

Customizing Accessories (Excerpt)

Marking Units

The INGUN Marking Units excel themselves with their sturdiness, compact size, simple assembly and their long-life. We offer various types to support all Fixture designs and concepts. Please note that the Engraver must be mounted vertical to the surface which is to be marked.

Screwing Units for Potentiometer Adjustment

The compact, manual or automatic-driven, Screwing Units enables potentiometer adjustment. The automatic Screwing Unit is driven by means of a flexible shaft, which allows an individual and compact mounting of the drive engine. The threaded section and the mounting holes in the housing enables multiple assembly possibilities in the Test Fixture. The automatic Screwing Unit is designed modularly – offering problem-free adaption of the Unit in regard to the various insertable tips and the special customer demands. The insertable tip itself is spring-loaded bedded.

Electric-driven Marking Units

Part No. 24447 Marking Unit-short with scratching Engraver, Ø 12 x 60 mm (SW 14), 12 V, Ø Circle 2 mm, Marking of hard surfaces (e.g. FR4, CEM1, etc.)



Marking

Part No. 25251 Marking Unit-short with cutting Engraver Ø 12 x 60 mm (SW 14), 12 V, Ø Circle 2 mm, Marking of soft surfaces (e.g. labels, hardwood, etc.)



Marking

Part No. 24456 Marking Unit-long with scratching Engraver, Ø 12 x 100 mm (SW 14), 12 V Ø Circle 2 mm, Marking of hard surfaces (e.g. FR4, CEM1, etc.)



Marking

Automatic Screwing Unit

Part No. 27791 Body of Potentiometer Screwing Unit

Part No. 27790 Replacable Unit without insertable tip

Individual insertable tip on request. Max. stroke approx. 4.0 mm, applied force by max. stroke approx. 1 N

Manual Screwing Unit

Part No. 17049 Manual Screwing Unit, cross-head and flat-head tip including

Manual Key/Button activation

Part No. 19637 Manual Key/Button activation



Marking Unit-short (Part No. 24447)



Marking Unit-short (Part No. 25251)



Marking Unit-long (Part No. 24456)



Automatic Screwing Unit



Manual Screwing Unit



Manual Key/ Button activation

Pneumatic-driven Marking Units

Part No. 25241 Marking Unit with cutting Engraver Ø 16 x 57 mm (SW 19), 0.6 MPa, Ø Circle 2 mm, Marking of hard surfaces (e.g. FR4, CEM1, etc.)



Marking

Part No. 29483 Marking Unit with milling Engraver Ø 16 x 57 mm (SW 19), 0.6 MPa, Ø Circle area with approx. Ø 1.0 to Ø 2.0 mm, Marking of hard and soft surfaces



Marking



Marking Unit (Part No. 25241)



Marking Unit (Part No. 29483)

Pylon Receiver

The Pylon Receiver from INGUN can be loaded with all INGUN Interface Blocks.



Part No. 32162
INGUN Pylon-Receiver (10 Interface Blocks) with extended contacting stroke (Further information see on page 47)

High-frequency Block 16-pole (2 GHz)



S-RC-016-2GHz-16
 Part No. 34581
 Loaded with: HFS-810 305 051 A 5306
S-ATS-016-2GHz-16
 Art.-Nr. 39524
 Loaded with: SB-810 Z
 Self-centering: ± 0.2 mm

High-frequency Block 16-pole (4 GHz)



S-RC-016-4GHz-16
 Part No. 34996
 Loaded with: HFS-840 305 051 A 5306
S-ATS-016-4GHz-16
 Part No. 34571
 Vollbestückt mit: SB-810 Z
 Selbstzentrierung: ± 0,2 mm

Interface Blocks

Interface Blocks, loaded with INGUN Test Probes, guarantee best contacting quality and low contact resistance. The INGUN Interface Blocks are used in the Intermediate Interfaces of the INGUN Interchangeable Fixture Kits (e.g. MA 21xx-Series) as well as in external Interfaces (e.g. Rohde&Schwarz, TestStation GR). The Working space is 15.1 ± 0.5 mm.

The in general not loaded RC- and ATS-High-frequency Blocks, prepared for loading of up to 16 High-frequency Test Probes respectively up to 16 Contact Terminals, can be loaded individually with only 1 to max. 16 Test Probes respectively Contact Terminal. Further information see our Product-information of the INGUN Interface Blocks.

Signal Block 170-pole (4 A)



S-RC-170-4A
 Part No. 27616
 Loaded with: GKS-945 357 106 A 1100
S-ATS-170-06
 Part No. 13515
 Loaded with: KT-158 06

Signal Block 170-pole (4 A) Low Ohm



S-RC-170-N-4A
 Part No. 31006
 Loaded with: HSS-118 317 175 A 1102
S-ATS-170-06
 Part No. 13515
 Loaded with: KT-158 06

Optical wave-guide Block 45-pole



S-RC-045-LWL
 Part No. 27618
 Loaded with: KS-004 35 G-K
 Without: LWL (Part No. 20747)
S-ATS-045-LWL
 Part No. 29448
 Loaded with: KS-004 35 G-K
 Without: LWL (Part No. 20747)

Optical wave-guide Block 20-pole for Feasa OH-3



S-RC-020-LWL-F
 Part No. 38696
 Not loaded, loadable with e.g.: 20x Feasa OH-3 (Part No. 33685)
S-ATS-045-LWL
 Part No. 29448
 Loaded with: KS-004 35 G-K
 Without: LWL (Part No. 20747)

High-current Block 24-pole (24 A)



S-RC-24-24A
 Part No. 27628
 Loaded with: HSS-120 317 300 A 2202 M
S-ATS-24-10
 Part No. 27620
 Loaded with: KT-120 L3 E02-30

High-current Block 2-pole (50 A)



S-RC-002-50A
 Part No. 31549
 Loaded with: HSS-150 317 300 A 5002 M
S-ATS-002-50
 Part No. 31550
 Loaded with: KT-150 L3 E03-M3

Pneumatic Block 8-pole RC-block self closing



S-RC-008-PK3-G
 Part No. 37820
 Loaded with: Connector female (Part No. 37819)
S-ATS-008-PK3-G
 Part No. 37821
 Loaded with: Connector male (Part No. 37818)

For Further Interface Blocks see our Product Information INGUN Interface Blocks.



Contacting of RJ-Plugs and USB-Connectors

For contacting RJ- and USB-Plugs with little wear and resistance INGUN offers especially designed and manufactured test plugs, which are manufactured with robust copper-beryllium wires Tooling Pins.

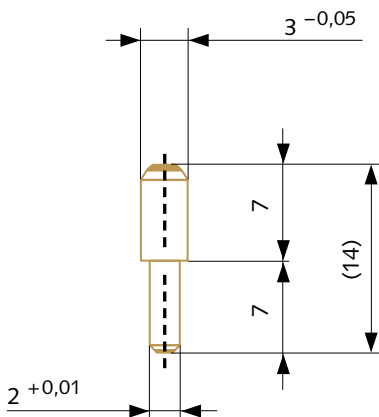
RJ-Plugs	
Part No. 17824	RJ-10, 4-channels
Part No. 17825	RJ-12, 6-channels
Part No. 17826	RJ-45, 8-channels
Part No. 17827	RJ-48, 10-channels
USB Test Plugs	
Part No. 17829	USB Test Plug, 4-channels, type B
Part No. 21072	USB Test Plug Mini, 5-channels, type B
Part No. 34816	USB Test Plug Micro, 5-channels, type B

Mounting Shoes are available for the assembly of all Test Plugs.
Further variations of test plugs are available on request.

Tooling Pins

Rigid Tooling Pins

The Tooling Pins from INGUN register the PC-Board in the applicable Tooling Pin Holes and therefore guaranty an exact registration of the PC-Board on the Test Fixture. The Tooling Pins are available with diameters from 1.9 to 5 mm and in steps of 0.1 mm. They have a tolerance of 0 /-0.05 mm.



Spring-loaded Tooling Pins GFS-874

To enable high-precision customizing INGUN offers spring-loaded Tooling Pins. In this case the PC-Board is registered via a conical-shaped, spring-loaded Tooling Pin. To customize the Fixture you need a pair of Tooling Pins, i.e. consisting of one cone-shaped Tooling Pin and one dagger-shaped Tooling Pin.



Spring-loaded Tooling Pins as a pair (Dagger and Cone-shaped)

For Tooling Pin Holes:

Ø 2.0 mm to Ø 3.5 mm

Part No. 24481 cone-shaped

Part No. 25214 dagger-shaped

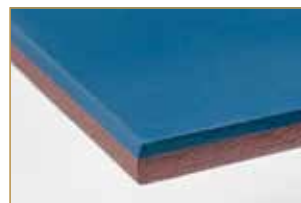
For Tooling Pin Holes:

Ø 3.5 mm to Ø 5.5 mm

Part No. 25215 cone-shaped

Part No. 25217 dagger-shaped

Further special Tooling Pins are available – such as e.g. Tooling Pins with mounting disk, Special Tooling Pins for In-line Systems (e.g. with optical safety check or spring-loaded)



Cleaning Mats

PC-Boards often show signs of flux deposits and oxide layers, which contaminate the surface and create an insulating layer. With the increased

usage of the Test Probes the deposits are transferred to the tips of the Test Probes. INGUN proposes cleaning the tips of the Probes with a Cleaning Mat.

Cleaning is recommended for those tip-styles with self-cleaning features, e.g. 01, 09, 15, 31, 38, 77, 91, 93, 97, 98. Contact Cleaning Mats can be used on all INGUN Test Fixtures without Pressure Frames and are available in various sizes. Sizes and prices on request!

Further details – also in regard to Cleaning Brushes – can be found on the applicable Product Data Sheets.