

# Manual test fixture MA 2113/D/H/S-10

Item 32500



GO TO PRODUCT

ingun®

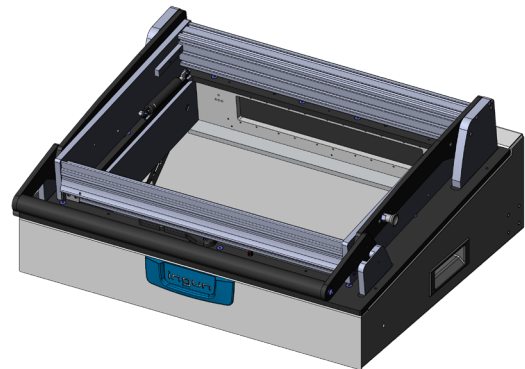
Partner for Future Technology

## INGUN SELECTION

- Manual test fixtures with parallel closing drive mechanism for testing medium PCB quantities with the highest quality and precision
- Interchangeable test fixtures with and without pre-configured test system interface
- Standard, ESD, and RF exchangeable kits that can be installed without tools and used without readjustment
- Modularly configurable signal transmission using interface blocks, which can be quickly detached
- Detailed accompanying documents (e.g., customising guidelines)
- Maximum opening angle may vary due to the length tolerance of +/- 2 mm of the gas spring

### Note:

By replacing the gas springs, an additional weight of 3 kg can be loaded onto the pressure frame for every 100 N increase.



### General data

Test system interface:	Not pre-wired
Product group:	Manual test fixtures (MA)
Main series:	MA xxxx
Subseries:	MA 21xx
Series:	MA 2113
Size:	xx13
Test fixture type:	Exchangeable test fixture
Contact stroke generation:	Manual
Housing type:	Desk housing
Max. interface signals:	1700
Interface blocks required:	Test system side
Max. internal interface blocks:	10
Contacting direction:	Single-sided (bottom)
Max. contact force:	2000 N [7,193 ozf]
Approx. parallel contact stroke:	15 mm [.59 in]
Weight:	15.4 kg [33.9 lbs]
Min. temperature:	10 °C [50 °F]
Max. temperature:	60 °C [140 °F]
Low voltage:	Yes, with suitable additional option
ESD-compliant:	Yes, with compatible exchangeable kit
RoHS-compliant:	Yes

### Technical data

Test probe installation height, top:	16 mm [.629 in]
Test probe installation height, bottom:	10.5 mm [.413 in]
Test probe installation height, dual-stage, bottom:	16 mm [.629 in]
Free space above PCB:	58 mm [2.28 in]
Force of gas pressure springs:	400 N (L: 200 N / R: 200 N)
Pressure frame opening angle:	69 °
Standard version:	Yes, with compatible exchangeable kit
Useable area, standard (WxD):	440 x 310 mm [17.3 x 12.2 in]
ESD version:	Yes, with compatible exchangeable kit
Useable area, ESD (WxD):	440 x 310 mm [17.3 x 12.2 in]
Radio frequency version:	Yes, with compatible exchangeable kit
Useable area, radio frequency (WxD):	375 x 240 mm [14.7 x 9.44 in]
Rigid pin version:	No
Dual-stage version:	Yes, with compatible additional option
Useable area, dual-stage (WxD):	440 x 310 mm [17.3 x 12.2 in]
Additional contacting unit (ZSK), top:	Yes, with suitable additional option
Outer dimensions, open (WxDxH):	648 x 533 x 657 mm [25.5 x 20.9 x 25.8 in]
Outer dimensions, closed (WxDxH):	648 x 584 x 270 mm [25.5 x 22.9 x 10.6 in]

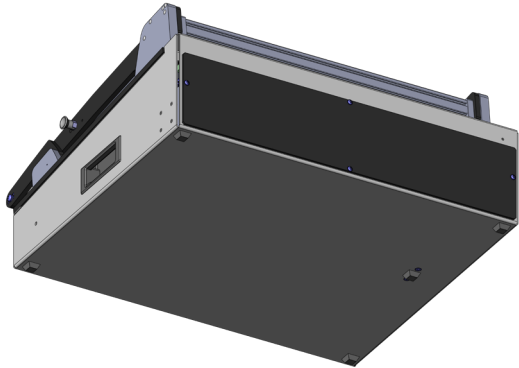
# Manual test fixture MA 2113/D/H/S-10

Item 32500



**ingun**<sup>®</sup>

Partner for Future Technology



## **INGUN** Prüfmittelbau GmbH

Max-Stromeyer-Straße 162  
78467, Constance, Germany  
Phone +49 7531 8105-0  
Customer hotline +49 7531 8105-888  
Fax +49 7531 8105-65  
info@ingun.com



Prices and delivery times on request.  
Technical changes reserved. 06/26\_GB

Learn more about  
Manual test fixtures (MA)



[ingun.com](https://www.ingun.com)