

Manual dual-stage Test Fixtures MA 21xx

1.) Dual-stage basic units MA 21xx-2el

Our product range of Manual Test Fixtures MA 21xx includes besides the standard classical single-stage Test Fixtures also standardized dual-stage solutions for combined In-Circuit (ICT) and Functional Test (FCT). The customer can choose between two different versions - the **Dual-stage basic units MA 21xx-2el** and the **Dual-stage retrofit kits for the standard basic units MA 21xx**.

1.) Dual-stage basic units MA 21xx-2el

The Manual Test Fixtures MA 2112-2el and MA 2113-2el are available as dual-stage basic units with electromagnetic stroke limit. The combined stroke is realized **manually**. The first contacting stage for ICT is reached as soon as the Pressure Frame Unit is completely closed. The second contacting stage for FCT, which lies above the first contacting stage, is reached by lifting up the handle. The limitation of both contacting stages is realized electromagnetically by means of two stroke magnets. A push-button switch must be activated to open the Pressure Frame Unit. The interchangeable kit which is required is the standard ATS 21xx.



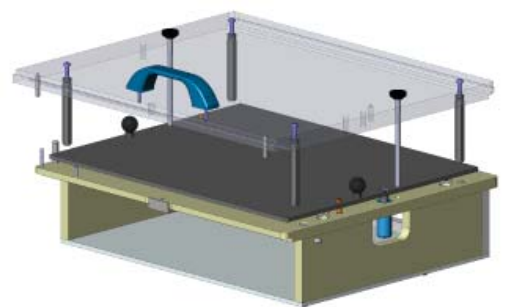
MA 2112-2el/D/H/S-7 (Part No. 33651)

Technical Data:

- Maximum Contacting Force: up to 2.000 N
- Guided parallel stroke: approx. 15 mm
- Max. Component height on PCB: approx. 60 mm
- Contact blocks:
 - up to 7 pcs. (MA 2112-2el)
 - up to 10 pcs. (MA 2113-2el)
- Available for all standard test systems

Recommended optional accessories:

- Test Probes ICT (Collar Height 10,5 mm): series GKS-100
- Test Probes FKT (Collar Height 15,8 mm): series GKS-135
- Receptacles: KS-100 47 05
- Pressure Frame Plate stiffener bar:
 - ATS 2112/S-7: 34934
 - ATS 2113/S-10: 34499
- Power Supply (24 V/DC - 2,7 A - 65 W): 35228



ATS 2112/S-7 (Part No. 32340)

Ordering information MA 21xx-2el	MA 2112-2el/D/H/S-7	MA 2113-2el/D/H/S-10
Outside dimensions (W x D x H [mm]):	460 x 515 x 270	620 x 585 x 270
Part Number:	33651	33652

Interchangeable Kits ATS 2112 or ATS 2113 can be found in our matrix MA 21xx / ATS 21xx.

Please contact us for further information.
 Price and delivery times on request.
 Technical changes possible without prior notification.

Further innovative products can be found on our Homepage and in our Catalog.
 Please note especially our Additional Components for the Test Fixtures MA 21xx.

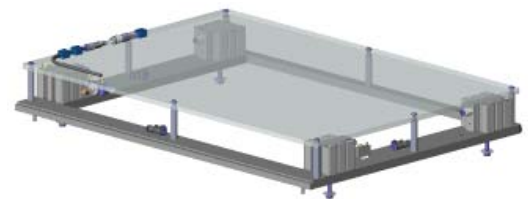


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2.) Dual-stage retrofit kits for the standard basic units MA 21xx

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With the Retrofit Kit the single-stage Standard Test Fixtures MA 2112 and MA 2113 can be easily and quickly upgraded to dual-stage Test Fixtures. To do this dual-stage Retrofit Kits and dual-stage Replacement Kits are available. The combined stroke is generated **pneumatically**. The first contacting stage for ICT is reached as soon as the Pressure Frame Unit is completely closed. The second contacting stage for FCT, which lies above the first contacting stage, is reached by automatic lifting up of the Pressure Frame Plate by means of four pneumatically operated lifting cylinders with return springs. The dual-stage Retrofit Kit is only required once. It is delivered without magnet valve.



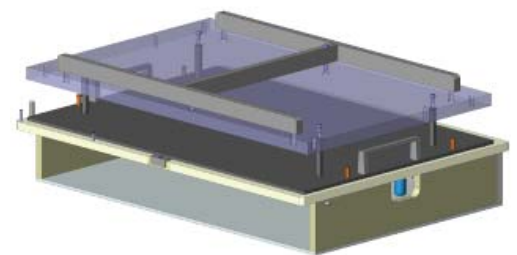
Dual-stage retrofit kit for ATS 2113-2/S-10
 (Part No. 38790)

Technical Data:

- Maximum Contacting Force: up to 1.200 N
- Guided parallel stroke: approx. 15 mm
- Max. Component height on PCB: approx. 41.5 mm
- Contact Blocks:
 - up to 7 pcs.. (ATS 2112-2)
 - up to 10 pcs. (ATS 2113-2)
- Contacting from top: up to max. 35 test points

Recommended optional accessories:

- Test Probes ICT (Collar Height 10.5 mm): series GKS-100
- Test Probes FKT (Collar Height 15.8 mm): series GKS-135
- Receptacles: KS-100 47 05
- Magnet valve (3/2 - 24 V): on request



ATS 2113-2/S-10 (Part No. 39055)

Ordering information Dual-stage retrofit kit (without magnet valve)	Dual-stage retrofit for ATS 2112-2/S-7	Dual-stage retrofit kit for ATS 2113-2/S-10
Part Number:	34660	38790

Ordering information ATS 21xx-2 (incl. stiffener bars)	ATS 2112-2/S-7	ATS 2113-2/S-10
Usable Area (W x D [mm]):	280 x 240	400 x 300
Part Number:	34820	39055

Manual Test Fixtures MA 2112 or MA 2113 can be found in our matrix MA 21xx / ATS 21xx.

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