |
| Ground (-)                                     | Pin 3 | Threshold     | Pin 6 |
| Output   | Pin 4 | Output Ground | Pin 7 |
| Tare   | Pin 2 |               |       |



Ordernumber Add-On:  
MBxxx-x-I20-x

Attention: Nipple orientation of connector is not fixed. In case of 90° connector - it is necessary to set by customer.

\*Attention: With this output configuration is no negative signal (Tension) possible. Please ask our engineering for 4..12..20mA; 1..5..9V or ±10V versions.

\*\*1,5 for Version F.S. = 30kN

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