

MB1453

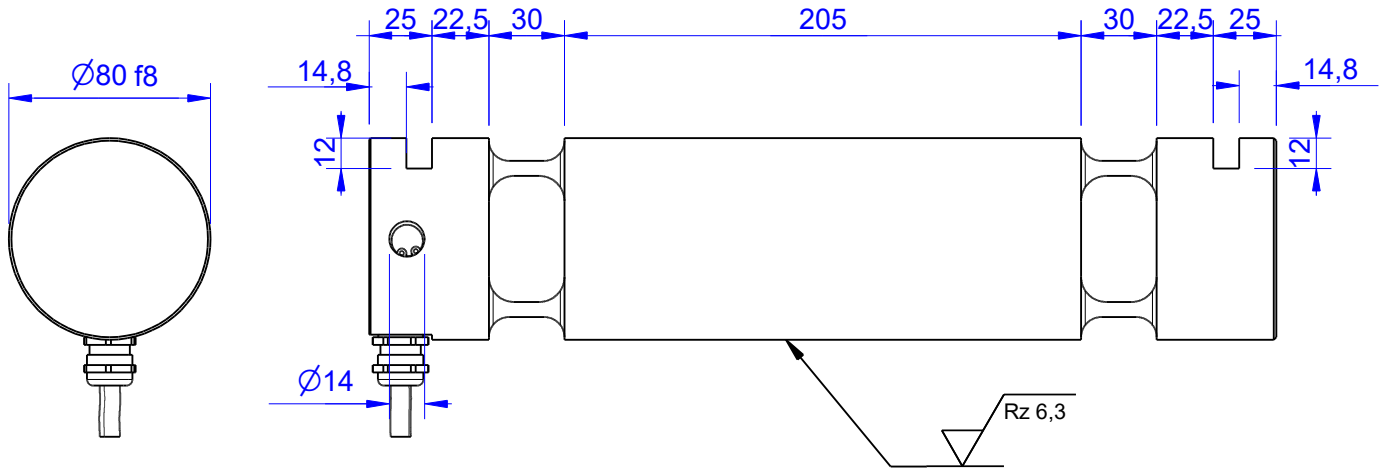
Redundant Load Pin

Content of Loadpin Datasheet

Page 1 ... General

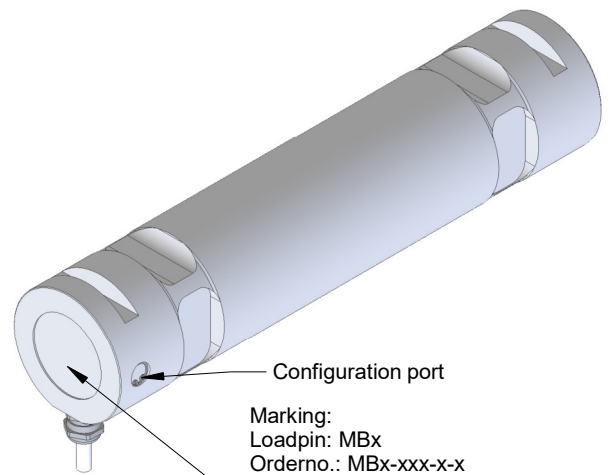
Page 2 ... Mounting Situation

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Ordernumber	Capacity [kN] (F.S.)	Uncertainty [kN] (k=2)	Review
MB1453-20-x-D	20	± 0,01	D
MB1453-50-x-D	50	± 0,25	D
MB1453-100-x-D	100	± 0,50	D
MB1453-140-x-D	140	± 0,70	D
MB1453-250-x-D*	250	± 1,25	D

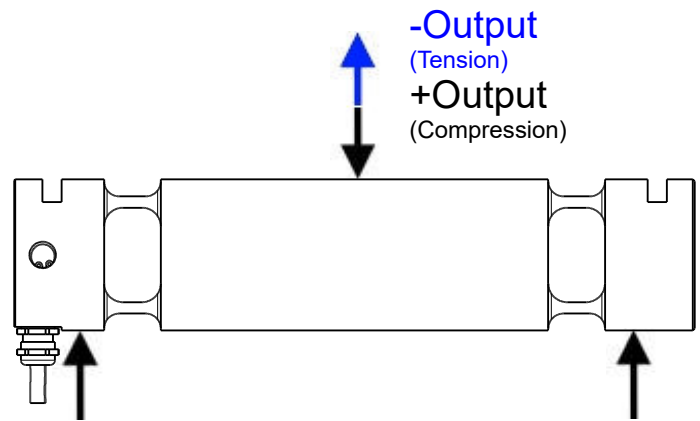
* above showed version
fixed dimensions don't change at other capacity



Marking:
Loadpin: MBx
Orderno.: MBx-xxx-x-x
Serialno.: xxxxxxxx
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Specifications:

Dimension / Material		
Material		42CrMo4+QT
Protection class		IP 66
Hardness (load area)	HRC	45..48
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



**** Attention the surface of the load pin can corrode!**

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

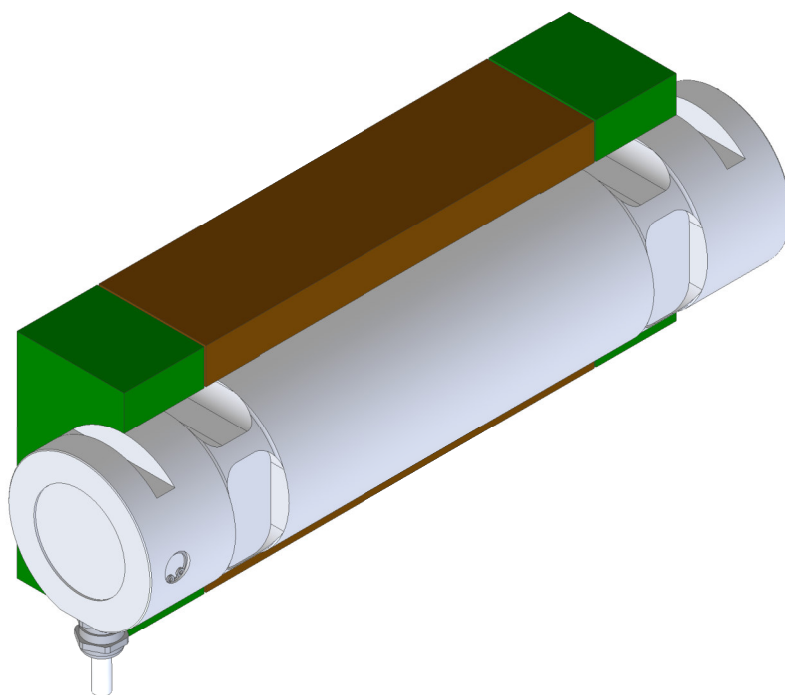
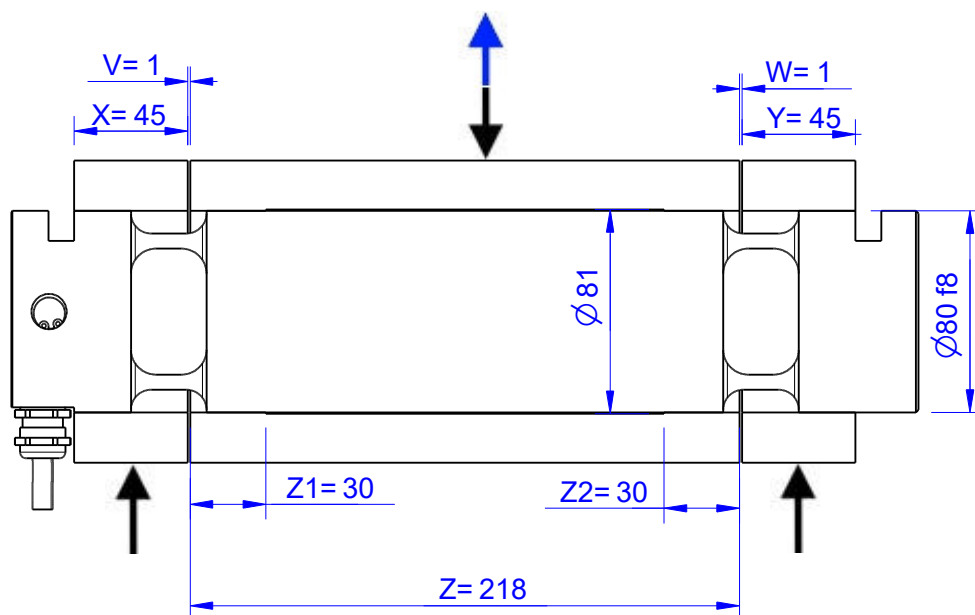
MB1453 Review: D

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

MB1453 Review: D

Analog Output Master 4..20mA (I1)*

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

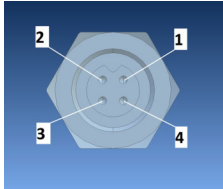
Analog Output Slave 4..20mA (I1)*

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

Wiringcode: WC515			
integrated Amplifier GSV			
Cabeling: 15m 3x2x0,25 PUR			
Master		Slave	
Supply (+)	brown	Supply (+)	yellow
Ground (-)	white	Ground (-)	grey
Output	green	Output	pink

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

Configuration port only for internal use

Wiringcode: WC527		
Integreted Amplifier: GSV-6		
Connector: M5 (male)		
	Singel/Master/X-Axis	None/Slave/Y-Axis
Tara	Pin 1 WH	Pin 3 BU
Scale	Pin 2 BN	Pin 4 BK

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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Performance Level

MB1453 Review: D

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: 70,5 years (for each channel of the redundant loadpin)

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 $+70^{\circ}\text{C}$

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 5,000 cycles per year.

5. Error display:

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

Current output:

Error 1: the output current is less 3.5mA

Error 2: the output current is greater 20.5mA