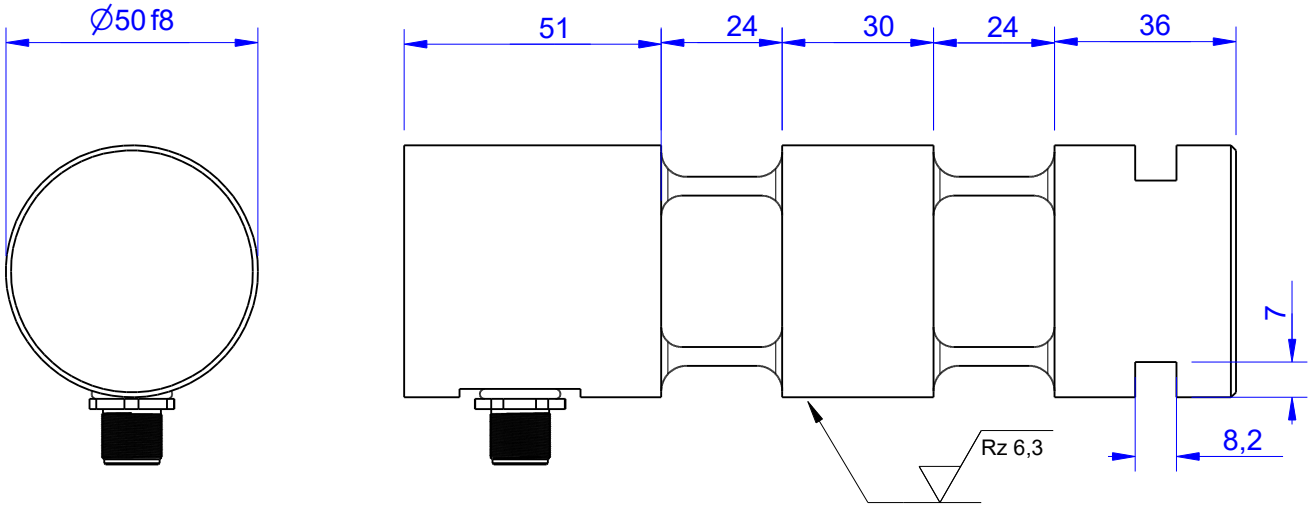
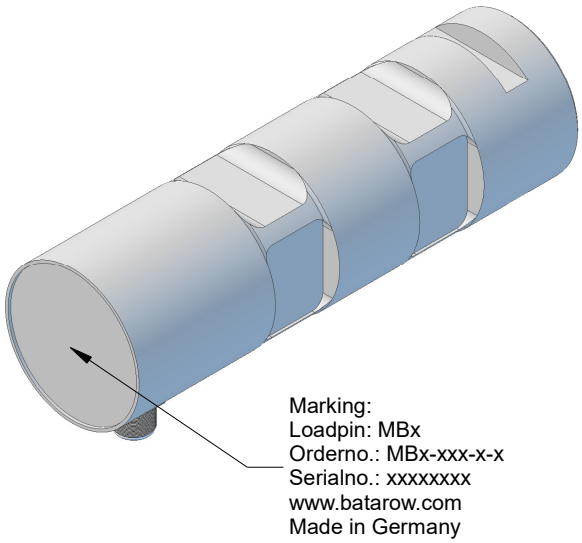
MB1400
Load Pin

Content of Loadpin Datasheet



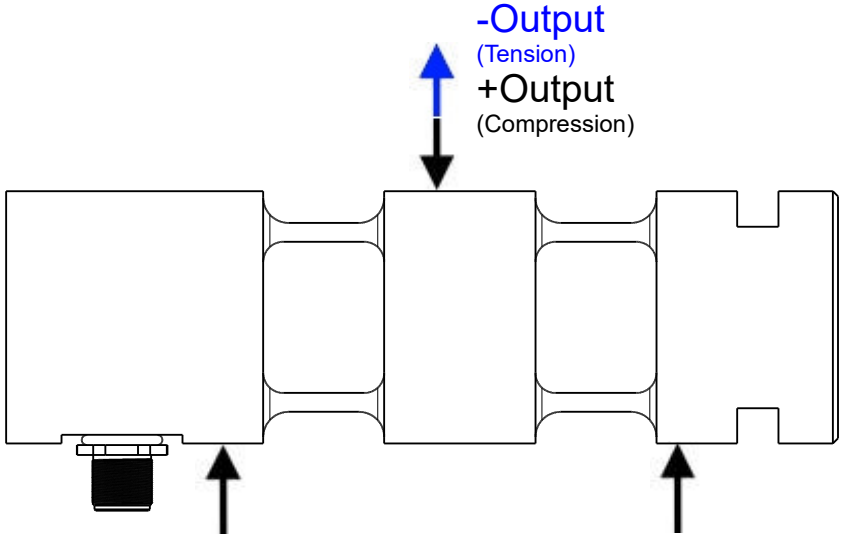


Order-number	Capacity (F.S.)	Uncertainty (k=2)	Review
MB1400-5-x-A	5 kN	±0,03kN	A
MB1400-10-x-A	10 kN	±0,05 kN	A
MB1400-20-x-A*	20 kN	±0,10 kN	A
MB1400-40-x-A	40 kN	±0,20 kN	A
MB1400-100-x-A	100 kN	±0,50 kN	A

* above showed version
The fixed dimensions don`t change at the other capacity.

Specifications:

Dimension / Material		
Material		Stainless Steel
Protection class		IP 66
Hardness (load area)	HRC	40..45
Mechanical Data		
Safe Load Limit	% of F.S.	150
Breaking Load	% of F.S.	300
Precision		
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
Temperature		
Compensated Temp.	°C	-10...+60
Operating Temp.	°C	-20...+70



Batarow
Made in Germany

Batarow Sensorik GmbH
Gewerbegebiet 4
18276 Lüssow OT Karow

Mail: info@batarow.com
Phone: +49 (0) 3843-855555
Fax : +49 (0) 3843-855556

Internet:
www.batarow.com

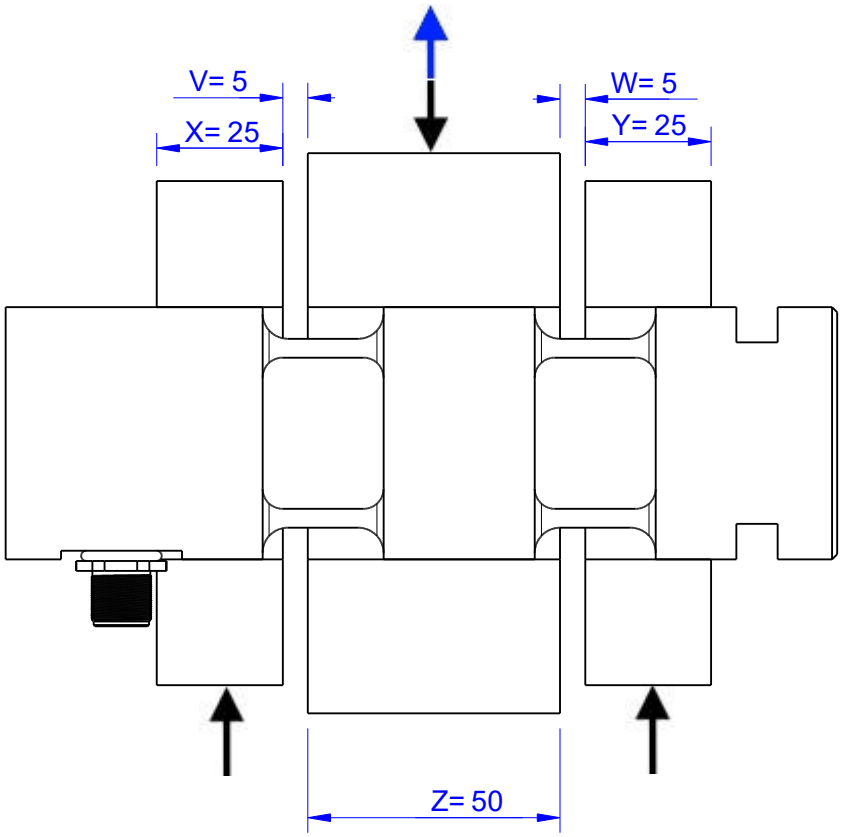
Mounting Situation

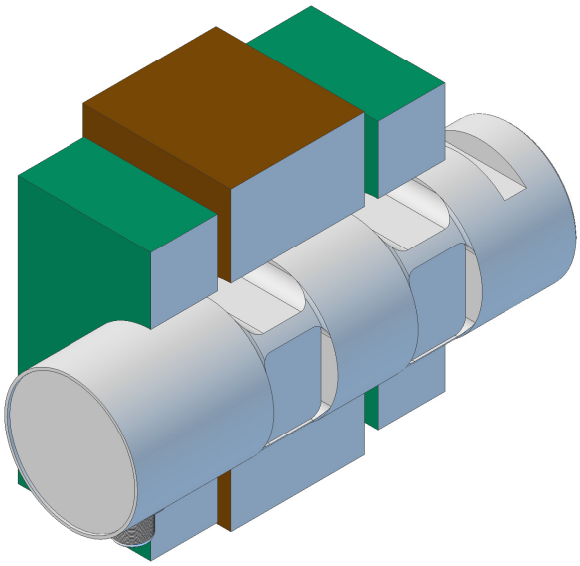
MB1400 Review: A

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

MB1400 Review: A

Analog Output mV/V (S1)

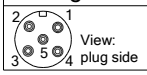
Electrical Data		
Rated Output	mV/V@F.S.	1
Zero Balance	mV/V	±0,05
Exitation (Maximum)	Volt	10
Input Resistance	Ohm	450±100
Output Resistance	Ohm	352±2
Insulating Resistance	GOhm	>5

Wiringcode: WC58		Connectortype: M12 (male)		
	Exitation (+)	Exitation (-)	Bridge (+)	Bridge (-)
	Pin 1	Pin 2	Pin 3	Pin 4

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

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

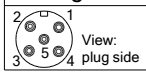
Electrical Data U1		
Output @ 0kN	V	1
Output @ F.S.	V	10
Supply Voltage	V	14..28
Current Consumtion	mA	25 (@ 24V)
Bandwidth	kHz	1

Wiringcode: WC46		Connectortype: M12 (male plug)			
	Supply (+)	Output	GND	Tara	Scale
	Pin 1	Pin 4	Pin 3	Pin 2	Pin 5

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

Analog Output 4..20mA (I1)*

Electrical Data I1		
Output @ 0kN	mA	4
Output @ F.S.	mA	20
Supply Voltage	V	14..28
Current Consumtion	mA	45 (@ 24V)
Bandwidth	kHz	1

Wiringcode: WC46		Connectortype: M12 (male plug)			
	Supply (+)	Output	GND	Tara	Scale
	Pin 1	Pin 4	Pin 3	Pin 2	Pin 5

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	9..28
Current Consumtion	mA	15 (@ 24V)
Bandwidth	Hz	2000
Switching Output		Open Collector
max. Switching current	mA	100

Wiringcode: WC39			
Integrated Amplifier: GSV-6			
Cabeling: M12 Male Socket / Flanschstecker (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	9..28
Current Consumtion	mA	35 (@ 24V)
Bandwidth	Hz	2000
Switching Output		Open Collector
max. Switching current	mA	100

Wiringcode: WC39			
Integrated Amplifier: GSV-6			
Cabeling: M12 Male Socket / Flanschstecker (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.

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Performence Level

MB1400 Review: A

1. Identification:
ISO 13849-1: 2008 Category 1 PL c

2. Classification:
Used standard: DIN EN ISO 13849-1: 2008
Performance Level: Plc
Category: 1
Diagnostic coverage: Low
MTTFd-value: 52.3 years

3. Limits for the operation:
All technical information from datasheed have to be considered.
Deviations lead to loss of safety functions: Attention
Only use the loadpin within the temperature limits of -20° C to +70 ° C
Use the right range of supply voltage
Protect the loadpin of mechanical overload

4. Lifetime
The calculations are based on a lifetime of 20 years in continuous operation with a maximum duty cycles of from 500,000 cycles per year.

5. Error display:
The error display is performed by the undershoot and overshoot of the signal.

Voltage output:
Error 1: the output voltage is less 0,5V
Error 2: the output voltage is greater 9.5V

Current output:
Error 1: the output current is less 3.5mA
Error 2: the output current is greater 20.5mA