# **Mechanical Force Gauges**

# PSM





- Specifications
   Stroke:10mm
   Graduation:200lines(150 lines for 30N, 300N, 3K, 30K)
   Measurement mode:Track and peak mode(selectable)
- Applications
- •Measuring of the contact pressure for touch panel or keyboard.
- •Measuring of the bonding strength of adhesive tapes and the peel strength of adhesive sheets. \*Digital force gauges are appropriate for measurements with sudden force change



Its high-resolution scale has more calibration points than other models. It helps you to avoid misreading.

Covers the measurements of low to medium force between 20N~500N.

| Model    | Model Capacity Resolution |         | Thread |
|----------|---------------------------|---------|--------|
| PSM-20N  | 20N                       | DN 0.1N |        |
| PSM-30N  | 30N                       | 0.2N    |        |
| PSM-50N  | 50N 0.25N                 |         |        |
| PSM-100N | 100N                      | 0.5N    | M6     |
| PSM-200N | 200N 1N                   |         | ]      |
| PSM-300N | 300N                      | 2N      |        |
| PSM-500N | 500N                      | 2.5N    |        |

| Model   | Capacity | Resolution | Thread |
|---------|----------|------------|--------|
| PSM-2K  | 2kgf     | 10gf       |        |
| PSM-3K  | 3kgf     | 3kgf 20gf  |        |
| PSM-5K  | 5kgf     | 25gf       |        |
| PSM-10K | 10kgf    | 50gf       | M6     |
| PSM-20K | 20kgf    | 100gf      | ]      |
| PSM-30K | 30kgf    | 200gf      | 1      |
| PSM-50K | 50kgf    | 250gf      | 7      |







\*Att=Attachment
 Specifications
 •Stroke:10mm
 •Graduation:100lines(120 lines for 30N, 300N, 3K, 30K, 30lb)
 •Measurement mode:Track and peak mode(selectal Peak hold function
 •Environment:O-++40C
 •Weight:Approx.300g
 •Dimension:W60×D40×H156mm
 •Included:UKT=4 tension attachments(Small Hook, Extension Shaft, Large Hook, Y Hook),
 UKK=5 compression attachments(Flat Tip, Conical Tip, Chised Tip, Notched Tip, Extension Shaft),
 Carrying Case, Instruction Manual, Inspection Certificate

#### Applications

•Measuring of the contact pressure for touch panel or keyboard.

•Measuring of the bonding strength of adhesive tapes and the peel strenght of adhesive sheets. \*Digital force gauges are appropriate for measurements with sudden force change

# PSH reliability. 500N~3000N. Model Capacity Resolution Thread PSH set 6/8 M6/M10 Push/Pul

#### ±0.1%.F.S.

- \*Att.=Attachment © Specifications Stroke: 10mm Graduation: 100lines (120 lines for 3000N, 300K, 300lb) Measurement mode: Track and peak mode(selectable) Accessory: Attachments 6pcs (to page 21), 2 exclusive handles, 4 installation bolts, Carrying Case, Operation Manual,

## Applications

- •Strength test for various materials (tension test, compression test, shearing test, etc.)
- •Measuring of attraction/repulsion force of solenoid or magnet.
- •Adhesion test of laminated tubes.
- \*Digital force gauges are appropriate for measurements with sudden force change.

## Hogh Capacity Standard Model

Extra strong body supports high load range with best

Covers the measurements of high force between

| PSH-500N  | 500N     | N 5N                |        |  |
|-----------|----------|---------------------|--------|--|
| PSH-1000N | 1000N    | 10N                 |        |  |
| PSH-2000N | 2000N    | 20N                 |        |  |
| PSH-3000N | 3000N    | 25N                 |        |  |
| Model     | Capacity | Capacity Resolution |        |  |
| PSH-50K   | 50kgf    | 500gf               |        |  |
| PSH-100K  | 100kgf   | 1 kgf               |        |  |
| PSH-200K  | 200kgf   | 2kgf                |        |  |
| PSH-300K  | 300kgf   | 2.5kgf              |        |  |
| Model     | Capacity | Resolution          | Thread |  |
| PSH-200lb | 200lbf   | 2lbf                |        |  |
| PSH-300lb | 300lbf   | 2.5lbf              | M10    |  |
| PSH-500lb | 500lbf   | 5lbf                | 1      |  |

## Selection of suitable force gauge

We classify force gauges into two groups: mechanical and digital. Each model has specific features and functions. Suitable force gauge must be chosen according to measuring purpose.

|   | Comparison of mechanical and digital force gauges   |                               |  |  |
|---|---|-------------------------------|--|--|
|   | Digital Force Gauge   |                               | Mechanio   |  |
| Advantage   | <ul> <li>Less reading error</li> <li>Connectable to PC, and other equipment</li> <li>Various functions as digital instrument</li> <li>Suitable for impact and break point test</li> </ul> |                               | <ul><li>No electricity is required</li><li>Durable</li><li>Possible to read force trans</li></ul>                  |  |
| Weakness  | <ul><li>Difficult to read force transition without software</li><li>Necessary to charge a battery</li></ul>   |                               | Unsuitable for impact and     Reading error might occur  |  |
| Please choose   | Sel<br>suitable range of force gauge as the following<br>Measuring method   | ection of suitable<br>method. | range<br>Selection of the ra   |  |
| When you do high speed test as impact and break point |   |                               | Please select the capacity is 200%<br>For example; Measuring value: 10N In<br>S-20N which is double capacity of me |  |
| when you do   | slow speed test as elongation test  | Ple<br>For                    | ease select the capacity is 150%<br>example;Measuring value:30N In f<br>Suitable Capacity is 45N and ch            |  |
| Please  | note that force gauges are easily broken if force ex  | ceeding capacity is a         | pplied, regardless power on/off.   |  |

We recommend attachments whose weight is less than 10% of gauge capacity. Please be careful to select an attachment when you use small range gauge.



| Compact Model                   |
|---------------------------------|
| (for tension / for compression) |

The smallest in dimension among all mechanical gauges Ideal for built in narrow space.

Measuring direction is specialized:UKT for tension and UKK for compression.

| Model    |   | Canacity   | Posolution   | Throod  |
|----------|---|--|--|---|
| Tension  | Compression   | Capacity   | Resolution   | Inread  |
| UKT-20N  | UKK-20N   | 20N  | 0.2N   |   |
| UKT-30N  | UKK-30N   | 30N  | 0.25N  |   |
| UKT-50N  | UKK-50N   | 50N  | 0.5N   |   |
| UKT-100N | UKK-100N  | 100N   | 1.0N   | MO  |
| UKT-200N | UKK-200N  | 200N   | 2.0N   |   |
| UKT-300N | UKK-300N  | 300N   | 2.5N   |   |
| Mo       | dol   |  |  |   |
| Tension  | Compression   | Capacity   | Resolution   | Thread  |
| UKT-2K   | UKK-2K  | 2kgf   | 20gf   |   |
| UKT-3K   | UKK-3K  | 3kgf   | 25gf   |   |
| UKT-5K   | UKK-5K  | 5kgf   | 50gf   |   |
| UKT-10K  | UKK-10K   | 10kgf  | 100gf  | MO  |
| UKT-20K  | UKK-20K   | 20kgf  | 200gf  |   |
| UKT-30K  | UKK-30K   | 30kgf  | 250gf  |   |
| Мо       | del   | Caraalta   | Deselution   | <b>T</b> I I  |
| Tension  | Compression   | Capacity   | Resolution   | Inread  |
| UKT-5lb  | UKK-5lb   | 5lbf   | 0.05lbf  |   |
| UKT-10lb | UKK-10lb  | 10lbf  | 0.1lbf   |   |
| UKT-20lb | UKK-20lb  | 20lbf  | 0.2lbf   | M6  |
| UKT-30lb | UKK-30lb  | 30lbf  | 0.25lbf  |   |
| UKT-50lb | UKK-50lb  | 50lbf  | 0.5lbf   |   |
|          | Mo           Tension           UKT-20N           UKT-30N           UKT-50N           UKT-100N           UKT-200N           UKT-200N           UKT-200N           UKT-300N           UKT-20N           UKT-300N           UKT-300N           UKT-2K           UKT-5K           UKT-10K           UKT-20K           UKT-30K           Mo           Tension           UKT-5Ib           UKT-10Ib           UKT-20Ib           UKT-30Ib | Model           Tension         Compression           UKT-20N         UKK-20N           UKT-30N         UKK-30N           UKT-50N         UKK-30N           UKT-100N         UKK-50N           UKT-100N         UKK-100N           UKT-200N         UKK-200N           UKT-200N         UKK-200N           UKT-200N         UKK-200N           UKT-200N         UKK-200N           UKT-30N         UKK-20N           UKT-30N         UKK-30N           UKT-30K         UKK-30K           UKT-5K         UKK-5K           UKT-10K         UKK-20K           UKT-20K         UKK-20K           UKT-30K         UKK-30K           Model         Tension           Compression         UKT-50L           UKT-51B         UKK-51B           UKT-101b         UKK-20Ib           UKT-201b         UKK-20Ib           UKT-201b         UKK-20Ib           UKT-201b         UKK-20Ib           UKT-301b         UKK-301b | Model         Capacity           Tension         Compression         Capacity           UKT-20N         UKK-20N         20N           UKT-30N         UKK-30N         30N           UKT-50N         UKK-50N         50N           UKT-100N         UKK-100N         100N           UKT-200N         UKK-200N         200N           UKT-200N         UKK-200N         200N           UKT-200N         UKK-200N         300N           Model         Capacity           Tension         Compression         Capacity           UKT-3K         UKK-2K         2kgf           UKT-5K         UKK-5K         5kgf           UKT-10K         UKK-20K         20kgf           UKT-20K         UKK-20K         20kgf           UKT-20K         UKK-30K         30kgf           UKT-30K         UKK-30K         30kgf           UKT-5Ib         UKK-5Ib         5lbf           UKT-10Ib         UKK-10Ib         10lbf           UKT-20Ib         UKK-20Ib         20lbf           UKT-20Ib         UKK-20Ib         30lbf           UKT-30Ib         UKK-30Ib         30lbf | ModelCapacityResolutionTensionCompressionCapacityResolutionUKT-20NUKK-20N20N0.2NUKT-30NUKK-30N30N0.25NUKT-50NUKK-50N50N0.5NUKT-100NUKK-100N100N1.0NUKT-200NUKK-200N200N2.0NUKT-300NUKK-300N300N2.5NModelCapacityResolutionTensionCompressionCapacityUKT-3KUKK-3K3kgf25gfUKT-5KUKK-5K5kgf50gfUKT-10KUKK-10K10kgf100gfUKT-20KUKK-20K20kgf200gfUKT-30KUKK-30K30kgf250gfModelCapacityResolutionUKT-30KUKK-30K30kgf250gfUKT-51bUKK-51b5lbf0.05lbfUKT-101bUKK-101b10lbf0.1lbfUKT-201bUKK-201b20lbf0.2lbfUKT-201bUKK-201b20lbf0.2lbfUKT-301bUKK-301b30lbf0.2l5lf |

#### and digital force gauges

- Mechanical Force Gauge
- •No electricity is required
- Durable
- •Possible to read force transition
- •Unsuitable for impact and break point test
- •Reading error might occur by individual difference

#### table range

#### Selection of the range

Please select the capacity is 200% of measuring value. For example; Measuring value: 10N In the case of ZTS series ZTS-20N which is double capacity of measuring value is suitable.

Please select the capacity is 150% of measuring value. For example; Measuring value: 30N In the case of ZTS series Suitable Capacity is 45N and choose ZTS-50N.