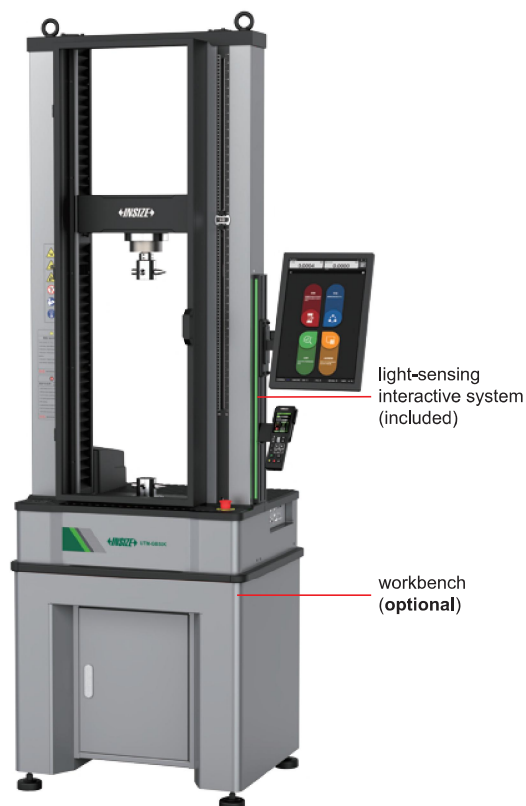


ELECTRONIC UNIVERSAL TESTING MACHINES (ADVANCED TYPE)

CUSTOMIZABLE



UTM-GB50K

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 and peeling of metals, non-metals and composite materials
- With a high-rigidity frame structure to achieve low-vibration and precise loading
- With powerful operation and analysis software
- With touchscreen and button integrated control box

SPECIFICATION

Code	UTM-GB10K	UTM-GB50K	UTM-GB100K	UTM-GB300K
Max. test force*	10kN	50kN	100kN	300kN
Type of testing machine*	bench-top single-space	bench-top single-space	floor-standing single-space	
Accuracy class	class 0.5			
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	0.0110μm	0.0100μm	0.0095μm	0.0067μm
Minimum test speed	0.00005mm/min			
Maximum test speed	2000mm/min	900mm/min	850mm/min	600mm/min
Maximum return speed	2400mm/min	1500mm/min	1200mm/min	1200mm/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	50kN/mm	180kN/mm	270kN/mm	380kN/mm
Vertical test space*	1090mm	1000mm	1350mm	1200mm
Effective test width	420mm	420mm	600mm	600mm
Protection function	force overload protection, limit protection, anti-collision protection, voltage overload protection			
Power supply	AC 220V 50/60Hz, 1kW	AC 220V 50/60Hz, 1.5kW	AC 380V, 3Ø 50/60Hz, 2kW	AC 380V, 3Ø 50/60Hz, 4.6kW
Dimension (L×W×H)	770×640×1700mm	770×640×1700mm	1175×710×2550mm	1175×710×2550mm
Net weight	310kg	400kg	1000kg	1300kg

*Can be customized according to test requirements



UTM-GB300K



UTM-GB600K



control cabinet (included)

SPECIFICATION

Code	UTM-GB600K	UTM-GB1000K	UTM-GB2000K
Max. test force	600kN	1000kN	2000kN
Type of testing machine*	floor-standing, single-space		
Accuracy class	class 0.5		
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	0.0110μm		
Minimum test speed	0.0005mm/min		
Maximum test speed	330mm/min	300mm/min	325mm/min
Maximum return speed	500mm/min	400mm/min	400mm/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	900kN/mm	1330kN/mm	1643kN/mm
Vertical test space*	750mm	600mm	800mm
	including hydraulic horizontal-thrust fixture		
Effective test width	750mm	890mm	1150mm
Protection function	force overload protection, limit protection, anti-collision protection, voltage overload protection		
Power supply	AC 380V, 3Ø 50/60Hz, 7kW	AC 380V, 3Ø 50/60Hz, 11kW	AC 380V, 3Ø 50/60Hz, 22kW
Dimension (L×W×H)(mm)	1430×850×2760	1570×1000×3100	1842×1150×3803
Net weight	3500kg	6200kg	15000kg

*Can be customized according to test requirements

SPECIFICATION OF ELECTRONIC FIXTURE (INCLUDED)

Code		UTM-GB10K	UTM-GB50K	UTM-GB100K	UTM-GB300K
Compression fixture	max. force	20kN	100kN	100kN	300kN
	diameter	Ø100mm	Ø100mm	Ø150mm	Ø150mm
	operating temperature	room temperature			
Wedge ^{**} fixture	max. force	20kN	50kN	100kN	300kN
	type of fixture	mechanical fixture			
	operating temperature	room temperature			
	clamping range of flat jaw	0~6mm 6~12mm	0~7mm 7~14mm 14~21mm	0~7mm 7~14mm 14~21mm	0~8mm 8~16mm 16~24mm 24~32mm
	clamping range of V-jaw	Ø4~Ø9mm Ø9~Ø14mm	Ø4~Ø9mm Ø9~Ø14mm Ø14~Ø19mm	Ø4~Ø9mm Ø9~Ø14mm Ø14~Ø19mm	Ø4~Ø9mm Ø9~Ø16mm Ø16~Ø23mm Ø23~Ø30mm

Code		UTM-GB600K	UTM-GB1000K	UTM-GB2000K
Compression fixture	max. force	600kN	1000kN	2000kN
	operating temperature	room temperature		
Wedge ^{**} fixture	max. force	600kN	1000kN	2000kN
	type of fixture	hydraulic flat-push fixture		
	operating temperature	room temperature		
	clamping range of flat jaw	2~60mm	2~60mm	2~80mm
	clamping range of V-jaw	Ø10~Ø20mm Ø20~Ø45mm	Ø15~Ø30mm Ø30~Ø60mm	Ø15~Ø40mm Ø40~Ø100mm

^{**} High-hardness jaw clamps can be customized

SPECIFICATION OF ELECTRONIC EXTENSOMETER (OPTIONAL)

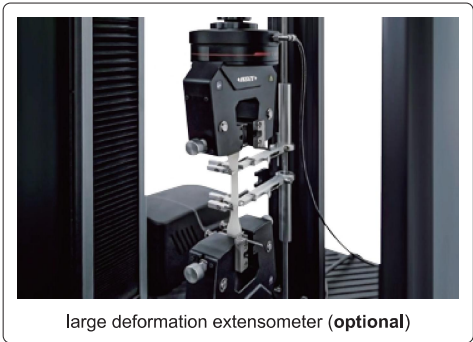
Code	Accuracy of deformation	Gauge length	Deformation
UTM-G-EX12D5-5	±0.5%	12.5mm	5mm
UTM-G-EX15-5		15mm	5mm
UTM-G-EX20-10		20mm	10mm
UTM-G-EX25-5		25mm	5mm
UTM-G-EX25-10		25mm	10mm
UTM-G-EX25-12D5		25mm	12.5mm
UTM-G-EX50-5		50mm	5mm
UTM-G-EX50-10		50mm	10mm
UTM-G-EX50-25		50mm	25mm
UTM-G-EX75-25		75mm	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
Net weight	5kg



large deformation extensometer (optional)

SPECIFICATION OF AUTOMATIC EXTENSOMETER (OPTIONAL)

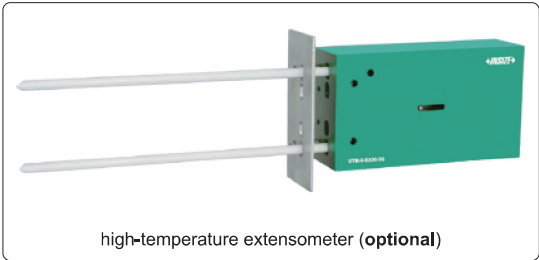
Code	UTM-G-EX350A	UTM-G-EX450A
Length of clamping arm	350mm	450mm
Range of deformation	0~80mm	0~100mm
Accuracy of deformation	<0.0015mm (deformation: 0~0.3mm) <0.5% (deformation: 0.3~100mm)	
Resolution of deformation	0.5μm	
Range of gauge length	20~250mm	
Accuracy of gauge length	±0.5%	
Type of knife 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)

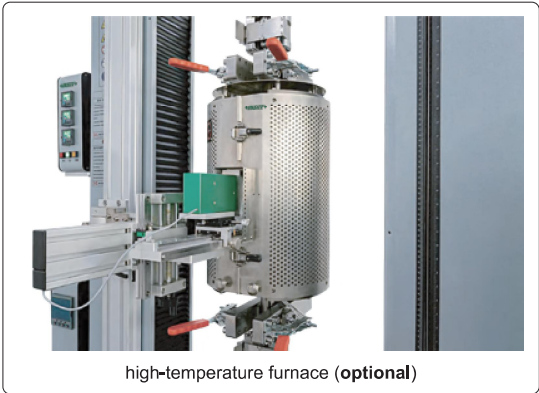
Code	UTM-G-EX50-5H
Range of deformation	0~5mm
Accuracy of deformation	±0.5%
Resolution of deformation	0.01μm
Gauge length	25mm, 50mm (adjustable)
Sensitivity	2mV/V
Linearity	<0.15%FS
Type of knife edge	flat blade edge
Clamping force	200cN
Test temperature	room temperature~1200°C
Net weight	0.95kg



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)

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



pneumatic parallel-push fixture (optional)

OPTIONAL ACCESSORY

Fixture	bending fixture, shear fixture, pneumatic fixture, hydraulic 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
Safety guard	UTM-G-SD2
Workbench	UTM-G-W2