

ELECTRONIC UNIVERSAL TESTING MACHINES (ADVANCED TYPE)

CUSTOMIZABLE



SPECIFICATION FOR LIGHT-SENSING INTERACTIVE SYSTEM

Equipment status	Light strip color	Light strip behavior
Power on	yellow	steady on
Standby (servo OFF)	yellow	bidirectional running lights
Standby (servo ON)	blue	steady on
Standby (servo ON)>60s	blue	breathing light
Alarm (limit, overload, etc.)	red	steady on
Upward	green	upward running lights
Downward	green	downward running lights
Load holding	green	steady on

- According to GB/T, ISO, ASTM etc.
- For testing and researching the mechanical properties such as tension, compression, bending, shear, peeling and tearing of products including plastics, rubber, wires, electronic connectors (for insertion and extraction), metal wires, films, textiles, adhesives, biomaterials, elastomers, food packaging, small components, paper and springs
- Single-column structure, with compactness and high rigidity
- With powerful operation and analysis software
- With touchscreen and button integrated control box

SPECIFICATION

Code	UTM-GA10	UTM-GA50	UTM-GA100	UTM-GA500	UTM-GA1000	UTM-GA2500	UTM-GA5000
Max. test force	10N	50N	100N	500N	1000N	2500N	5000N
Accuracy class	0.5 class						
Accuracy of test force	±0.5%						
Range of test force	0.4%~100%FS						
Resolution of test force	1/600000FS						
Accuracy of crossbeam displacement	±0.2% or ±0.01mm (whichever is larger)						
Resolution of crossbeam displacement	0.0133μm						
Range of test speed adjustment	0.00005~2400mm/min						
Range of return speed adjustment	0.00005~3000mm/min						
Accuracy of crossbeam speed	0.05mm/min~100%FS, ±0.2% of the set value						
Resolution of deformation	1/600000FS						
Accuracy of strain measurement	superior to the requirements of standards such as GB/T 228, ISO 6892-1, ASTM E8, and ASTM E21						
Frequency of data sampling	1200Hz						
Frequency of control loop	1200Hz						
Stiffness	10kN/mm						
Vertical test space*	960mm						
Distance between axis and frame	100mm						
Protection function	force overload protection, limit protection, anti-collision protection, voltage overload protection						
Power supply	AC 220V, 50Hz, 0.6kW						
Dimension (L×W×H)	580×520×1580mm						
Weight	150kg						

*Can be customized according to test requirements

SPECIFICATION OF ELECTRONIC EXTENSOMETER (OPTIONAL)

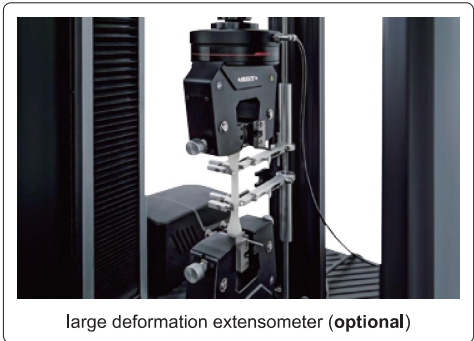
Code	Accuracy of deformation	Gauge length	Deformation
UTM-G-EX12D5-5	±0.5%	12.5mm	5mm
UTM-G-EX15-5		15mm	5mm
UTM-G-EX20-10		20mm	10mm
UTM-G-EX25-5		25mm	5mm
UTM-G-EX25-10		25mm	10mm
UTM-G-EX25-12D5		25mm	12.5mm
UTM-G-EX50-5		50mm	5mm
UTM-G-EX50-10		50mm	10mm
UTM-G-EX50-25		50mm	25mm
UTM-G-EX75-25		75mm	25mm
UTM-G-EX100-5		100mm	5mm
UTM-G-EX100-10		100mm	10mm
UTM-G-EX100-25		100mm	25mm
UTM-G-EX200-10		200mm	10mm
UTM-G-EX200-20		200mm	20mm
UTM-G-EX220-20		220mm	20mm
UTM-G-EX250-10		250mm	10mm
UTM-G-EX250-25		250mm	25mm
UTM-G-EX500-10		500mm	10mm
UTM-G-EX500-25		500mm	25mm
UTM-G-EX600-10		600mm	10mm



electronic extensometer (optional)

SPECIFICATION OF LARGE DEFORMATION EXTENSOMETER (OPTIONAL)

Code	UTM-G-EX100L
Range of deformation	10~850mm
Accuracy of deformation	±0.5%
Resolution of deformation	7.8μm
Gauge length	10mm, 15mm, 20mm, 25mm, 50mm, 75mm, 100mm (adjustable)
Accuracy of gauge length	±0.25mm (room temperature)
Type of knife edge	flat blade edge, rubber roller blade edge
Range of clamp	thickness≤20mm, width≤30mm
Range of clamping force	4.5~23.5N
Length of measure arm	142~165mm
Weight	5kg



large deformation extensometer (optional)

SPECIFICATION OF AUTOMATIC EXTENSOMETER (OPTIONAL)

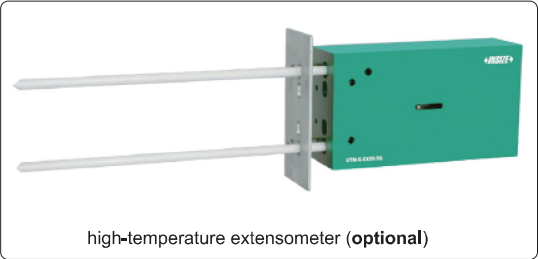
Code	UTM-G-EX350A	UTM-G-EX450A
Length of clamping arm	350mm	450mm
Range of deformation	0~80mm	0~100mm
Accuracy of deformation	<0.0015mm (deformation: 0~0.3mm) <0.5% (deformation: 0.3~100mm)	
Resolution of deformation	0.5μm	
Range of gauge length	20~250mm	
Accuracy of gauge length	±0.5%	
Type of knife edge	flat blade edge, arc blade edge	
Range of clamp	flat: 0.2~40mm, circular: Ø2~Ø40mm	



automatic extensometer (optional)

SPECIFICATION OF HIGH-TEMPERATURE EXTENSOMETER (OPTIONAL)

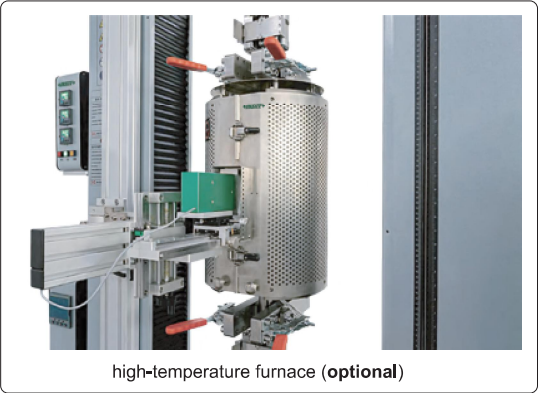
Code	UTM-G-EX50-5H
Range of deformation	0~5mm
Accuracy of deformation	±0.5%
Resolution of deformation	0.01μm
Gauge length	25mm, 50mm (adjustable)
Sensitivity	2mV/V
Linearity	<0.15%FS
Type of knife edge	flat blade edge
Clamping force	200cN
Test temperature	room temperature~1200°C
Weight	0.95kg



high-temperature extensometer (optional)

SPECIFICATION OF HIGH-TEMPERATURE FURNACE (OPTIONAL)

Code	UTM-G-FU1200
Internal structure	three-segment electric heating elements with segmented control
Range of temperature control	200°C~1200°C
Temperature fluctuation	±3°C (200°C~900°C), ±4°C (900°C~1200°C)
Temperature gradient	≤3°C (200°C~900°C) ≤4°C (900°C~1200°C)
Effective temperature uniformity	150mm
Furnace heating wire	resistance wire: Ø0.8~Ø1.2mm KANTHAL-A1
Service life of high-temperature furnace	operating time>10000 hours (≤1200°C)
Heating power	3.2kW
Power supply	AC380V, 3Ø, 50Hz



high-temperature furnace (optional)



video extensometer (optional)



pneumatic parallel-push fixture (optional)

STANDARD DELIVERY

Main unit	1 pc
Control box	1 pc
Measuring software	1 pc
Computer	1 pc
Printer	1 pc
Compression fixture	1 set
Tensile fixture	1 set

OPTIONAL ACCESSORY

Fixture	rubber tensile fixture, film tensile fixture, bending fixture, pneumatic fixture other fixtures (customized)
Electronic extensometer	UTM-G-EX series (customizable)
Large deformation extensometer	UTM-G-EX100L (customizable)
Automatic extensometer	UTM-G-EX350A (customizable) UTM-G-EX450A (customizable)
High-temperature extensometer	UTM-G-EX50-5H (customizable)
High-temperature furnace	UTM-G-FU1200 (customizable)
Video extensometer	UTM-M series
Security door	UTM-G-SD1
Workbench	UTM-G-W1