



MMI-SERIES

MAN MACHINE INTERFACE
MECHANICAL, ERGONOMIC

CONTENTS

3	Specialist fixture solutions
3	Fixture assembly
4	Innovative level mechanism
4	Fixture configurator
5	Mechanical standalone fixture
7	Available housing types
8	Interface
9	Mechanical standalone fixture - isolated
10	Available housing types
11	Interface
12	Mechanical exchangeable cassette system
15	Available housing types
16	Interface
17	Spare parts for the MMI-Series

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SPECIALIST FIXTURE SOLUTIONS

ATX is Europe's market leader in the manufacture of test fixtures for electronic test procedures.

Why you too should choose an ATX fixture - it's simple:

TECHNICAL KNOW-HOW

Our sales team is technically well versed - our consultants are selected from the design team or other technical departments.

PROJECT KNOW-HOW

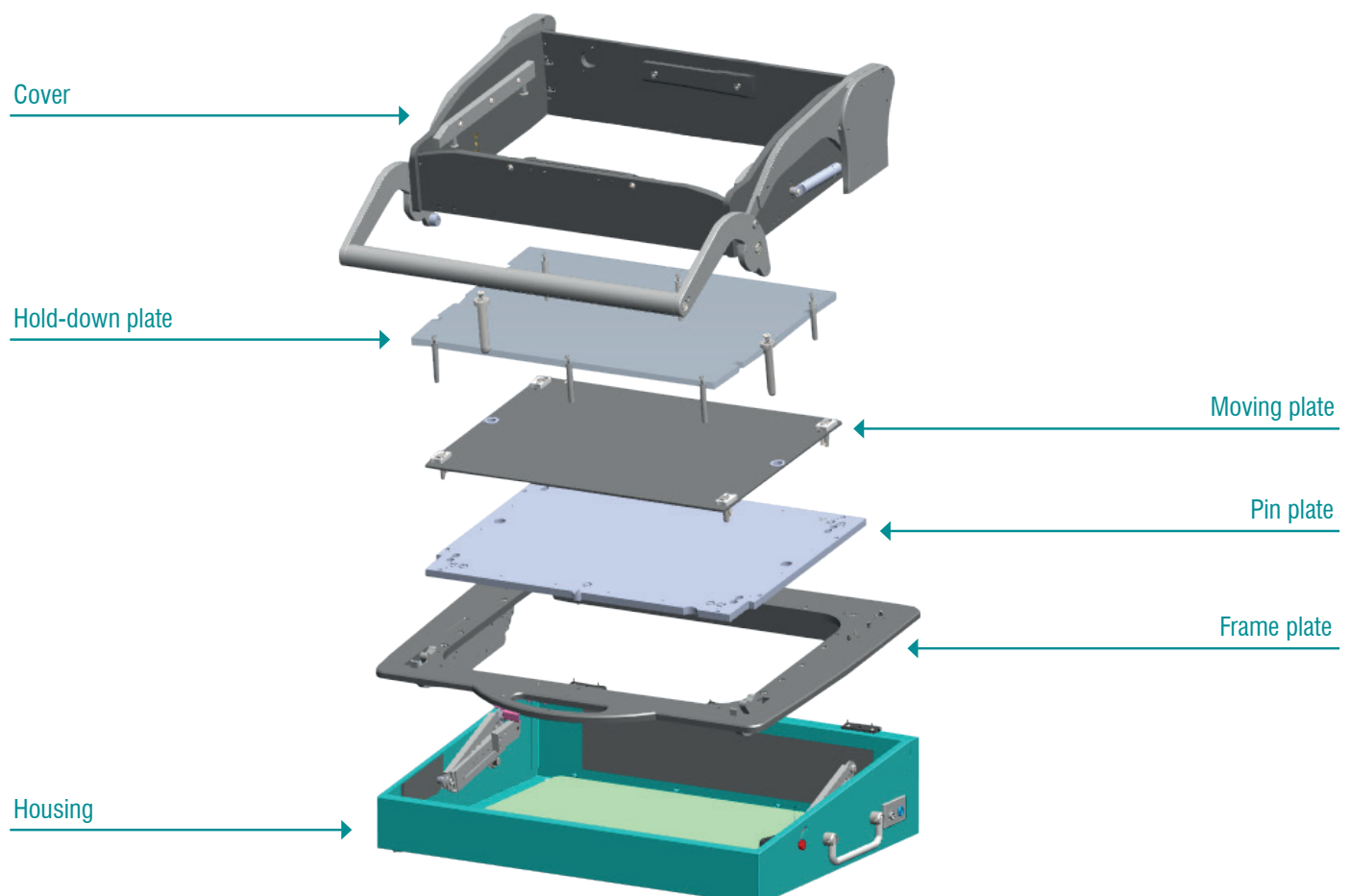
We work together with you towards a common goal: to find and implement the optimal solution for your individual testing requirements.

KNOWLEDGE BASE

Our employees bring well over 1,000 man-years of fixture building experience to the team.

SINCE 1997

FIXTURE ASSEMBLY



INNOVATIVE LEVER MECHANISM



HIGHLIGHTS

- Maximum ease of use
- Ergonomic
- Robust & durable

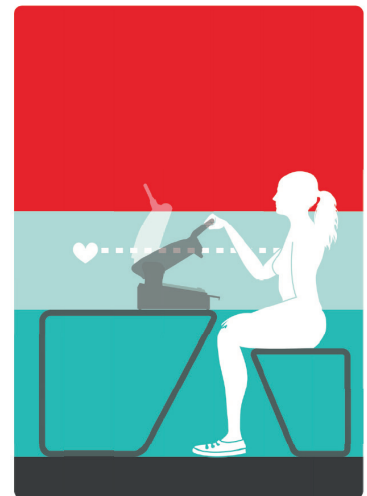
A NEW CONCEPT IN A NUTSHELL

The MMI is optimally adjusted to the operator

The MMI is the reliable ergonomic, mechanical fixture system developed by ATX. With our new design, we adapt perfectly to the interaction between man and machine. This property was also the inspiration for the name:

Man Machine Interface

Its new lever mechanism, which has been filed as a utility patent, is specially adapted to the movement of the human hand and enables lightweight, ergonomic work for the operator. The all-new lever drive brings the control lever into an easily accessible position as soon as the fixture is fully open. This ensures a natural position while working, both standing and sitting. A sophisticated guide mechanism ensures low operating forces even at high probe forces and allows fatigue-free operation, especially with high volumes of units.



FIXTURE CONFIGURATOR

CONFIGURE YOUR INDIVIDUAL TEST FIXTURE

MMI-Series

Our fixture configurator was developed especially for you. Together with our sales specialists and designers, it is constantly adapted and further developed. Configure your individual test fixture now, which is specially adapted to your needs, on our homepage and receive your exclusive offer.

» Go to the configurator (https://www.atx-hardware.de/en/product-category/mechanical_fixtures/mmi-mechanical-ergonomic/)

MECHANICAL STANDALONE FIXTURE



MMI - MAN MACHINE INTERFACE

Standalone Fixture

With the MMI from ATX, you have the ideal fixture solution for function test, final test and ICT applications for up to 1600 N (approximately 800 needles á 2 N). Our new system combines optimal ergonomics with high performance, durability and precision, ensuring your investment over the long term.

The new mechanism allows free access to the moving plate, because on the frame plate there is no front structure. We facilitate the operator in loading the test object. Through the precentered hold-down plate a more accurate hit pattern of the top-sided removal is generally conveyed. This allows more precise hold-downs in closely mounted assemblies. Another benefit of the MMI - it is prepared for a safety switch with guard locking, and an electrical interlock.

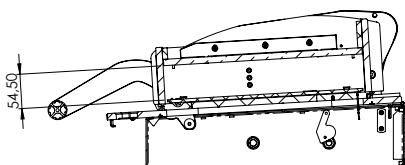
STARTER PACKS

Expansion I Needles

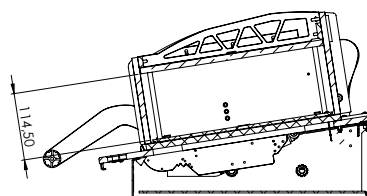
Take advantage of our exclusive starter packs now and get selected accessories for your new standalone fixture. Available is the **Starter Pack Expansion** (includes push fingers, PCB plates and pilot bolts) and the **Starter Pack Needles** (includes 100 probes, 100 daggers, 100 crowns and 100 sleeves).

STANDALONE FIXTURE LEGEND

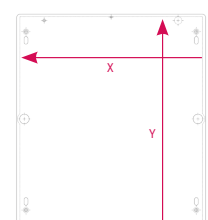
Mechanical standalone fixture



MMI-Standard height



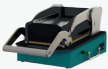
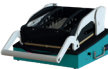

MMI-Special height



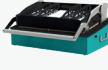



Moving plate dimension X x Y

MECHANICAL STANDALONE FIXTURE


STANDARD - 1200 N (MAX. 600 PROBES Á 2 N)

Designation	Fixture	Moving plate (X x Y)	Standard housing	Order number
MMI-A		185 x 310	E01-00145	100683
MMI-B*		275 x 310	E01-00115	100639
MMI-C*		445 x 310	E01-00117	100640

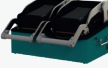
AMPLIFIED - 1600 N (MAX. 800 PROBES Á 2 N)

Designation	Fixture	Moving plate (X x Y)	Standard housing	Order number
MMI-DV*		530 x 330	E01-00125	100669
MMI-EV		890 x 330	E01-00032	100232
MMI-GV		545 x 400	E01-00132	100687
MMI-HV		800 x 600	E01-00217	100182

SPECIAL HEIGHT - 1200 N (MAX. 600 PROBES Á 2 N)

Designation	Fixture	Moving plate (X x Y)	Standard housing	Order number
MMI-CH*		445 x 310	E01-00117	100691
MMI-DVH*		530 x 330	E01-00125	100360

TANDEM FIXTURE WITH 2 MECHANISMS IN 1 HOUSING

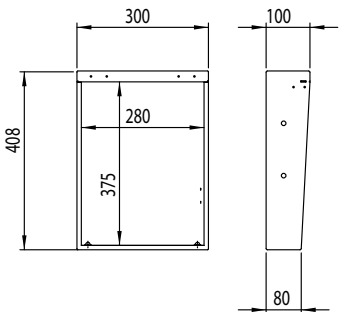
Designation	Fixture	Moving plate (X x Y)	Standard housing	Order number
MMI-A-DO*		2x 185 x 310	E01-00117	100659

All fixtures marked with * are also available with a high housing.

AVAILABLE HOUSING TYPES

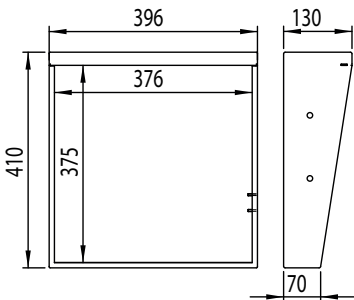
FOR MMI TO FIT FLEXIBLY INTO YOUR TEST ENVIRONMENT

Housing with back panel (connectors can be mounted as required)



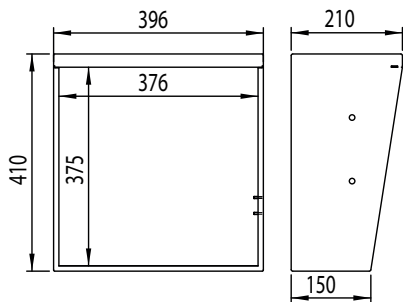
E01-00145

Standard housing for MMI-A



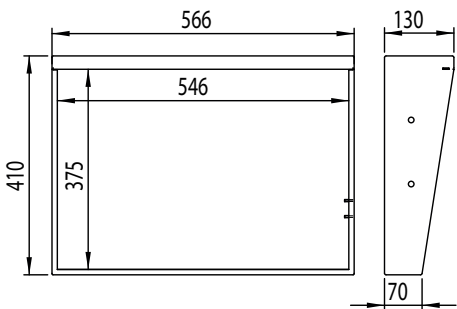
E01-00115

Standard housing for MMI-B



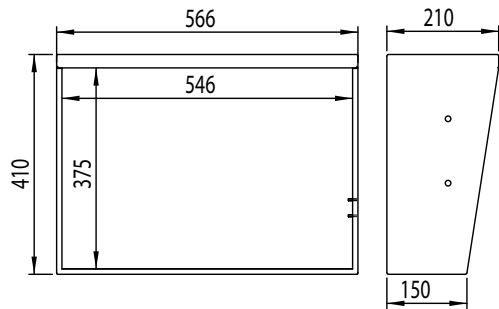
E01-00116

High housing for MMI-B



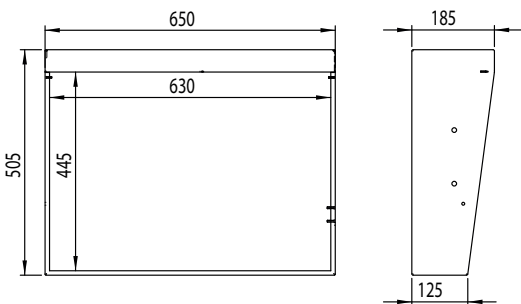
E01-00117

Standard housing for MMI-C, MMI-CH, MMI-A-DO



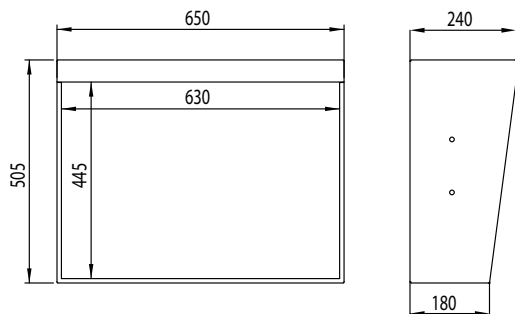
E01-00118

High housing for MMI-C, MMI-CH, MMI-A-DO



E01-00125

Standard housing for MMI-DV, MMI-DVH



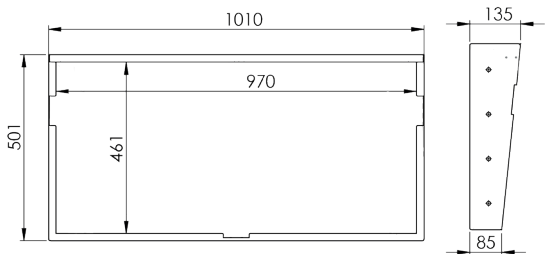
E01-00133

High housing for MMI-DV, MMI-DVH

AVAILABLE HOUSING TYPES

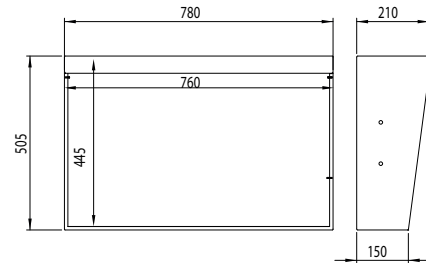
FOR MMI TO FIT FLEXIBLY INTO YOUR TEST ENVIRONMENT

Housing with back panel (connectors can be mounted as required)



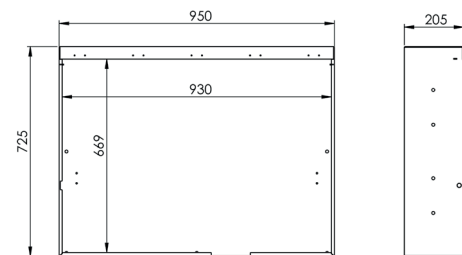
E01-00032

Standard housing for MMI-EV



E01-00132

Standard housing for MMI-GV



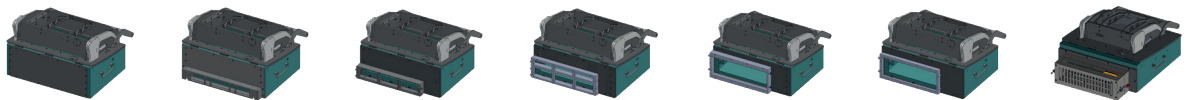
E01-00217

Standard housing for MMI-HV

INTERFACE

POSSIBILITY OF MOUNTING AN INTERFACE ON THE REAR WALL

The GFK-Aperture is installed in our test fixtures as standard. All other interface mounting options can be ordered with or without the respective interface.



Interface Housing	GFK-Aperture	Pylon	VPC G12	VPC G12X	VPC G20	VPC G25	Reinhardt
E01-00115	x						
E01-00116	x						
E01-00117	x	x	x				
E01-00118	x	x	x	x	x	x	
E01-00125	x	x	x			x	
E01-00132	x	x	x				
E01-00133	x	x	x			x	
E01-00145	x						
E01-00217	x						

The E01-00032 housing does not have a interface as standard, but customised versions can be produced on request.

The assignments shown above are standard designs. However, due to our high variety of housings, special designs can be made after consultation.

MECHANICAL STANDALONE FIXTURE - ISOLATED



ISOLATED MMI-SERIES

Standalone fixture

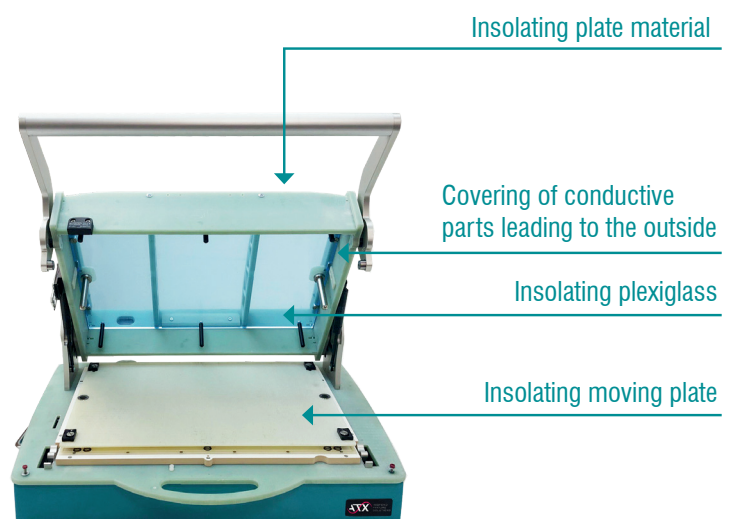
For fixtures with higher voltages, the isolated MMI-series is a good basis. The isolated MMI-series is made of NON-dissipative plate material and can therefore be used in the low-voltage range (up to 1000 V AC/1500 C DC).

The grounding package included is an important component. This is because the housing earthing, the earthing connection and the earthing test ensure that the safety standards are met. The safety locking and the safety switch, which are also included, ensure access protection. The optional safety box (safety switch relay) has the order number: **120516**

SIMPLY ISOLATED

Your advantages

- Ergonomic operation
- Adaption possible on both sides
- Incl. grounding package, safety locking and safety switch
- For max. 600 needles á 2 N (1200 N)
- Linear stroke 23 mm
- Moving plate
- Panel in the rear wall (made of aluminium) for plug mounting
- Plastic hold-down device
- 1x fixture down detection



MECHANICAL STANDALONE FIXTURE - ISOLATED

MECHANICAL STANDALONE FIXTURE - ISOLATED

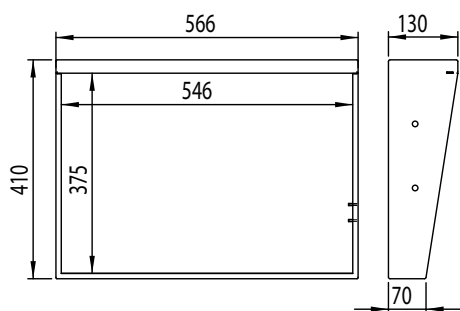
Designation	Fixture	Moving plate (X x Y)	Standard housing	Order number
MMI-CI I Isolated*		445 x 310	E01-00117	100694
MMI-DVI I Isolated*		530 x 330	E01-00125	100290
MMI-HV I Isolated		800 x 600	E01-00217	100183

All fixtures marked with * are also available with a high housing.

AVAILABLE HOUSING TYPES

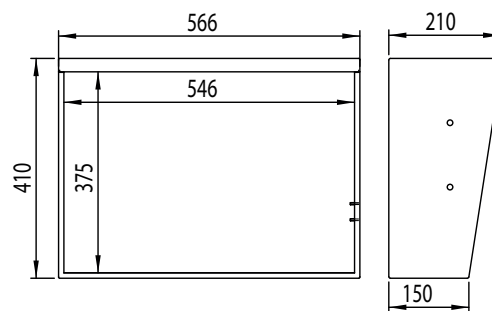
FOR THE ISOLATED MMI TO FIT FLEXIBLY INTO YOUR TEST ENVIRONMENT

Housing with back panel (connectors can be mounted as required)



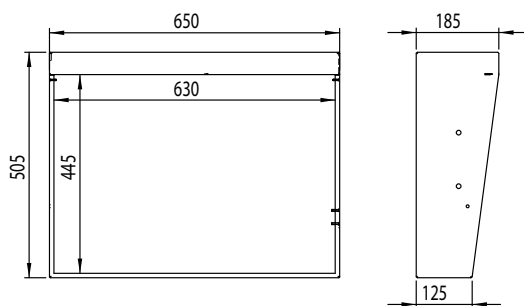
E01-00117

Standard housing for MMI-CI



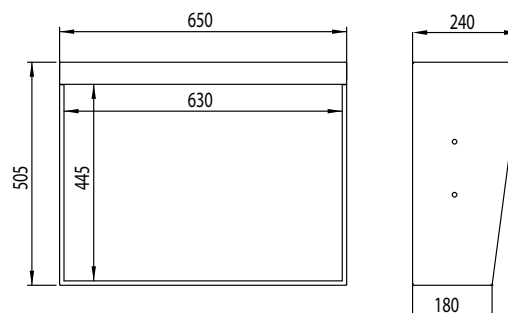
E01-00118

High housing for MMI-CI



E01-00125

Standard housing for MMI-DI



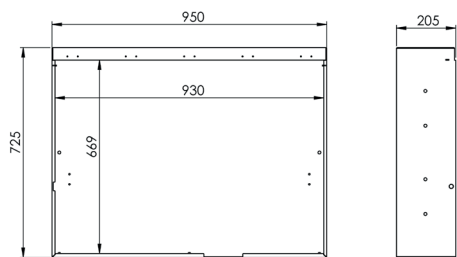
E01-00133

High housing for MMI-DI

AVAILABLE HOUSING TYPES

FOR THE ISOLATED MMI TO FIT FLEXIBLY INTO YOUR TEST ENVIRONMENT

Housing for back panel (connectors can be mounted as required)



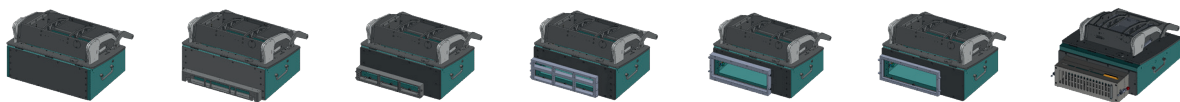
E01-00217

Standard housing for MMI-HVI

INTERFACE

POSSIBILITY OF MOUNTING AN INTERFACE ON THE REAR WALL

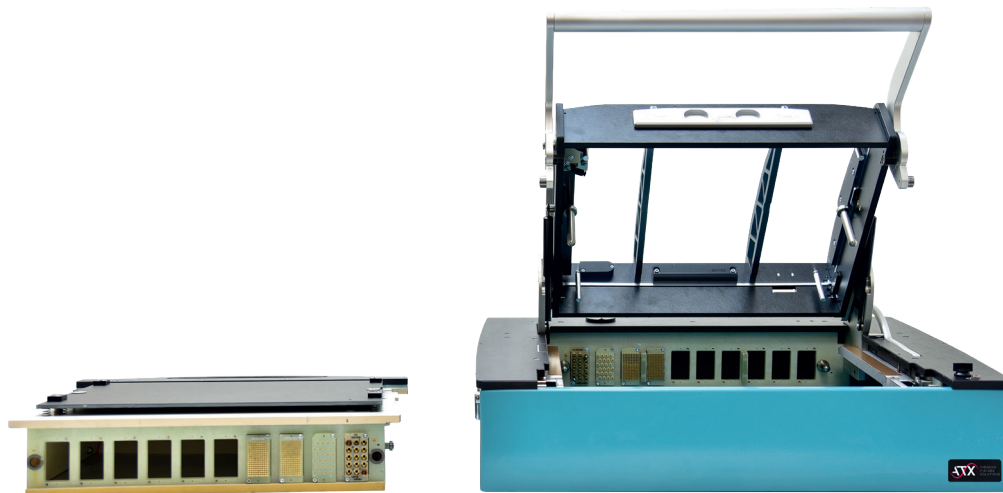
The GFK-Aperture is installed in our test fixtures as standard. All other interface mounting options can be ordered with or without the respective interface.



Interface Housing	GFK-Aperture	Pylon	VPC G12	VPC G12X	VPC G20	VPC G25	Reinhardt
E01-00117	x	x	x				
E01-00118	x	x	x	x	x	x	
E01-00125	x	x	x				
E01-00133	x	x	x			x	
E01-00217	x						

The assignments shown above are standard designs. However, due to our high variety of housings, special designs can be made after consultation.

MECHANICAL EXCHANGEABLE CASSETTE SYSTEM



MMIW2 - MAN MACHINE INTERFACE EXCHANGEABLE CASSETTE SYSTEM

Compact, ergonomic MMIW2 exchangeable cassette system with Top Loader function

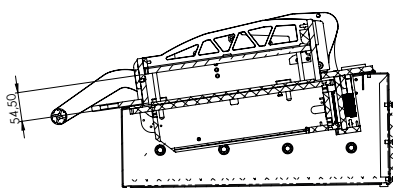
The new MMIW2 mechanical exchangeable cassette system consisting of the MMIWG2 basic unit and the MMIWK2 cassette provides you with even more convenience and efficiency. In your testing centre the low-cost cassette solution based on the MMI mechanism is ideal for frequently changing products. In switching between products you save time because no tools are required, while also benefiting from minimal maintenance requirements and short retooling times thanks to the additional hard-wearing interface.

The MMIW2 offers you even more ergonomics thanks to our new Top Loader function. After unlocking the cassette, it can be removed upwards; it is no longer necessary to open the housing to change the cassette. The simple and time-saving cassette change enables you to further reduce setup times and guarantees even faster further work on the test specimen.

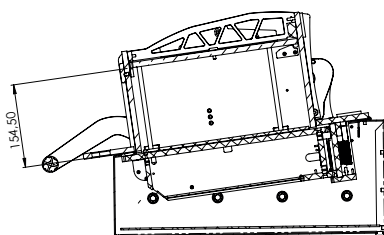
For the change system we use a pylon block interface that individually transfers the signals with 170-pin signal blocks, power and coaxial blocks as needed, as well as blocks for fibre optic cables and compressed air.

EXCHANGEABLE SYSTEM LEGEND

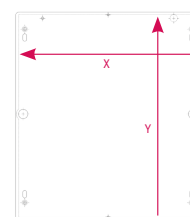
Mechanical exchangeable cassette system



MMIW2-Standard height



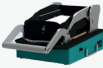

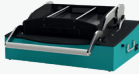
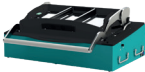
MMIW2-Special height




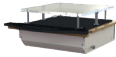


Moving plate dimension X x Y

MECHANICAL EXCHANGEABLE CASSETTE SYSTEM

BASIC UNIT WITH STANDARD HEIGHT

Designation	Fixture	Moving plate (X x Y)	Standard housing	Order number
MMIWGT-A		185 x 310	E01-00145	100247
MMIWG2-A*		294 x 310	E01-00124	100276
MMIWG2-B*		424 x 310	E01-00125	100277
MMIWG2-C		554 x 310	E01-00132	100278

EXCHANGEABLE CASSETTE - STANDARD 1200 N (MAX. 600 PROBES Á 2 N)

Designation	Cassette	Moving plate (X x Y)	Interface block	Order number
MMIWKT-A		185 x 310	4 blocks	100248
MMIWK-A		294 x 310	6 blocks	100638
MMIWK-B		424 x 310	10 blocks	100998
MMIWK-C		554 x 310	12 blocks	100661


EXCHANGEABLE CASSETTE - AMPLIFIED 1600 N (MAX. 800 PROBES Á 2 N)

Designation	Cassette	Moving plate (X x Y)	Interface block	Order number
MMIWK-AV		294 x 310	6 blocks	100643
MMIWK-BV		424 x 310	10 blocks	100999
MMIWK-CV		554 x 310	12 blocks	100662


All fixtures marked with * are also available with a high housing.

MECHANICAL EXCHANGEABLE CASSETTE SYSTEM


BASIC UNIT WITH SPECIAL HEIGHT

Designation	Fixture	Moving plate (X x Y)	Standard housing	Order number
MMIWG-CH		554 x 310	E01-00132	100692


EXCHANGEABLE CASSETTE - SPECIAL HEIGHT 1200 N (MAX. 600 PROBES Á 2 N)

Designation	Cassette	Moving plate (X x Y)	Interface block	Order number
MMIWK-CH		554 x 310	12 blocks	100693


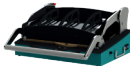
BASIC UNIT - TANDEM FIXTURE WITH 2 MECHANISMS IN 1 HOUSING

Designation	Fixture	Moving plate (X x Y)	Standard housing	Order number
MMIWGT-A-DO		2x 185 x 310	E01-00118	100201



EXCHANGEABLE CASSETTE - TANDEM FIXTURE

Designation	Cassette	Moving plate (X x Y)	Interface block	Order number
MMIWKT-A		185 x 310	4 blocks	100248 (required 2x)

BASIC UNIT - SUITABLE FOR MEWK-CASSETTE

Designation	Fixture	Moving plate (X x Y)	Standard housing	Order number
MMI-MEWG-A*		275 x 240	E01-00115	100646
MMI-MEWG-B*		445 x 240	E01-00117	100647

EXCHANGEABLE CASSETTE

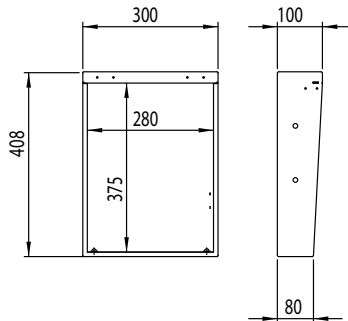
Designation	Cassette	Moving plate (X x Y)	Interface block	Order number
MEWK-A		275 x 240	-	100767
MEWK-B		445 x 240	-	100768

All fixtures marked with * are also available with a high housing.

AVAILABLE HOUSING TYPES

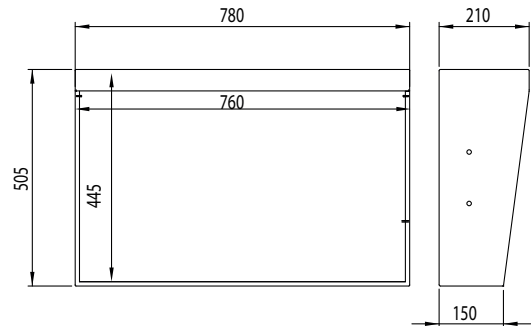
FOR MMIW TO FIT FLEXIBLY INTO YOUR TEST ENVIRONMENT

Housing with back panel (connectors can be mounted as required)



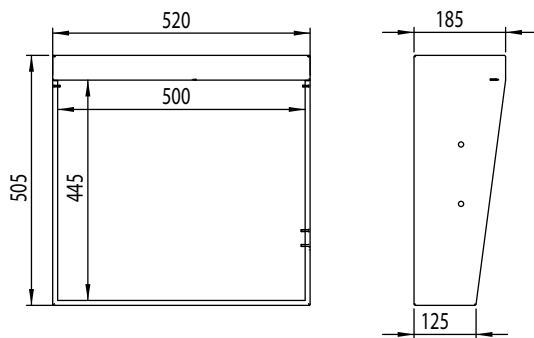
E01-00145

Standard housing for MMIWGT-A



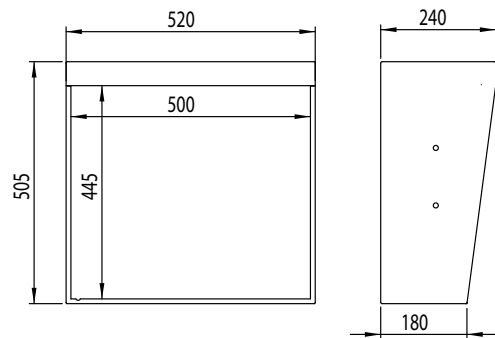
E01-00132

Standard housing for MMIWG2-C, MMIWG-CH



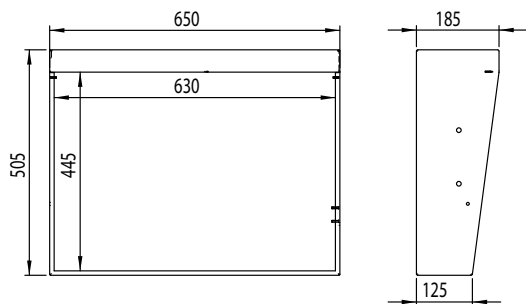
E01-00124

Standard housing for MMIWG2-A



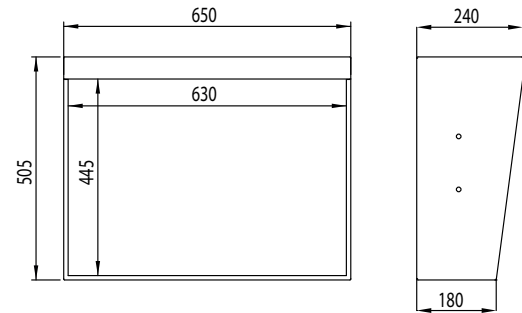
E01-00123

High housing for MMIWG2-A



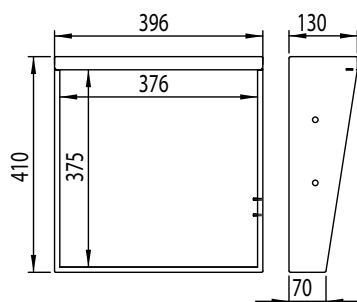
E01-00125

Standard housing for MMIWG2-B



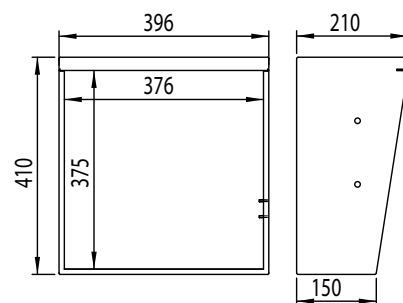
E01-00133

High housing for MMIWG2-B



E01-00115

Standard housing for MMI-MEWG-A



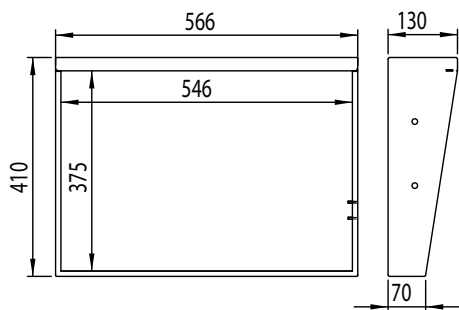
E01-00116

High housing for MMI-MEWG-A

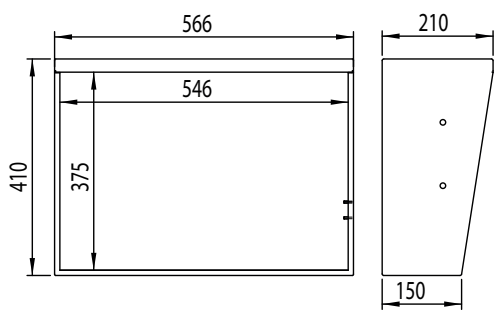
AVAILABLE HOUSING TYPES

FOR MMIW TO FIT FLEXIBLY INTO YOUR TEST ENVIRONMENT

Housing with back panel (connectors can be mounted as required)



E01-00117
Standard housing for MMI-MEWG-B

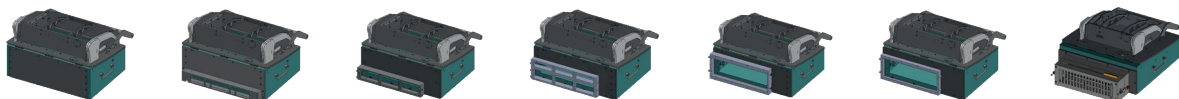


E01-00118
Standard housing for MMIWGT-A-DO
High housing for MMI-MEWG-B

INTERFACE

POSSIBILITY OF MOUNTING AN INTERFACE ON THE REAR WALL

The GFK-Aperture is installed in our test fixtures as standard. All other interface mounting options can be ordered with or without the respective interface.



Interface Housing	GFK-Aperture	Pylon	VPC G12	VPC G12X	VPC G20	VPC G25	Reinhardt
E01-00115	x						
E01-00116	x						
E01-00117	x	x	x				
E01-00118	x	x	x	x	x	x	
E01-00123	x	x	x				
E01-00124	x	x	x				x
E01-00125	x	x	x				
E01-00132	x	x	x				
E01-00133	x	x	x			x	
E01-00145	x						

The assignments shown above are standard designs. However, due to our high variety of housings, special designs can be made after consultation.

SPARE PARTS FOR THE MMI

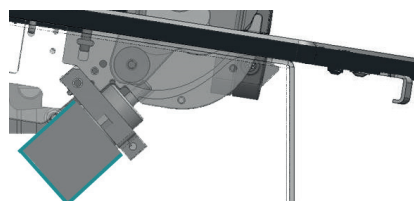
INTERLOCKS FOR MANUAL TEST STATIONS AND BASIC UNITS

These interlocks are not used as solenoid interlocks for safety-relevant projects.

Electrical interlocks for MMI-A/B/C/D

- locked -

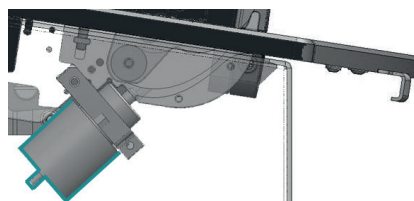
Order number	Designation
269001	Electr. interlocks left, 24 V currentless, locked
269002	Electr. interlocks right, 24 V currentless, locked



Electrical interlocks for MMI-A/B/C/D

- open -

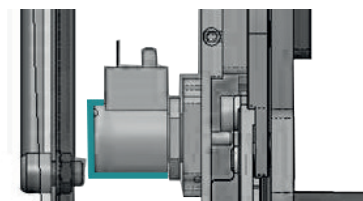
Order number	Designation
269027	Electr. interlocks left, 24 V currentless, open
269028	Electr. interlocks right, 24 V currentless, open



Electrical interlocks for MMIWG2

- locked -

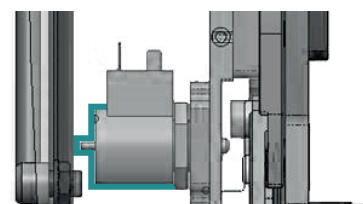
Order number	Designation
269011	Electr. interlocks left, 24 V currentless, locked
269033	Electr. interlocks right, 24 V currentless, locked



Electrical interlocks for MMIWG2

- open -

Order number	Designation
269036	Electr. interlocks left, 24 V currentless, open
269037	Electr. interlocks right, 24 V currentless, open



SPARE PARTS FOR THE MMI

Pneumatic interlocks

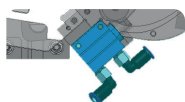
Order number	Designation
269022	Pneumatic interlock for MMI-B/C/L

Order number	Designation
269021	Pneumatic interlock for MMIWG2-A/B/C

The pneumatic locking system includes the following accessories, which are supplied fully assembled:

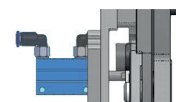
Pneumatic interlock I MMI-B/C/L

- 2x compact cylinder CDUJB10-6D
- 1x 3/2-way valve SYJ1314M-5LOU-Q
- 2x signal transmitter D-F8P



Pneumatic interlock I MMIWG2-A/B/C

- 2x compact cylinder CDUJB6-6S
- 1x 3/2-way valve SYJ1314M-5LOU-Q
- 2x signal transmitter D-F8P

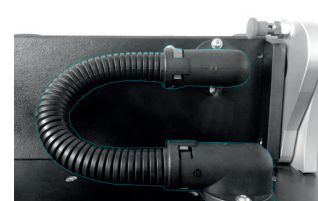


Transfer Option

Order number	Designation
100861	MMIZ-X drag chain for cable routing from the hood into the housing
100860	Armoured conduit for laying cables from the hood into the housing



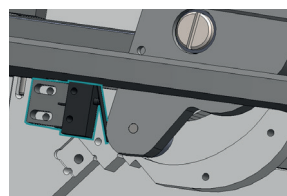
Drag chain



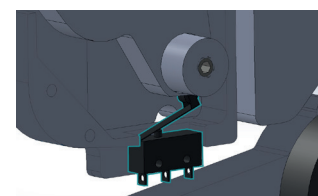
Armoured conduit

Micro Switch

Order number	Designation
269006	Micro switch left/right for MMI
269016	Micro switch left/right for MMIWG2



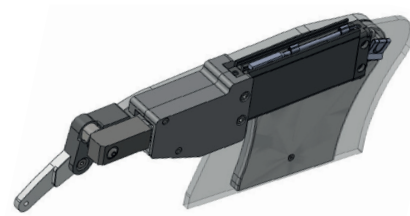
MMI-Variant



MMIWG2-Variant

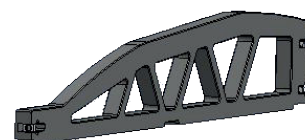
Auto-Open-Function

Order number	Designation
100679	Automatic opening for MMI-A/B (1x pneumatic cylinder)
100681	Automatic opening for MMI-C/D (2x pneumatic cylinders)



Strut

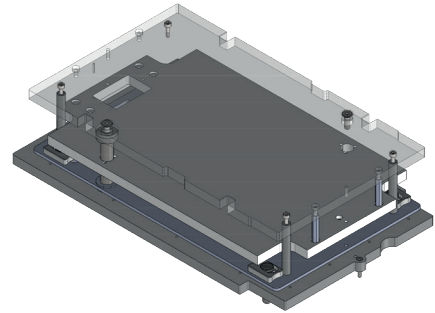
Order number	Designation
264012	Strut drawing no. E90-01304, Hornitex 10 mm



SPARE PARTS FOR THE MMI

Set of plates - MMI versions

Order number	Designation	Moving plate
100685	MMI-A set of plates	185 x 310
100649	MMI-B set of plates	275 x 310
100648	MMI-C set of plates	310 x 445
100671	MMI-LS floating	255 x 255
100672	MMI-L not floating	255 x 255

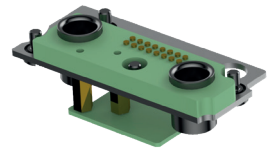


Top-Interface for MMIW

Order number	Designation
101014	Top-Interface for MMIWG basic unit 2x pneumatic, 16 contacts drawing no. B03-00192
101015	Top-Interface for MMIWK exchangeable cassette 2x pneumatic, 16 contacts drawing no. B03-00124



Top-Interface MMIWG



Top-Interface MMIWK

EXPANSION TENSIONS

Our fixtures guarantee safety as standard for voltages below 25 V AC (effective value) and 60 V DC (harmonic-free). For higher voltages, we therefore recommend a safety package that upgrades our fixtures accordingly.

Do you have questions about our security packages? Please contact us for your personal consultation.

ACCESSORIES FOR ALL MECHANICAL FIXTURES

All other accessories can be found in our brochure: „Fixture Accessories“.



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