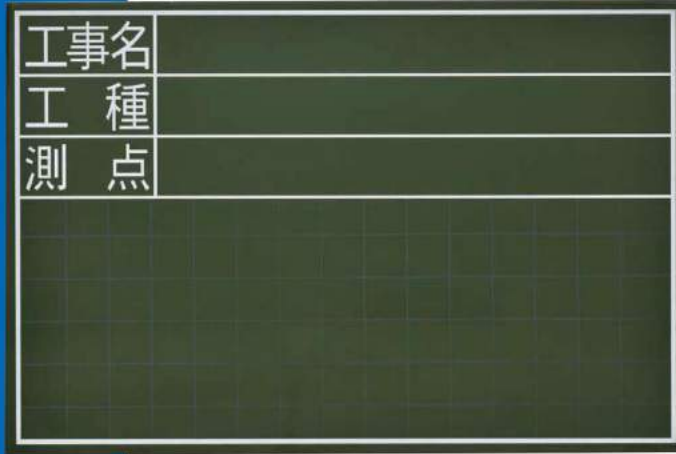




# 8. Surveying Products



Packaging Shrink package Box Vinyl package + header card Card No package  
 Steeve package Bag Clear package Vinyl package

## Aluminum Leveling Rod 60mm Wide



76931



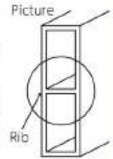
76926

| Item Code | Description                  | Thickness (mm) | Weight (g) | JAN Code        | Packing Unit | Package |
|-----------|------------------------------|----------------|------------|-----------------|--------------|---------|
| 76931     | 30 cm                        | 6              | 105        | 4 960910 769311 | 20           |         |
| 76932     | 50 cm                        | 6              | 175        | 4 960910 769328 |              |         |
| 76933     | 70 cm                        | 6              | 250        | 4 960910 769335 |              |         |
| 76934     | 1 m                          | 6              | 365        | 4 960910 769342 |              |         |
| 76935     | 1.1 m                        | 6              | 405        | 4 960910 769359 |              |         |
| 77351     | 1.5 m                        | 6              | 510        | 4 960910 773516 | 10           |         |
| 77352     | 2 m                          | 6              | 650        | 4 960910 773523 |              |         |
| 76926     | Cross Fitting for 60 mm Wide | 70x25x68       | 126        | 4 960910 769267 |              |         |

## Leveling Rod

### Features

- Light, thin aluminum material
- Center rib strengthens the structure against shock
- 100 mm of margin useful for joining with Cross Fitting or using inside as reference point (only 76935)



### Use

- Photographic recording

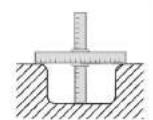
### Specifications

|          |  |
|----------|--|
| Material | Body: Aluminum<br>End of Rods: Polypropylene resin |
|----------|--|

## Cross Fitting

### Features

- Measure both vertically and horizontally by attaching to 60 mm width leveling rod



### Use

- Attach to make a cross leveling rod

### Specifications

|          |                             |
|----------|-----------------------------|
| Material | Body: Iron (chrome plating) |
|----------|-----------------------------|

## Aluminum Cross Leveling Rod 60mm Wide



76936

| Item Code | Description | Thickness (mm) | Weight (g) | JAN Code        | Packing Unit | Package |
|-----------|-------------|----------------|------------|-----------------|--------------|---------|
| 76936     | 1 x 1.1 m   | 25 (Metal)     | 900        | 4 960910 769366 | 5            |         |

### Features

- Includes two leveling rods and a cross metal fitting to measure both vertically and horizontally

### Use

- For on-site record photography

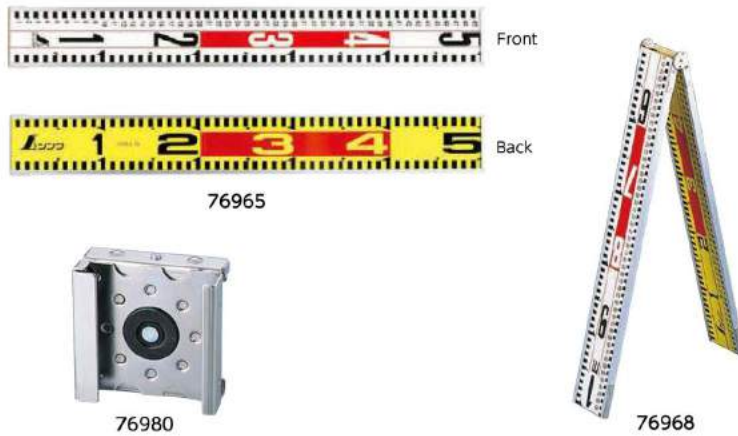
### Specifications

|          |   |
|----------|---|
| Material | Body: Aluminum<br>End of Rods: Polypropylene resin<br>Rods Fixture: Iron (chrome plating) |
|----------|---|

JIS JIS mark With red numbers cm/shaku (Upper side for Front metric / Lower side for Back shaku) With magnet Vial with luminous sheet Thermometer Double-sided tape Letters in Japanese With stopper Oil Glass lens With edge  
 Japanese zodiac signs With battery shaku/cm (Upper side for Front shaku / Lower side for Back metric) With non-slip pad Thermometer/Hygrometer Hygrometer With hanging tool Letters in English With direction arrow With grid scale Plastic lens

Carpenter's Squares  
 Stainless Steel Rules / Machine scale  
 Aluminum Rules  
 Resin Folding Rules / Bamboo rules  
 Squares / Protractors  
 Vernier Calipers / Micrometers  
 Tape Measures  
 Surveying Products  
 Scales  
 Levels  
 Lasers / Optical Equipment  
 Inklines / Chalklines / Plumbholders  
 Circular Saw Guides  
 Tools  
 Construction Tools  
 Industrial Tools  
 Thermometers / Hygrometers / Evaporimeter  
 Outdoor Products  
 Magnifying Glasses  
 Drawing Tools  
 Magnets

## Plywood Leveling Rod 63 mm Wide with Aluminum Frame



| Item Code | Description                  | Thickness (mm) | Weight (g) | JAN Code | Packing Unit | Package |
|-----------|------------------------------|----------------|------------|----------|--------------|---------|
| 76964     | 30 cm                        | 12             | 152        |          | 1            |         |
| 76965     | 50 cm                        | 12             | 253        |          | 1            |         |
| 76966     | 70 cm                        | 12             | 335        |          | 1            |         |
| 76967     | 1 m                          | 12             | 472        |          | 1            |         |
| 76968     | 1 m 2 Folded                 | 24             | 514        |          | 5            |         |
| 76980     | Cross Fitting for 63 mm Wide | 73x73x34       | 215        |          | 1            |         |

### Leveling Rod

**Features**

- Veneer board is resistant to bending motion
- Numbers are marked every 1 cm on the vertical display side

**Use**

- For on-site record photography

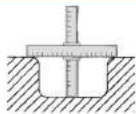
**Specifications**

|          |   |
|----------|---|
| Material | Body: Veneer board<br>Frame: Aluminum<br>Tip End: Iron (chrome plating)<br>Edge: Stainless (only folded type)<br>Moveable Parts: Iron (chrome plating) (only folded type) |
|----------|---|

### Cross Fitting

**Features**

- Enables measuring both vertically and horizontally together by attaching to 63 mm width leveling rod



**Use**

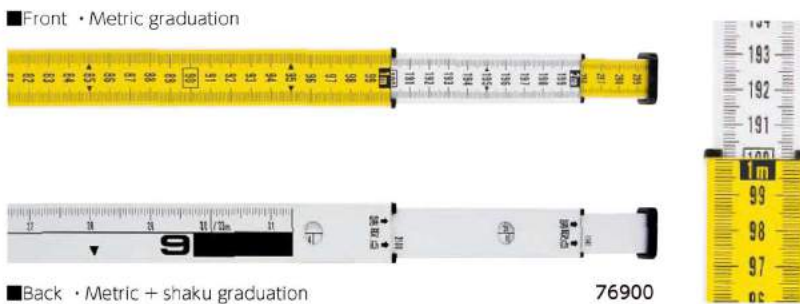
- Attach to make a cross leveling rod

**Specifications**

|          |                             |
|----------|-----------------------------|
| Material | Body: Iron (chrome plating) |
|----------|-----------------------------|

\*Not compatible for 1 m folded type

## Mini Telescopic Leveling Staff



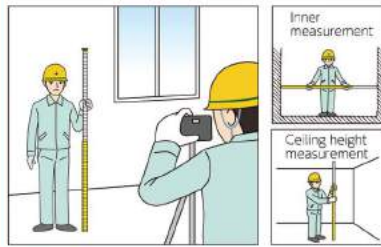
| Item Code | Description | Size in Stored (mm) | Weight (g) | JAN Code | Packing Unit | Package |
|-----------|-------------|---------------------|------------|----------|--------------|---------|
| 76863     | 2 m 2 Steps | 1,085×26×14         | 370        |          | 6            |         |
| 76900     | 3 m 3 Steps | 1,140×30×20         | 670        |          | 6            |         |

**Features**

- Convenient for measuring in rooms since graduations are measured in fine left and right 1 mm pitch
- Large end cap, graduations for inner measurement
- Drain holes for outdoor use

**Use**

- For horizontal, vertical, inner dimension and height measurements



**Specifications**

|                  |  |
|------------------|--|
| Material         | Body: Aluminum   |
| Length Tolerance | 2 m 2 steps: ±1.5 mm per 1 m<br>3 m 3 steps: ±2 mm per 1 m |



## Telescopic Leveling Staff II

■ Front Easy-to-read graduations every 10 mm  
Red graduations every 50 mm



■ Back 1 mm pitch graduations from the reference point

73266



73264



73265



73266



73267



73268

| Item Code | Description | Size in Stored (mm) | Weight (g) | JAN Code | Packing Unit | Packaging |
|-----------|-------------|---------------------|------------|----------|--------------|-----------|
| 73264     | 3 m 3 Steps | 1,188×50×27         | 1,100      |          | 2            |           |
| 73265     | 5 m 3 Steps | 1,893×50×27         | 1,700      |          | 2            |           |
| 73266     | 5 m 4 Steps | 1,489×50×27         | 1,650      |          | 2            |           |
| 73267     | 5 m 5 Steps | 1,244×50×27         | 1,600      |          | 2            |           |
| 73268     | 7 m 5 Steps | 1,645×50×27         | 2,100      |          | 2            |           |

### Features

- Front has easy-to-read graduation lines every 10 mm. There are also red graduation lines every 50 mm. Additionally, background color alternates every 1 m between white and yellow, so one can quickly identify the number of meters even from far away.
- Back side has 1 mm pitch graduations from the reference point to also enable use in measurements for landscaping construction, etc.
- In addition to the background color, the number of meters can also be determined by the number of ●



● ● ...2 m

● ● ● ...3 m

● ● ● ● ...4 m

● x 1 indicates 1 m

- Aluminum alloy, light weight, water-resistant
- One-touch detachable boards with the same button for each step make it easy to clean separately
- Convenient for measuring in areas with a large elevation difference such as hills or along the coast (73268)



### Use

- For leveling horizontally and vertically

### Specifications

|           |  |
|-----------|--|
| Material  | Body: Aluminum Joint: ABS resin                        |
| Length    | ±L mm  |
| Tolerance | L=m unit's measuring length (fractions are rounded up) |

## Telescopic Leveling Staff

■ Front Yellow color every 1 m Vertical numbers every 1 cm Center line



■ Back Red and white graduations every 50 cm

76930

| Item Code | Description | Size in Stored (mm) | Weight (g) | JAN Code | Packing Unit | Packaging |
|-----------|-------------|---------------------|------------|----------|--------------|-----------|
| 76973     | 5 m 3 Steps | 1,900×49×22         | 1,427      |          | 5            |           |
| 76930     | 5 m 4 Steps | 1,495×50×27         | 1,750      |          | 5            |           |

### Features

- Aluminum alloy, light weight, water-resistant
- One-touch detachable boards with the same button for each step make it easy to clean separately

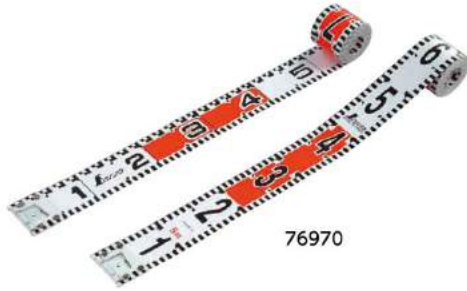
### Use

- For leveling horizontally and vertically

### Specifications

|           |                |
|-----------|----------------|
| Material  | Body: Aluminum |
| Length    | ±3 mm per 1 m  |
| Tolerance |                |

## Fiberglass Leveling Rod Tape



76970

| Item Code | Description | Thickness (mm) | Weight (g) | JAN Code | Packing Unit | Package |
|-----------|-------------|----------------|------------|----------|--------------|---------|
| 76969     | 3 m         | 0.7            | 234        |          | 1            |         |
| 76970     | 5 m         | 0.7            | 352        |          | 1            |         |
| 76971     | 10 m        | 0.7            | 643        |          | 1            |         |

### Features

- Large numbered graduations for photography
- Fade resistant
- Fiberglass tape with little elasticity

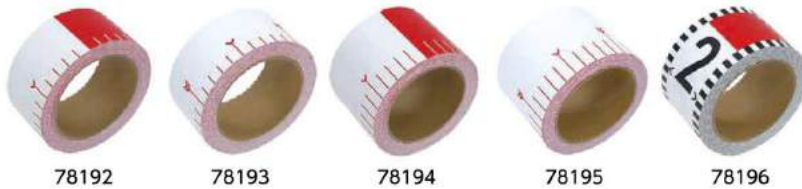
### Use

- For on-site record photography

### Specifications

|                  |   |
|------------------|---|
| Material         | Tape: Fiberglass<br>Metal Fitting: Iron                 |
| Length Tolerance | 3 m: 3 m±3.6 mm<br>5 m: 5 m±5.2 mm<br>10 m: 10 m±9.2 mm |

## Adhesive Leveling Rod Tape



[78192 - 78195]  
Thickness of graduation: 1 mm



▲ ... 5 cm mark  
▲ ... 10 cm mark

[78196]  
Thickness of graduation: 5 mm



| Item Code | Description                                      | Body Size (mm) | Weight (g) | JAN Code | Packing Unit | Package |
|-----------|--|----------------|------------|----------|--------------|---------|
| 78192     | 50 mm x 25 m 20 cm Color Interval                | φ107x50        | 210        |          | 5            |         |
| 78193     | 50 mm x 25 m 30 cm Color Interval                | φ107x50        | 210        |          | 5            |         |
| 78194     | 75 mm x 25 m 20 cm Color Interval                | φ107x75        | 310        |          | 5            |         |
| 78195     | 75 mm x 25 m 30 cm Color Interval                | φ107x75        | 310        |          | 5            |         |
| 78196     | 60 mm x 26 m 20 cm Color Interval with Numbering | φ107x60        | 250        |          | 5            |         |

### Features

- With antireflective fabrication so objects will show clearly when photographed
- Will not peel even in temperatures from -10 to 40°C so it can be used reliably in summer or winter
- Can be written with an oil-based marker so a custom rule can easily be made



- Synthetic paper that does not release toxic gases even when burned
- With tape cutter to cut necessary length

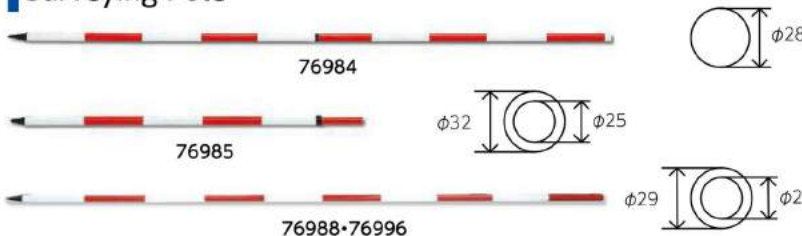
### Use

- For positioning in banking drainage, and foundation work, as well as for photography

### Specifications

|           | 78192                              | 78193 | 78194 | 78195 | 78196 |
|-----------|------------------------------------|-------|-------|-------|-------|
| Material  | Tape: Synthetic paper Cutter: Iron |       |       |       |       |
| Thickness | 0.15 mm                            |       |       |       |       |
| Length    | 25 m                               |       |       |       | 26 m  |

## Surveying Pole



| Item Code | Description            | Body Size (mm)                 | Weight (g) | JAN Code | Packing Unit | Package |
|-----------|------------------------|--------------------------------|------------|----------|--------------|---------|
| 76984     | Wood 2 m               | φ28x2,095                      | 1,000      |          | 20           |         |
| 76985     | Aluminum 2 m Steps     | φ32(25)x1,195 (During storage) | 415        |          | 30           |         |
| 76988     | Aluminum 2 m           | φ29x2,061                      | 468        |          | 10           |         |
| 76996     | Aluminum 2 m 10 pc-set | φ29x2,061                      | 468 x 10   |          | 1            |         |

### Features

- Aluminum 2 m 2 steps model locks at a position just by turning right or left
- Highly weatherproof so it can be used repeatedly under various environments (76988/76996)
- About 50% lighter compared to wooden construction (76988/76996)
- End has a hard, steel tip (76988/76996)
- 10-item value set (76996)

### Use

- For indicating position or direction while leveling

### Specifications

|          | 76984                       | 76985                           | 76988  | 76996 |
|----------|-----------------------------|---------------------------------|--|-------|
| Material | Body: Wood<br>Tip End: Iron | Body: Aluminum<br>Tip End: Iron | Body: Aluminum<br>Tip End: PP, Iron<br>Cap: PP |       |

JIS JIS mark With red numbers cm/shaku (Upper side for Front metric / Lower side for Back shaku) With magnet Vial with luminous sheet Thermometer Double-sided tape Letters in Japanese With stopper Oil Glass lens With edge  
 Japanese zodiac signs With battery shaku/cm (Upper side for Front shaku / Lower side for Back metric) With non-slip pad Thermometer/Hygrometer Hygrometer Measuring tool Letters in English With direction arrow With grid scale Plastic lens



### Surveying Pin Pole (Steel)



76927

| Item Code | Description    | Diameter (mm) | Weight (g) | JAN Code        | Packing Unit | Package |
|-----------|----------------|---------------|------------|-----------------|--------------|---------|
| 76927     | 30 cm $\phi$ 4 | $\phi$ 4      | 40         | 4 960910 769274 | 10           |         |
| 76928     | 60 cm $\phi$ 4 | $\phi$ 4      | 74         | 4 960910 769281 |              |         |
| 76976     | 30 cm $\phi$ 6 | $\phi$ 6      | 102        | 4 960910 769762 |              |         |
| 76977     | 50 cm $\phi$ 6 | $\phi$ 6      | 147        | 4 960910 769779 | 5            |         |
| 76978     | 60 cm $\phi$ 6 | $\phi$ 6      | 168        | 4 960910 769786 |              |         |
| 76979     | 1 m $\phi$ 8   | $\phi$ 8      | 456        | 4 960910 769793 |              |         |

#### Features

- Baked finish for fade-resistance

#### Use

- For indicating position or direction while leveling

#### Specifications

|          |      |
|----------|------|
| Material | Iron |
|----------|------|

### Traverse Surveying Pin Pole (Hard Steel)



76982

| Item Code | Description      | Diameter (mm) | Weight (g) | JAN Code        | Packing Unit | Package |
|-----------|------------------|---------------|------------|-----------------|--------------|---------|
| 76982     | 50 cm $\phi$ 3.2 | $\phi$ 3.2    | 40         | 4 960910 769823 | 30           |         |

#### Features

- Baked finish for fade-resistance
- Hard steel material helps to penetrate into hard ground

#### Use

- For indicating position or direction while leveling

#### Specifications

|          |      |
|----------|------|
| Material | Iron |
|----------|------|

### Measuring Wheel



75421

75422

Come with soft case

| Item Code | Description | Measuring Unit | Measurement Range | Weight (g) | JAN Code        | Packing Unit | Package |
|-----------|-------------|----------------|-------------------|------------|-----------------|--------------|---------|
| 75421     | E10-S       | 1 cm           | 1 km              | 820        | 4 960910 754218 | 1            |         |
| 75422     | E20-S       | 10 cm          | 10 km             | 1,260      | 4 960910 754225 |              |         |

#### Features

- Easy-to-read counter at hand level



- Easy-to-hold handle
- Triple extensions for compact packing

#### Use

- For construction, plumbing works, engineering works, measurement of properties, measurement of interior works, layout of golf course, landscaping, etc.

#### Specifications

|                | 75421  | 75422    |
|----------------|--|----------|
| Maximum Size   | 980 mm   | 1,030 mm |
| Minimum Size   | 570 mm   | 620 mm   |
| Wheel Diameter | 119 mm   | 212 mm   |
| Counter        | Five-digit number  |          |
| Accuracy       | $\pm 1$ cm per 100 cm  |          |
| Stand          | Without  | With     |
| Material       | Body: ABS resin, nylon resin, aluminum<br>Wheel: Rubber, polypropylene resin |          |

### Construction Flag



76955

| Item Code | Description                  | Stick Size (mm) | Flag Size (mm) | Weight (g)             | JAN Code        | Packing Unit | Package |
|-----------|------------------------------|-----------------|----------------|------------------------|-----------------|--------------|---------|
| 76955     | Fabric Pair of White and Red | $\phi$ 16.5x600 | 335x442        | 110                    | 4 960910 769557 | 10           |         |
| 76909     | Nylon Pair of White and Red  | $\phi$ 16.5x600 | 340x450        | red: 100<br>white: 115 | 4 960910 769090 |              |         |

#### Features

- Flags clearly visible from a distance

#### Use

- For controlling traffic at construction sites, etc.

#### Specifications

|          | 76955        | 76909       |
|----------|--------------|-------------|
| Material | Wood, fabric | Wood, nylon |