

# MB685

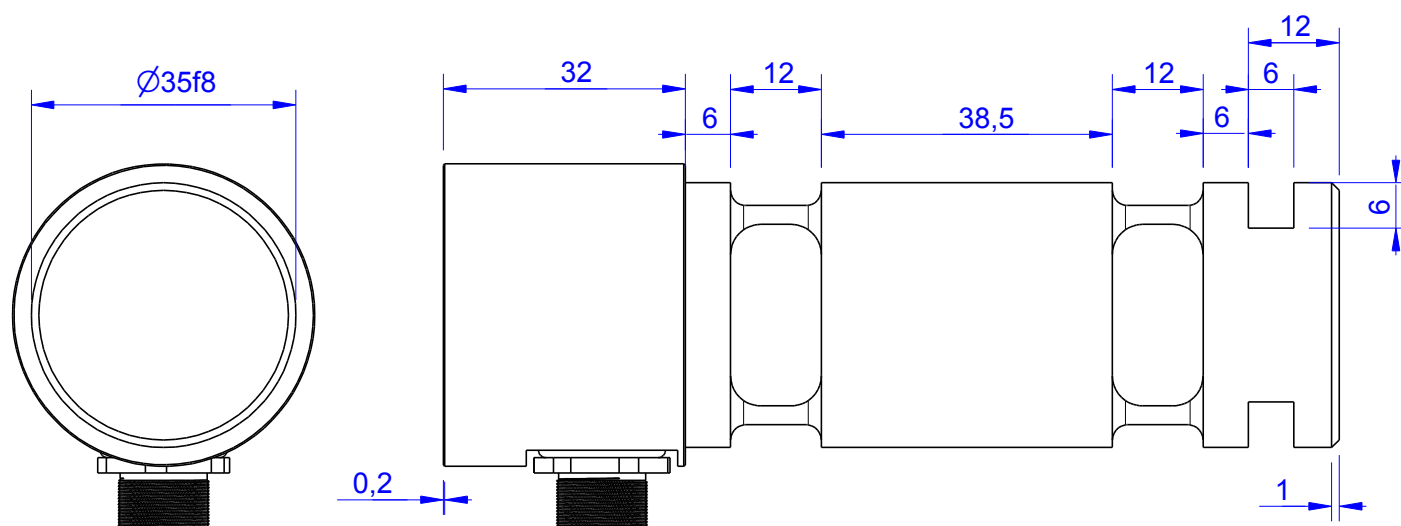
Load Pin

## Content of Loadpin Datasheet

Page 1 .... General

Page 2 .... Mounting Situation

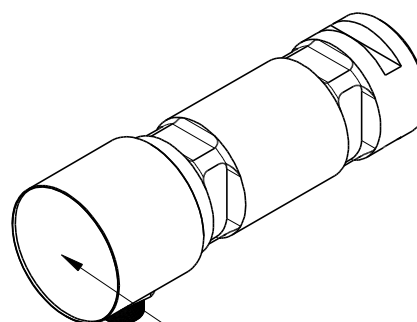
Page 3 .... Output Signal & Wiring



| Order-number  | Capacity (F.S.) | Uncertainty (k=2) | Review |
|---------------|-----------------|-------------------|--------|
| MB685-5-x-B   | 5 kN            | $\pm 0,025$ kN    | B      |
| MB685-10-x-B  | 10 kN           | $\pm 0,05$ kN     | B      |
| MB685-20-x-B  | 20 kN           | $\pm 0,10$ kN     | B      |
| MB685-39-x-B* | 39 kN           | $\pm 0,20$ kN     | B      |
| MB685-100-x-B | 100 kN          | $\pm 0,50$ kN     | B      |

\* above showed version

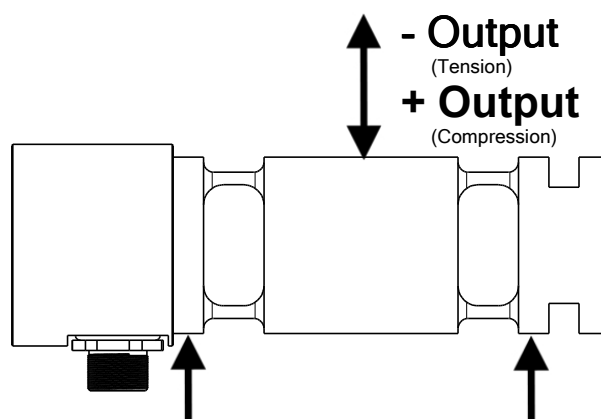
The fixed dimensions don't change at the other capacity.



Marking:  
Loadpin: MBx  
Orderno.: MBx-xxx-x-x  
Serialno.: xxxxxxxx  
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## Specifications: (Customizing on request)

|                             |              |                 |
|-----------------------------|--------------|-----------------|
| <b>Dimension / Material</b> |              |                 |
| Material                    |              | Stainless Steel |
| Protection class            |              | IP 66           |
| Hardness (load area)        | HRC          | 38              |
| <b>Mechanical Data</b>      |              |                 |
| Safe Load Limit             | % of F.S.    | 150             |
| Breaking Load               | % of F.S.    | 300             |
| <b>Precision</b>            |              |                 |
| Nonlinearity                | % of F.S.    | $\pm 0,5$       |
| Nonrepeatability            | % of F.S.    | $\pm 0,25$      |
| Hysteresis                  | % of F.S.    | $\pm 0,2$       |
| Temp. Shift Zero            | % of F.S./K. | $\pm 0,05$      |
| Temp. Shift Span            | % of F.S./K. | $\pm 0,05$      |
| <b>Temperature</b>          |              |                 |
| Compensated Temp.           | °C           | -10...+60       |
| Operating Temp.             | °C           | -20...+70       |



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# Mounting Situation

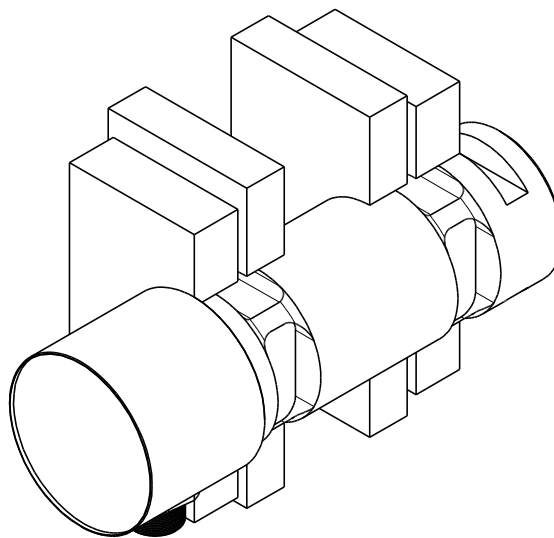
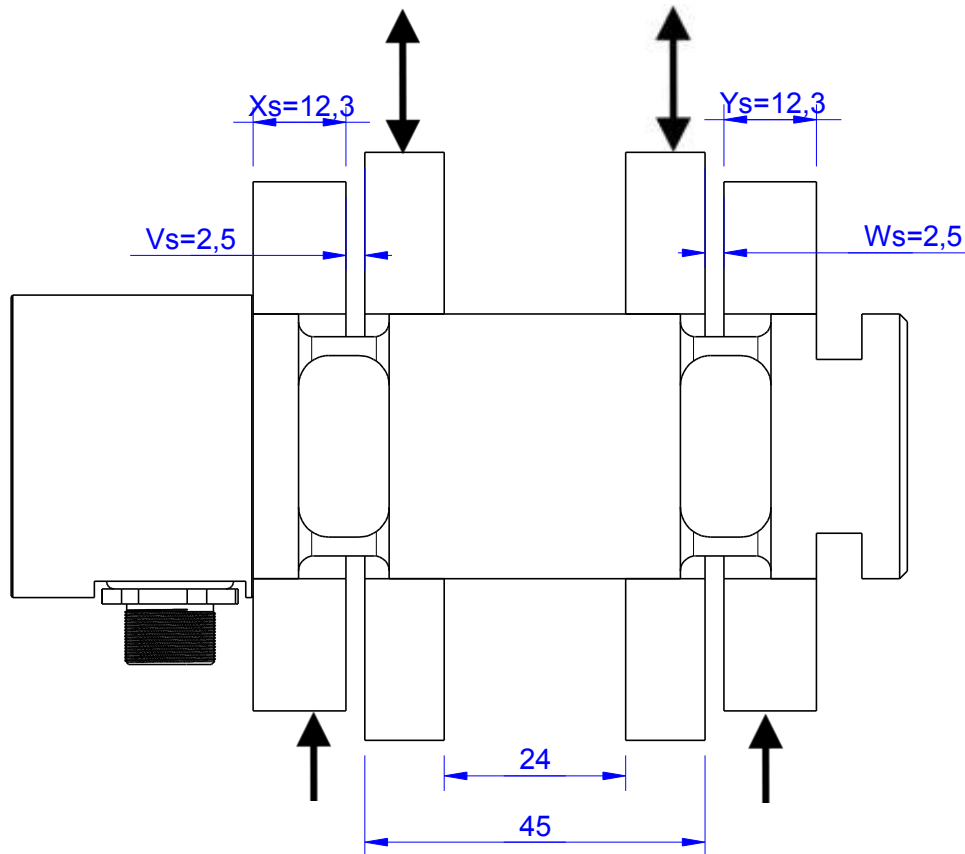
MB685 Review: B

Bore fit of mounting situation: H7

## Configuration 1 (Standard)

possible Mounting Situation / Customer Mounting could vary

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



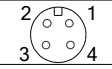
# Output Signal & Wiring

Loadpin: MB685

Review: B

## Analog Output mV/V (S1)

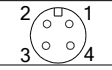
| Electrical Data       |           |               |
|-----------------------|-----------|---------------|
| Rated Output          | mV/V@F.S. | 1             |
| Zero Balance          | mV/V      | $\pm 0,05$    |
| Excitation (Maximum)  | Volt      | 10            |
| Input Resistance      | Ohm 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

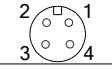
| Electrical Data U1  |     |               |
|---------------------|-----|---------------|
| Output @ 0kN        | V   | $1 \pm 0,2$   |
| Output @ F.S.       | V   | $10 \pm 0,2$  |
| Supply Voltage      | V   | $24 \pm 2$    |
| Current Consumption | mA  | 25 (@ 24V)    |
| Bandwidth           | kHz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

|                                                                                   |                     |                           |                 |
|-----------------------------------------------------------------------------------|---------------------|---------------------------|-----------------|
| 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  | $4 \pm 0,5$   |
| Output @ F.S.       | mA  | $20 \pm 0,5$  |
| Supply Voltage      | V   | $24 \pm 2$    |
| Current Consumption | mA  | 45 (@ 24V)    |
| Bandwidth           | kHz | $2,2 \pm 0,2$ |

|                                                                                     |                     |                           |                 |
|-------------------------------------------------------------------------------------|---------------------|---------------------------|-----------------|
| 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 & Digital Output 0..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 & Digital 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         |                                                                                       |
| Ground (-)                                     | Pin 3 | Threshold     | Pin 6                                                                                 |
| Output                                         | Pin 4 | Output Ground | Pin 7                                                                                 |
| Tare                                           | Pin 2 |               |                                                                                       |

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

\*Attention: With this output configuration is no negative signal (Tension) possible

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

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