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This load cell is a center hole type that measure the axial force of rock bolt, earth anchor for material safety and causes search, and is also used for tie back and loading test etc.

Feature

- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment
- Compensation of eccentric load by assistant ring

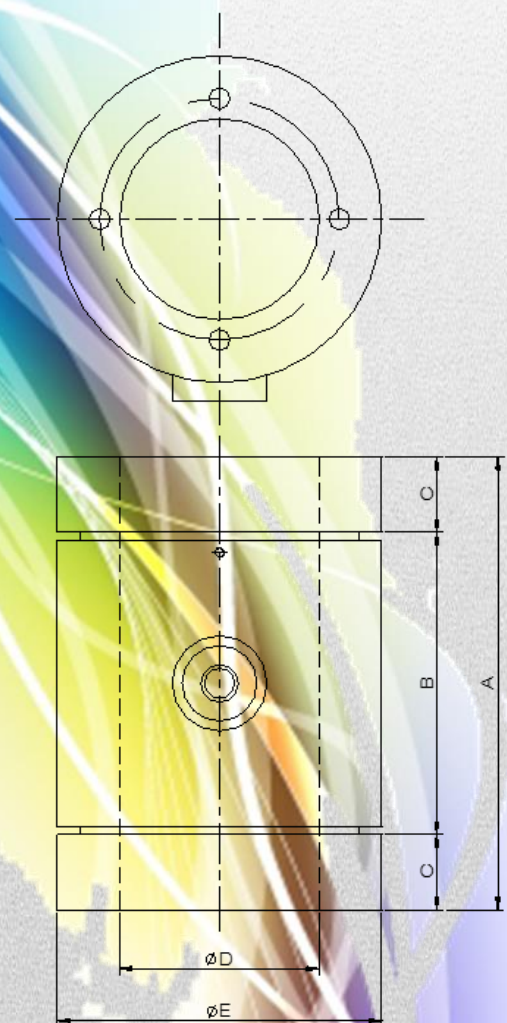


Specification

Type	ELC - □ □ □
Capacity	50tf ~ 500tf
Rated Output	Approx. 1~1.5mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-10 ~ 60°C
Over Load	1.5
Resistance	350Ω or 700 Ω
Safe Exciting Voltage	10V
Electrical Connection	4Core Shield

Dimension

Type	A	B	C	ØD	ØE
ELC-50	132	136	80	100	122
ELC-100	180	120	30	100	150
ELC-200	184	180	110	151	175
ELC-300	217	228	130	180	206
ELC-500	274	318	160	235	265



This SLC type load cell is used to measure axial force of strut for safety and causes search of its material and is designed for crew-jack of 50ton or 100ton.

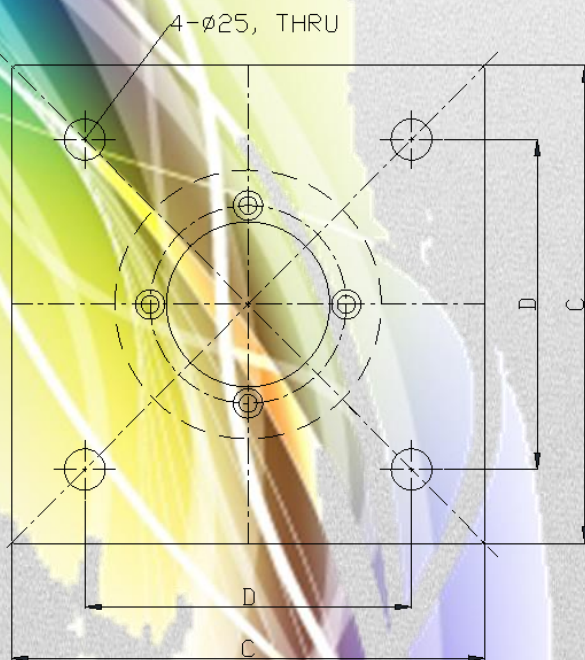
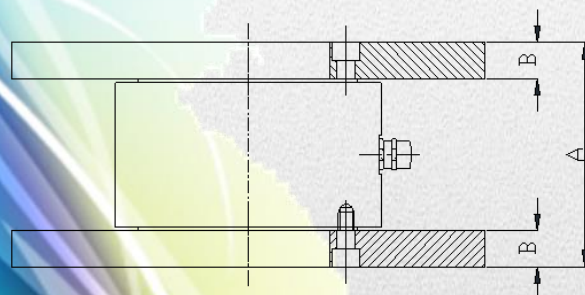
Feature

- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment



Specification

Type	SLC - □ □ □
Rated Capacity	100tf
Rated Output	Approx. 1mV/V ($2,000 \times 10^{-6}$)
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-10 ~ 60°C
Over Load	1.5
Resistance	350Ω or 700 Ω
Safe Exciting Voltage	10V
Electrical Connection	4Core Shield



Dimension

Type	A	B	C	D
SLC-100	136	22	290	200

This load cell is a hopper tank type and is used to measure load change of industrial work site or civil work site through various loading test for safety and causes search.

Feature

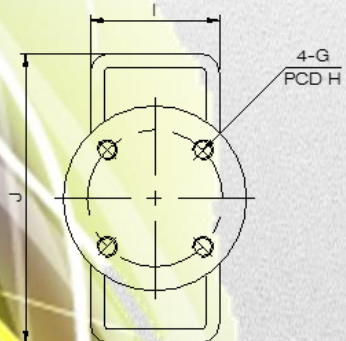
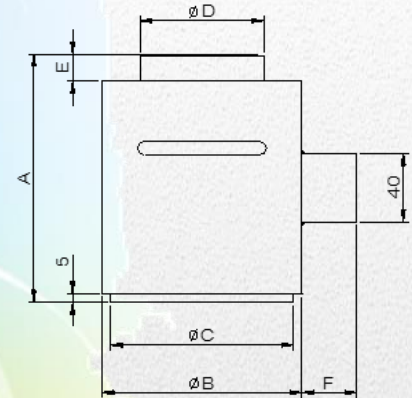
- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

Specification

Type	PLC - □ □ □
Capacity	10tf ~ 500tf
Rated Output	Approx.1~1.5mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-10 ~ 60°C
Over Load	1.5
Resistance	350Ω or 700 Ω
Safe Exciting Voltage	10V
Electrical Connection	4Core Shield

Dimension

Type	A	ØB	ØC	ØD	E	F	G	H	I	J
PLC-10	80	70	60	33	8	25	M8 DP10	40	-	-
PLC-20	100	70	60	33	8	25	M8 DP10	40	-	-
PLC-30	110	88	78	51	10	25	M8 DP10	60	-	-
PLC-50	110	88	78	51	10	25	M8 DP10	60	-	-
PLC-100	145	118	108	73	16	27	M12 DP15	810	76	174
PLC-200	165	148	138	103	16	27	M16 DP15	100	76	204
PLC-300	190	178	160	126	18	27	M16 DP18	120	80	238
PLC-500	250	211	195	162	22	27	M20 DP20	140	80	271



This TPLC type load cell is compression and tension type and used to measure the change of load at the industrial site.

Feature

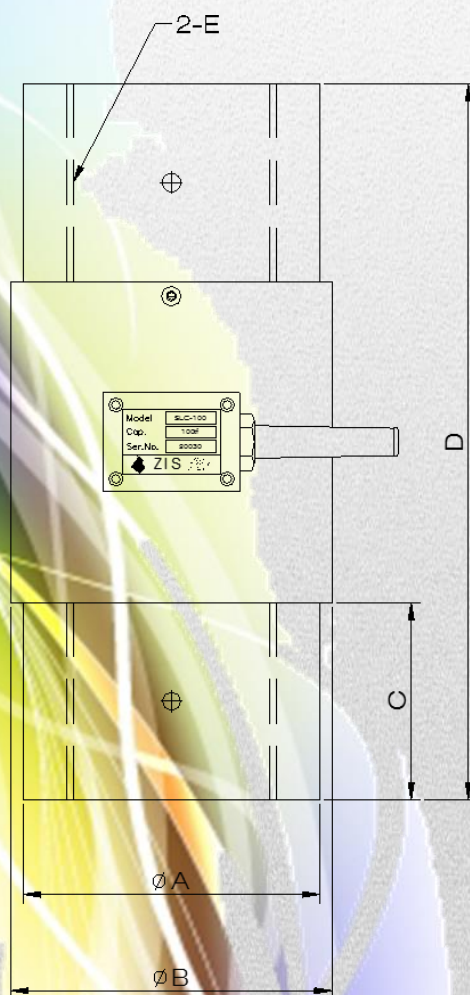
- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

Specification

Type	TPLC - □ □ □
Rated Capacity	30tf ~ 200tf
Rated Output	Approx. 1mV/V ($2,000 \times 10^{-6}$)
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-20 ~ 80°C
Over Load	1.5
Resistance	350Ω or 700Ω
Safe Exciting Voltage	10V
Electrical Connection	Ø9mm, 0.5mm ² , 4Core Shield

Dimension

Type	ØA	ØB	C	D	E
TPLC-30	85	95	50	250	M 60×3 DP60
TPLC-50	110	120	60	320	M 80×3 DP80
TPLC-100	150	160	90	420	M100×3 DP100
TPLC-200	220	230	180	600	M150×4 DP150



This CTLC-12 type load cell is designed for special measurement for tension of bridge wire and mono-jack test etc. This load cell is used for stability and finding cause.

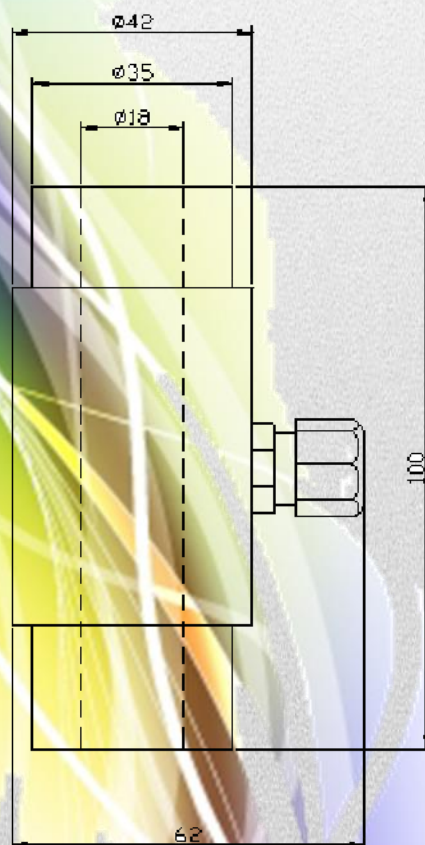
Feature

- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment



Specification

Type	CTLC-12
Rated Capacity	12tf
Rated Output	Approx. 1 - 1.5mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-10 ~ 60℃
Over Load	1.5
Resistance	350Ω or 700Ω
Safe Exciting Voltage	10V
Electrical Connection	4Core Shield



Dimension

Type	ØA	ØB	ØC	D
SELC-12	18	35	42	100

This SFLC type loadcell is designed for special measurement of concrete specimen test etc.

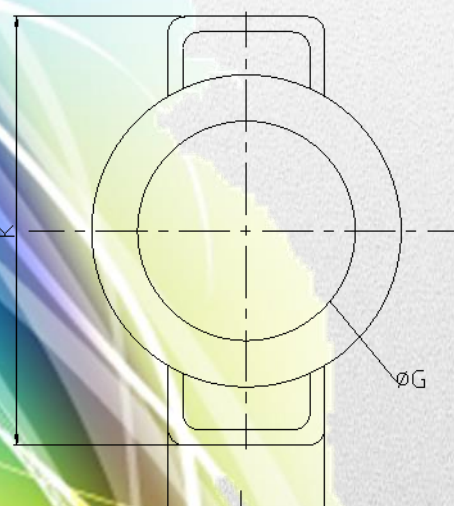
Feature

- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy connection with automatic measuring equipment



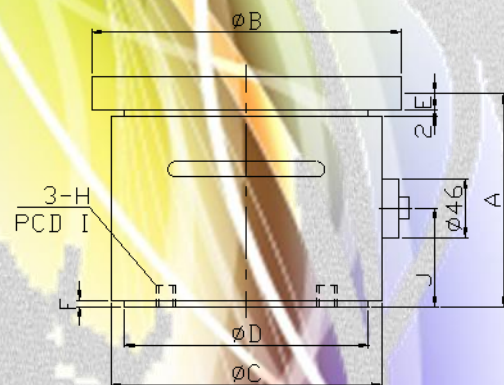
Specification

Type	SFLC - □ □ □
Rated Capacity	100tf
Rated Output	Approx. 1.5mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-10 ~ 60℃
Over Load	1.5
Resistance	350Ω or 700Ω
Safe Exciting Voltage	10V
Electrical Connection	4Core Shield



Dimension

Type	A	ØB	ØC	ØD	E
SFLC-100	155	220	190	180	25
Type	F	ØG	H		
SFLC-100	2	153	M12 D.P15		
Type	I	J	K	L	
SFLC-100	124	65	280	120	



This TSLC type load cell is tension type and used to measure the change of load at the industrial site.

Feature

- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

Specification

Type	TSLC - □ □ □
Rated Capacity	5tf ~ 200tf
Rated Output	Approx. 1mV/V ($2,000 \times 10^{-6}$)
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-20 ~ 80°C
Over Load	1.5
Resistance	350Ω or 700Ω
Safe Exciting Voltage	10V
Electrical Connection	4Core Shield

Dimension

Type	A	B	C	ØD	E	ØF	ØG
TSLC-5	234	80	77	60	40	70	37
TSLC-25	390	120	135	110	72	125	60
TSLC-100	690	210	240	195	130	210	102
TSLC-200	890	230	330	290	130	170	140



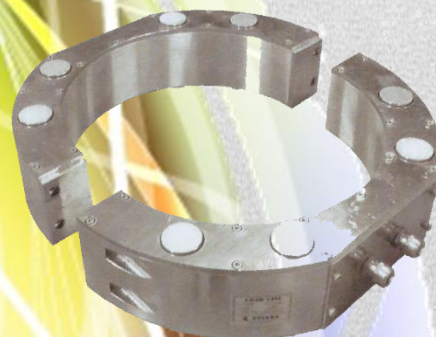
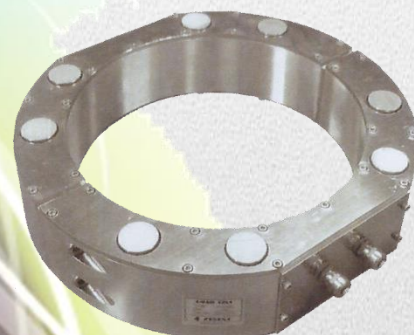
This SELC-12 type load cell is designed specially for special measurement for tension of bridge wire and, is used for stability and finding cause.

Feature

- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

Specification

Type	HLC - □ □ □
Rated Capacity	10 ~ 16tf
Rated Output	Approx. 1 - 2mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-10 ~ 60℃
Over Load	1
Resistance	350Ω or 700Ω
Safe Exciting Voltage	10V
Electrical Connection	4Core Shield



This FLC type load cell is designed for special measurement for axial force of rock bolt, earth anchor and bolt etc.

Feature

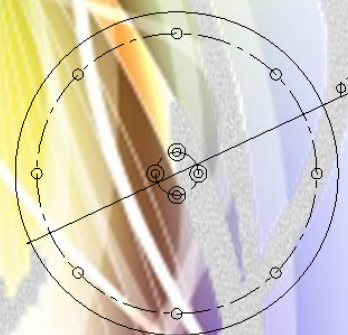
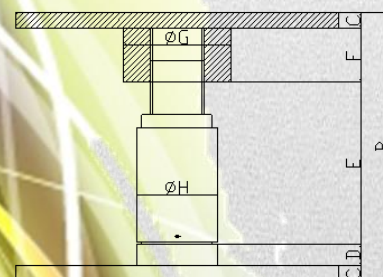
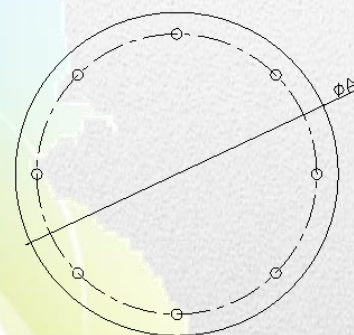
- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

Specification

Type	FLC-10
Rated Capacity	10tf
Rated Output	Approx. 1 - 1.5mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-10 ~ 60℃
Over Load	1.5
Resistance	350Ω or 700Ω
Safe Exciting Voltage	10V
Electrical Connection	4Core Shield

Dimension

Type	ØA	ØB	ØC	D	E	F
FLC	300	250	15	20	150	50
Type	ØG	ØH	ØI			
FLC	100	75	300			



This meter measure reaction force of cassion, suction pile or concrete foundation agasint ground to use prediction construction, design and stability.

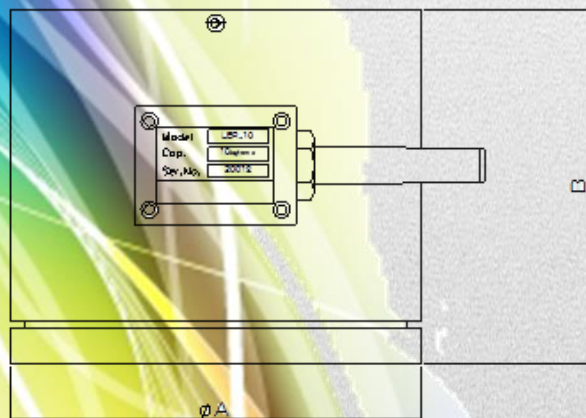
Feature

- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment



Specification

Type	SRF-□
Rated Capacity	1 ~ 30kgf/cm ²
Rated Output	Approx.1.5~2mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-20 ~ 70°C
Over Load	120%
Resistance	350Ω or 700Ω
Safe Exciting Voltage	10V
Electrical Connection	4Core Shield



This meter is installed at marine structure as like breakwater for measurement of wave pressure.

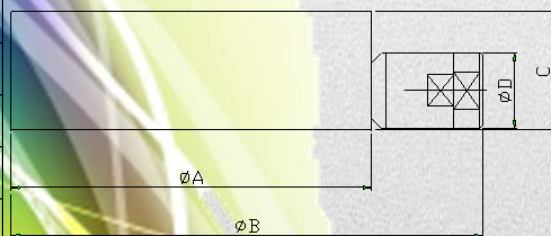
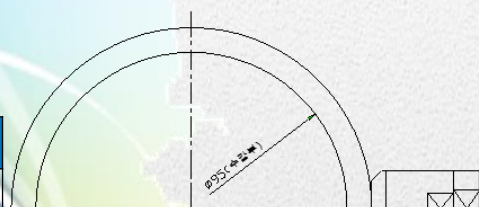
Feature

- Abrasion of sensor surface is no effect to output.
- Load cell type for no effect by flexural strength
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment



Specification

Type	FWP- □ □
Rated Capacity	2 ~ 10kgf/cm ²
Rated Output	Approx. 0.6~1mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-20 ~ 60°C
Over Load	1.5
Resistance	350Ω or 700Ω
Safe Exciting Voltage	10V
Electrical Connection	4Core Shield



Dimension

Type	ØA	ØB	C	ØD
FWP-XX	110	114	36	23

This meter is used to measure soil pressure of the around ground load for check of ground stability.

Feature

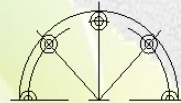
- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment



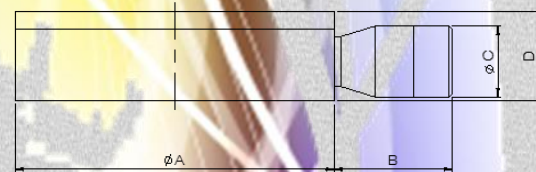
Specification

Type	FSP- □ □
Rated Capacity	2 ~ 20kgf/cm ²
Rated Output	Approx. 0.6~1mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-20 ~ 60°C
Over Load	1.5
Resistance	350Ω or 700Ω
Safe Exciting Voltage	10V
Electrical Connection	4Core Shield

∅ A Size : ∅ 50



∅ A Size : ∅ 100 / ∅ 200



Dimension

Type	∅ A	B	∅ C	D
FSP-2 / 5 / 10 / 20	50	13	4	8.8
FSP-2 / 5 / 10 / 20	100	37	20	25
FSP-2 / 5 / 10 / 20	200	37	20	25

This meter is used to measure soil pressure of the around ground load for check of ground stability.

Feature

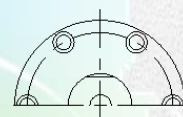
- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

Specification

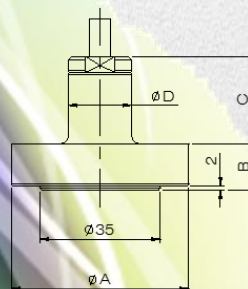
Type	BSP- □ □
Rated Capacity	2 ~ 20kgf/cm ²
Rated Output	Approx. 0.6~1mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-20 ~ 60°C
Over Load	1.5
Resistance	350Ω or 700Ω
Safe Exciting Voltage	10V
Electrical Connection	4Core Shield

Dimension

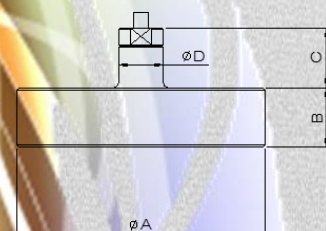
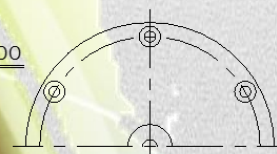
Type	ØA	B	C	ØD
BSP-2 / 5 / 10 / 20	50	12	24	18
BSP-2 / 5 / 10 / 20	100	20	40	30
BSP-2 / 5 / 10 / 20	200	25	40	30



ØA Size : Ø50



ØA Size : Ø100 / Ø200



This meter is used to measure soil pressure by the around ground load for check of ground stability.

Feature

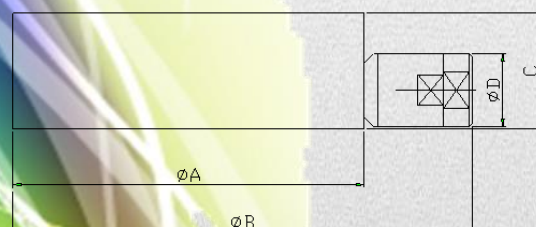
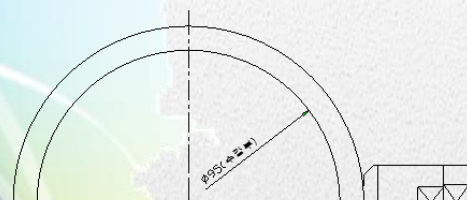
- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

Specification

Type	LSP- □ □
Rated Capacity	2 ~ 20kgf/cm ²
Rated Output	Approx. 0.6~1mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-20 ~ 60°C
Over Load	1.5
Resistance	350Ω or 700Ω
Safe Exciting Voltage	10V
Electrical Connection	4Core Shield

Dimension

Type	ØA	ØB	C	ØD
LSP-XX	110	144	36	23



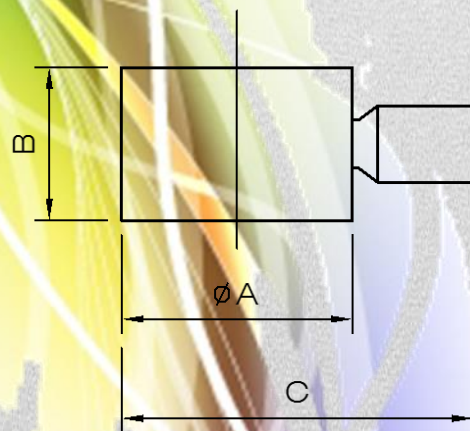
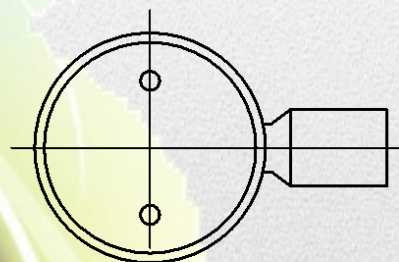
This meter is a simulated testing transducer to be used for liquefaction test, centrifuge loading test and hydraulic experiment.

Feature

- Proper for simulation test by micromini and ultralight
- High precision and stability
- Waterproof and dustproof
- Easy connection with automatic measuring equipment

Specification

Type	MSP- □ □
Rated Capacity	2 ~ 20kgf/cm ²
Rated Output	Approx. 0.2~1mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-10 ~ 60°C
Over Load	1.5
Resistance	350Ω
Safe Exciting Voltage	5V
Electrical Connection	4Core Shield



Dimension

Type	ØA	B	C
MSP-2	12	8	18.5
MSP-5	12	8	18.5
MSP-10	12	8	18.5
MSP-20	12	8	18.5

Measure safety of the ground due to change of pore pressure
by excavation.

Feature

- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

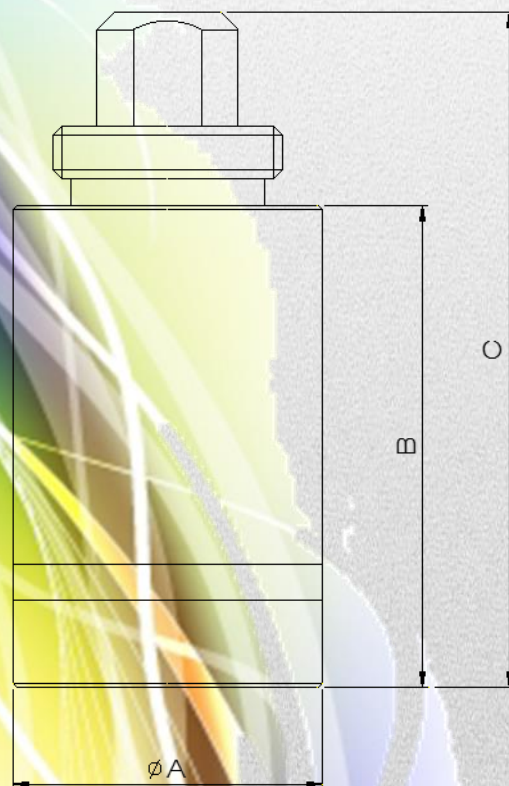


Specification

Type	SPP - □ □
Capacity	2 ~ 20 kgf/cm ²
Rated Output	Approx. 0.6~1mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Temperature Range Allowable	0 ~ 60°C
Over Load	1.5
Resistance	350Ω or 700 Ω
Allowable Exc. Voltage	10V
Electrical Connection	4Core Shield

Dimension

Type	ØA	B	C
SPP-2	35	55	77
SPP-5	35	55	77
SPP-10	35	55	77
SPP-20	35	55	77



This meter used to check the change of pore pressure in the ground for the ground safety according to excavation.

Feature

- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment



Specification

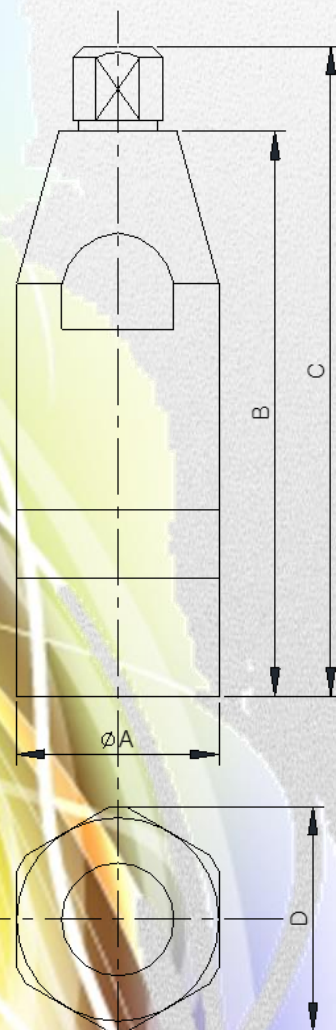
Type	LPP-□□V / LPP-□□A
Rated Capacity	0.1 - 2 kgf/cm ²
Rated Output	0.1~2 kgf/cm ²
Accuracy	±0.3%FS
Thermal Effect On Zero	±0.05%FS/°C
Thermal Effect On Span	±0.05%FS/°C
Compensation Temperature Range	0 ~ 70°C
Safe Temperature Range	-20 ~ 80°C
Safe Exciting Voltage	12~24VDC
Output	1~5VDC, 4~20mA
Electrical Connection	4Core Shield

* LPP-□□V : 1-5 VDC

* LPP-□□A : 4-20 mA

Dimension

Type	ØA	B	C	D
LPP-□	36	100	113	40



MPP type pore pressure meter is a simulated testing transducer to be used for liquefaction test, centrifuge loading test and hydraulic experiment.

Feature

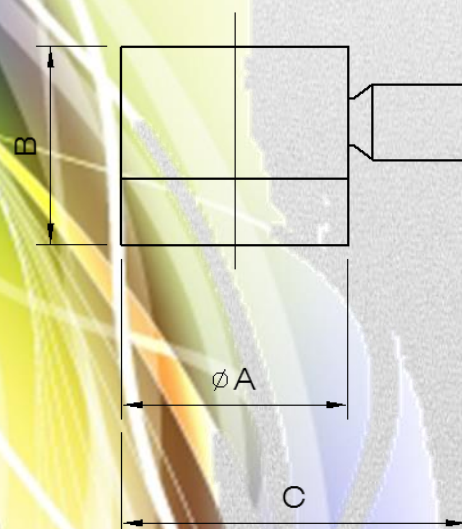
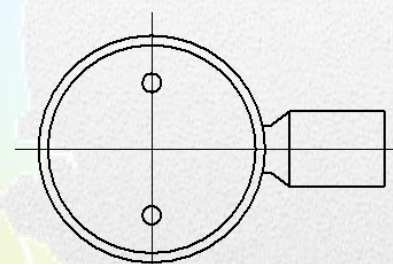
- Proper for simulation test by micromini and ultralight
- High precision and stability
- Waterproof and dustproof
- Easy connection with automatic measuring equipment

Specification

Type	MPP-□ □
Rated Capacity	2 ~ 20kgf/cm ²
Rated Output	Approx. 0.2~1mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Temperature Range Allowable	0 ~ 60°C
Over Load	1.2
Resistance	350Ω
Allowable Exc. Voltage	5V
Electrical Connection	4Core Shield

Dimension

Type	ØA	B	C
MPP-2	12	11	18.5
MPP-5	12	11	18.5
MPP-10	12	11	18.5
MPP-20	12	11	18.5



This meter is a water pressure type water level meter to measure not only water level of dam and river but change of ground water level in landside area. This meter can measure more precision because this meter does not need compensation of effect of atmospheric pressure change.

Feature

- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

Specification

Type	PWL- □ □
Rated Capacity	0.1~35 kgf/cm ²
Accuracy	±0.15%RO
Thermal Effect On Zero	±0.03%RO/°C
Thermal Effect On Span	±0.03%RO/°C
Compensation Temperature Range	0 ~ 70°C
Safe Temperature Range	-20 ~ 80°C
Safe Exciting Voltage	11 ~ 24VDC
Output	1~5VDC, 4~20mA(2Wire)
Electrical Connection	Ø7 Vented Tube Polyurethane Cable

* PWL-XX V : 1~5VDC

* PWL-XX A : 4~20mA

Calculation

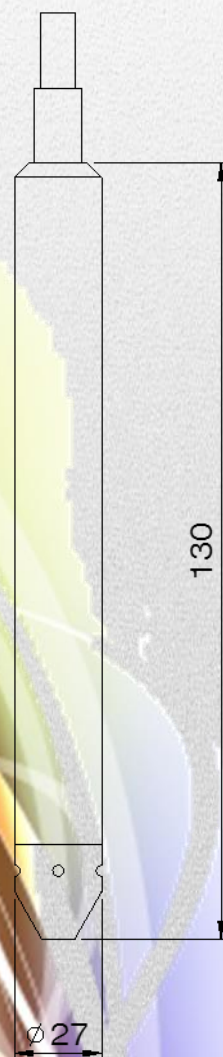
Actual water level = Cable length – Indicated level on indicator

ex) Cable length : 50m

Indicated level on indicator : 12.25m

50m - 12.25m = 37.75m (Actual water level)

* In case to mark meter on indicator.



This meter is a water pressure type water level meter to measure not only water level of dam or river but change of ground water level in landside area.

Feature

- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment



Specification

Type	CWL- □
Rated Capacity	2~5 kgf/cm ²
Rated Output	Approx. 0.6 ~ 1mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Temperature Range Allowable	0 ~ 60°C
Over Load	1.2
Resistance	350Ω
Allowable Exc. Voltage	5V
Electrical Connection	4Core Shield

Dimension

Type	ØA	B
CWL-2	40	100
CWL-3	40	100
CWL-5	40	100



This meter is applicable to static and dynamic test due to compact type displacement transducer, and can measure high accuracy data by high output and special stability.

Feature

- High precision and stability
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment



Specification

Type	JDP- □ □ □
Rated Capacity (mm)	50, 100
Rated Output	Approx. 5mV/V
Non-linearity	0.5% RO
Safe Temperature Range	-10 ~ 80°C
Resistance	350Ω
Recommended Excitation Voltage	Less than 2V
Safe Excitation Voltage	5V
Electrical Connection	4Core Shield

Dimension

Type	A	ØB	C	D	E
JDP-5	M2.5	6	55	175	34
JDP-100	M2.5	6	110	275	34



Poisson Ratio Tester

This is a tester to measure horizontal extension and axial strain by putting compressive load to cylindrical concrete specimen for calculation of Poisson ratio and elastic modulus.



Specification

MODEL	JPT
Type	Digital
Sample Type	Ø15×30
Support Points	200 mm
Material	Aluminum Alloy
Fitting Bar	1 set
Accessories	Box
Dimension	400×400×350

Compressor Meter Tester

This is a tester to measure horizontal extension by putting compressive load to cylindrical concrete specimen for calculation of Poisson ratio.



Specification

MODEL	JET
Sample Type	Ø15×30
Material	Aluminum Alloy
Fitting Bar	1 set
Accessories	Box
Dimension	300×300×300
Weight (kg)	5

Extensometer Tester

This is a tester to measure axial strain by putting compressive load to cylindrical concrete specimen for calculation of elastic modulus of the concrete.



Specification

MODEL	JCT
Sample Type	Ø15×30
Support Points	200 mm
Material	Aluminum Alloy
Fitting Bar	1 set
Accessories	Box
Dimension	300×300×350

This extensometer is used to measure displacement of length of structure or incline.

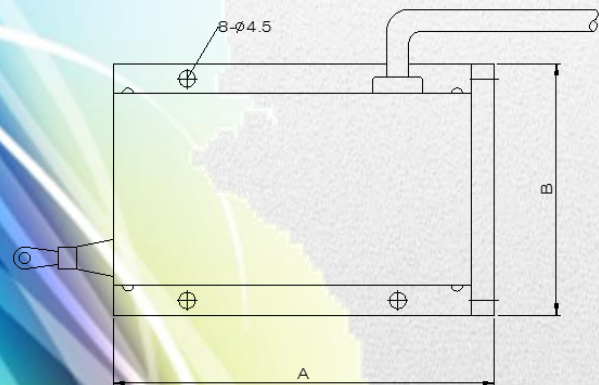
Feature

- High precision and stability
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment



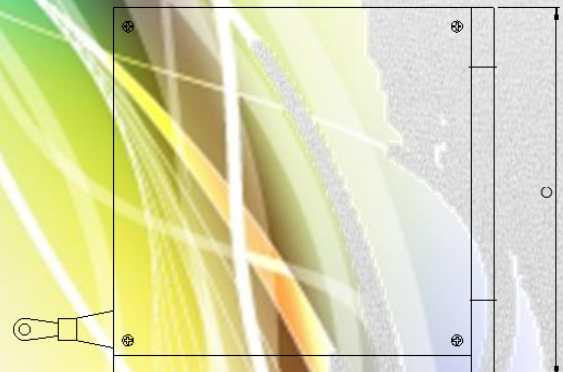
Specification

Type	PDP-□ □ □		
Rated Capacity	500mm	1,000mm	2,000mm
Rated Output	Approx. 5mV/V		
Non-linearity	1% RO		
Safe Temperature Range	-10 ~ 80°C		
Resistance	350Ω		
Recommended Excitation Voltage	Less than 2V		
Safe Exciting Voltage	5V		
Electrical Connection	4Core Shield		



Dimension

Type	A	B	C
PDP-500	88	68	76
PDP-1000	88	68	76
PDP-2000	103	68	100



This extensometer is used to measure rounding displacement by angle and length displacement in the tunnel.

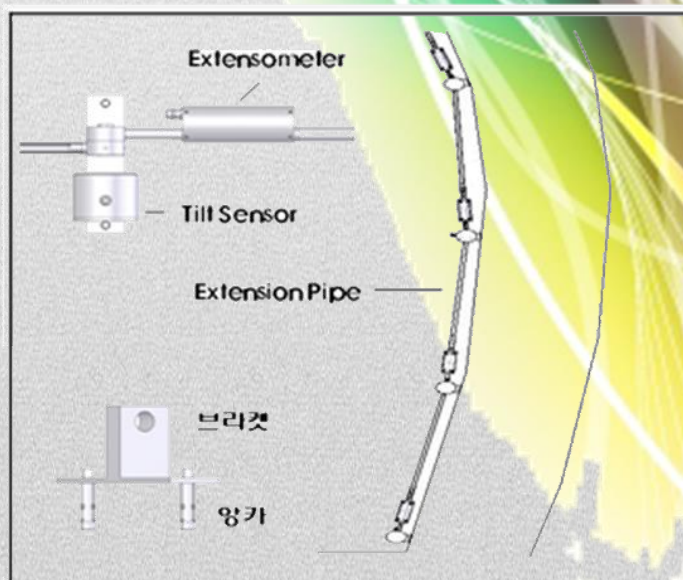
Feature

- Waterproof and dustproof
- High precision and stability
- Long measurement by strong durability and safety
- Easy connection with automatic measuring equipment



Specification

Type	Tiltmeter	Extensometer
Rated Capacity	± 5 deg	20mm
Resolution	± 0.0033 deg	0.01mm
Accuracy	0.1% RO	
Safe Temperature Range	$-20 \sim 80^{\circ}\text{C}$	
Material	Stainless steel or Aluminum	
Safe Exciting Voltage	5V	
Electrical Connection	6 Core Shield	



This extensometer is used to measure rounding displacement by angle displacement in the tunnel.

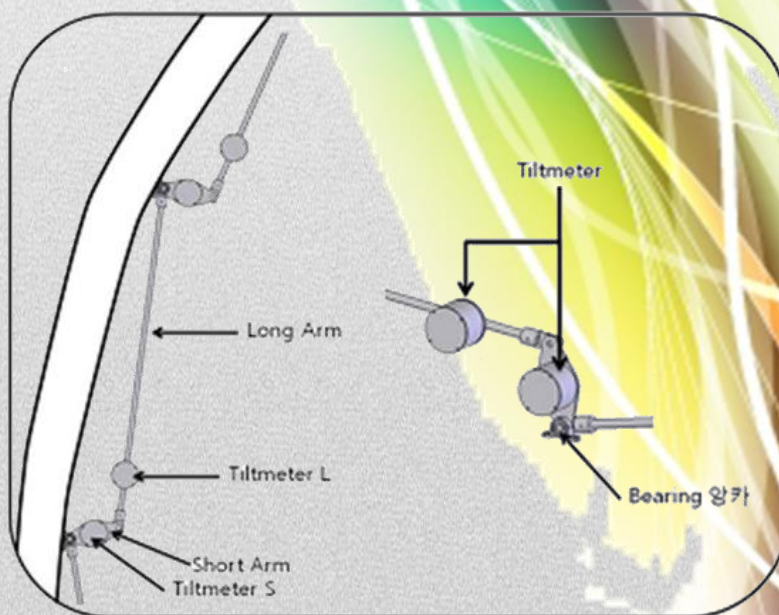
Feature

- Waterproof and dustproof
- High precision and stability
- Long measurement by strong durability and safety
- Easy connection with automatic measuring equipment



Specification

Type	Tiltmeter L	Tiltmeter S
Rated Capacity	±5 deg	±5 deg
Resolution	±0.0033 deg	±0.0033 deg
Accuracy	0.1% RO	
Safe Temperature Range	-20 ~ 80°C	
Material	Stainless steel or Aluminum	
Safe Exciting Voltage	5V	
Electrical Connection	6 core Shield	



This meter is laying and water pressure anchor type and measure settlement at the measuring point.

Feature

- High precision and stability
- Sure installation by water pressure anchor at the measuring point.
- Waterproof and dustproof
- Easy connection with automatic measuring equipment

Specification

Type	EMS-□
Range	0.5 ~ 5m
Conversion Method	Potentiometer
Settlement type	Water pressure anchor
Non-linearity	1% RO
Safe Temperature Range	-20 ~ 60 °C
Resistance	350 Ω
Safe Exciting Voltage	Less than 5V
Isolation resistance	More than 50 MΩ

This meter is installed by water pressure anchor in the borehole, and installation surface is wide and strong, so this meter is fixed strongly at the installation point and cannot occur to move point of anchor.



This Meter is used measure movements of the around ground for check relaxed zone.

Feature

- High precision and stability
- Long measurement by strong durability and safety
- Easy connection with automatic measuring equipment

Specification

Type	AEM-□ L-O
Point	1~6
Rated Capacity	100~1,000mm
Rated Output	Approx. 2~5 mV/V
Non-linearity	1% RO
Safe Temperature Range	0 ~ 60 °C
Resistance	350 Ω
Excitation Recommended	Less than 2V
Safe Exciting Voltage	5V
Electrical Connection	Point 1~3 : Ø12mm, 12Core Shield Point 4~6 : Ø17mm, 24Core Shield

■ □ of MODEL is measuring length. (Customer request size)

■ ○ of MODEL is number of points. (Customer request size)

● Installation

1. Bore deeper 1~2m than measurement depth.
2. Put sensor in boring hole and press water pressure anchor by water pressure pump.
3. Fix flange by anchor bolt.
4. Measure the initial value by indicator.

● Measurement

5. After Measurement by depth Gauge, substitute measured value for the following formula.

6. Physical volume=(Measured value-Initial value)×f

Initial vlaue : Refer each sensor test report sheet.

f(Compensation coefficient) : Refer each sensor test report sheet.

Ex) Initial Value : 50μ

Measured value : 2500μ

≫ (2500-50)×0.0130=31.85mm



Hydraulic anchor



PROTECTION COVER



CHECK VALVE

HYDRAULIC ANCHOR

PRESSURE TUBE

MEASURING WIRE

This Meter is used to measure movements of the around ground
for check relaxed zone.

Feature

- Long measurement by strong durability and safety
- Precious measurement by water pressure anchor type.

Specification

Type	WEM-□ L-O
Rated Capacity	Customer optional
Point	Customer optional
Anchor Size	Ø60 X 100mm
Hydraulic Pressure of Anchor Expansion	30 kgf/cm ²

- □ of model is measuring length. (Customer request size)
- o of mdl is number of points. (Customer request size)

• Installation

1. Bore deeper 1~2m than measurement depth.
2. Put sensor in boring hole and press water pressure anchor by water pressure pump.
3. Fix flange by anchor bolt.
4. Measure the initial value by depth gauge.

• Measurement

5. After Measurement by depth Gauge, substitute measured value for the following formula.

6. Physical volume=(Measured value-Initial value)´f

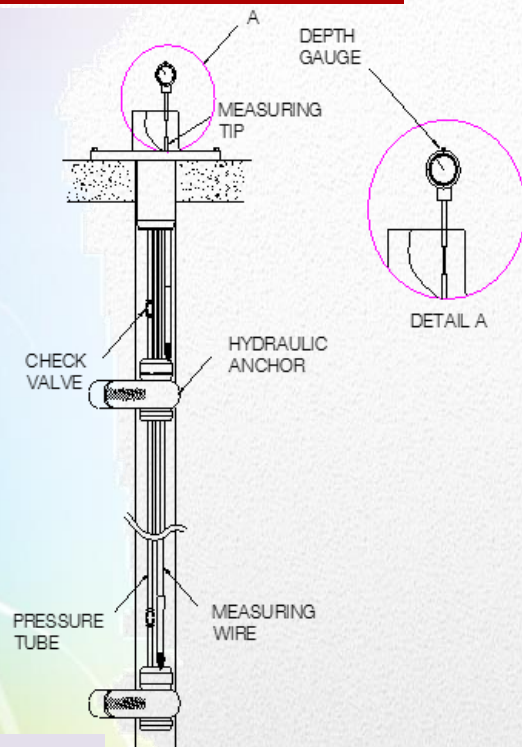
Initial Value : First measure value after installation

Measured Value : Measuring value after initial value

Ex) Initial value : 2.22mm

Measured Value : 2.12

≫ 2.22-2.12=0.10mm



This meter is used to measure deflection of structure as like bridge or sinking of embankment.

Feature

- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

Specification

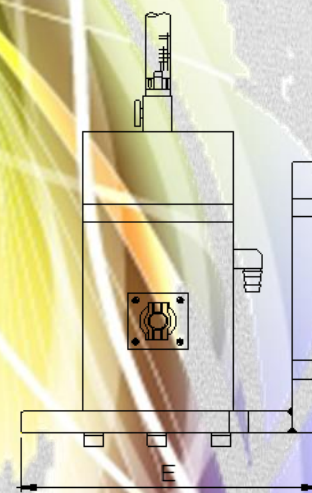
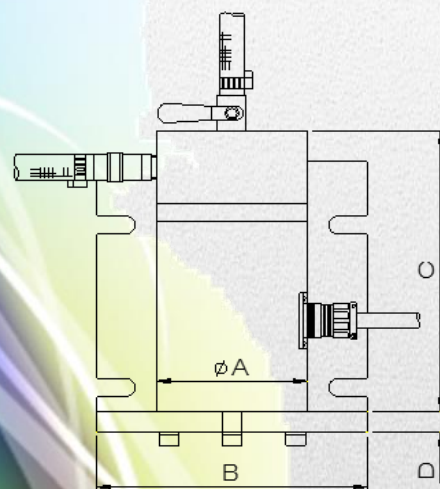
Type	SDT-5V /A	SDT-10 V/A	SDT-20 V/A
Rated Capacity	500mm	1,000mm	2,000mm
Accuracy	$\pm 0.15\%FS(RSS)$		
Thermal Effect On Zero	$\pm 0.03\%FS/^{\circ}C$		
Thermal Effect On Span	$\pm 0.03\%FS/^{\circ}C$		
Compensated Temperature Range	0 ~ 70 $^{\circ}C$		
Safe Temperature Range	-20 ~ 80 $^{\circ}C$		
Safe Exciting Voltage	12 ~ 24VDC		
Output	4~20mA, 1~5VDC		
Electrical Connection	4Core Shield		

*I SDT-X V : 1~5VDC

*I SDT-X A : 4~20mA

Dimension

Type	ØA	B	C	D	E
SDT-5	78	140	155	12	152
SDT-10	78	140	155	12	152
SDT-20	78	140	155	12	152



This meter is used to measure deflection of structure as like bridge or sinking of embankment.

Feature

- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

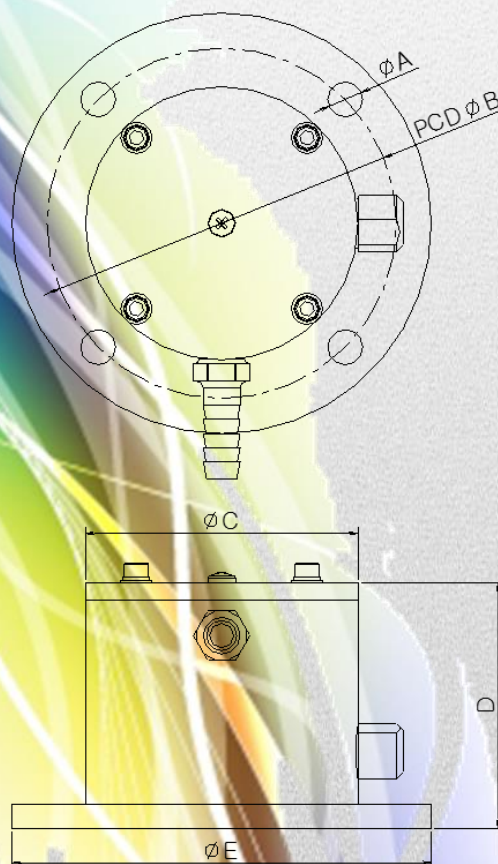


Specification

Type	RDT-5V /A	RDT-10 V/A	RDT-20 V/A
Rated Capacity	500mm	1,000mm	2,000mm
Accuracy	$\pm 0.15\%FS(RSS)$		
Thermal Effect On Zero	$\pm 0.03\%FS/^{\circ}C$		
Thermal Effect On Span	$\pm 0.03\%FS/^{\circ}C$		
Compensated Temperature Range	0 ~ 70 $^{\circ}C$		
Safe Temperature Range	-20 ~ 80 $^{\circ}C$		
Safe Exciting Voltage	12 ~ 24VDC		
Output	4~20mA, 1~5VDC,		
Electrical Connection	4Core Shield		

Dimension

Type	ØA	ØB	ØC	D	ØE
RDT	10	100	78	70	120



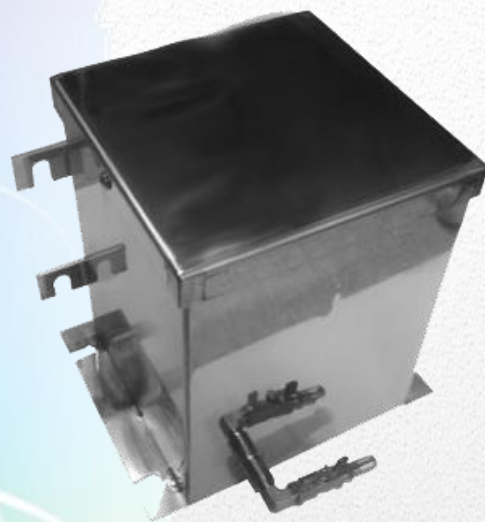
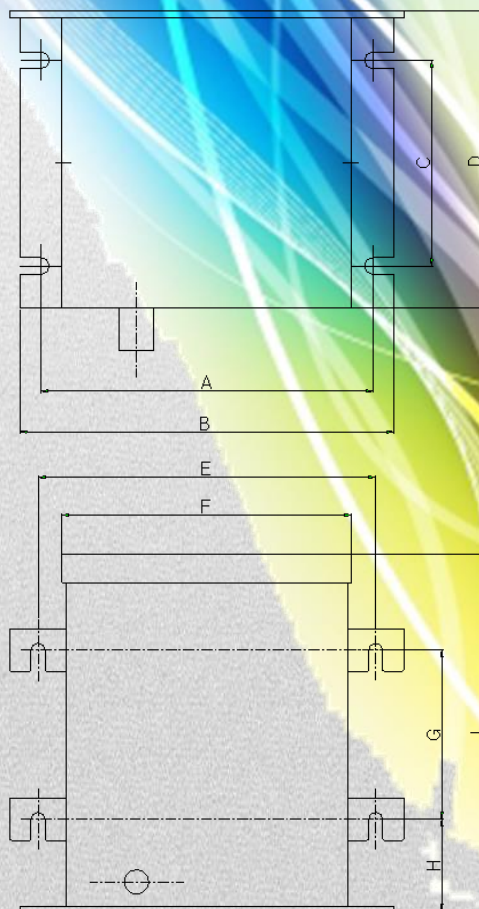
This tank is used to measure deflection of structure as like bridge or sinking of embankment.

Feature

- Long measurement by strong durability
- Easy installation by small size

Dimension

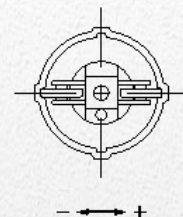
Type	ØA	B	C	D	E
WT	223	266	146	211	240
	F	G	H	I	
	206	120	65	253	



This inclinometer is used for automatic measurement of displacement of the ground or structures, which is connected by several inclinometers in inclinometer protection casing.

Feature

- Single axial
- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment



Specification

Type	SMI-5	SMI-10
Rated Capacity	±5 deg	±10 deg
Rated Output	Approx. 1mV/V ($2,000 \times 10^{-6}$)	
Non-linearity	1.0% RO	
Hysteresis	1.0% RO	
Safe Temperature Range	-20 ~ 80°C	
Over Load	150%	
Resistance	350Ω	
Safe Exciting Voltage	5V	
Electrical Connection	4Core Shield	

Dimension

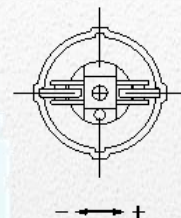
Type	A	ØB	C
SMI-5	220	34	485
SMI-10	220	34	485



This inclinometer is used for automatic measurement of displacement of the ground or structures, which is connected by several inclinometers in inclinometer protection casing.

Feature

- Dual axial
- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment



Specification

Type	DMI-5	DMI-10
Rated Capacity	±5 deg	±10 deg
Rated Output	Approx. 1mV/V ($2,000 \times 10^{-6}$)	
Non-linearity	1.0% RO	
Hysteresis	1.0% RO	
Safe Temperature Range	-20 ~ 80°C	
Over Load	150%	
Resistance	350Ω	
Safe Exciting Voltage	5V	
Electrical Connection	4Core Shield	

Dimension

Type	A	ØB	C
SMI-5	220	34	485
SMI-10	220	34	485



This tiltmeter is installed at structures, retaining and bridge to measure inclination.

Feature

- Single axial
- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

Specification

Type	STM-5	STM-10
Capacity	±5 deg	±10 deg
Rated Output	Approx. 1mV/V ($2,000 \times 10^{-6}$)	
Non-linearity	1% RO	
Hysteresis	1% RO	
Temperature Range Allowable	-20 ~ 60°C	
Over Load	150%	
Resistance	350Ω	
Allowable Exc. Voltage	5V	
Electrical Connection	4Core Shield	

Dimension

Type	A	ØB	C	D	E
STM-5	220	34	133	75	71
STM-10	220	34	133	75	71



This tiltmeter is installed at structures, retaining and bridge to measure inclination.

Feature

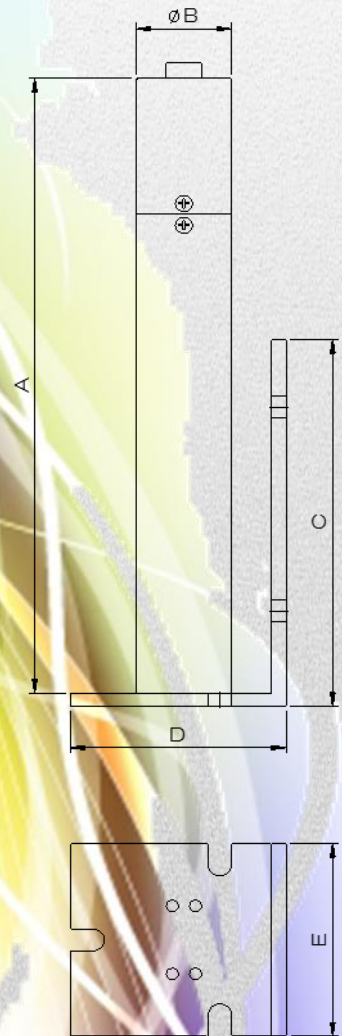
- Dual axial
- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

Specification

Type	DTM-5	DTM-10
Capacity	±5 deg	±10 deg
Rated Output	Approx. 1mV/V ($2,000 \times 10^{-6}$)	
Non-linearity	1% RO	
Hysteresis	1% RO	
Temperature Range Allowable	-20 ~ 60°C	
Over Load	120%	
Resistance	350Ω	
Allowable Exc. Voltage	5V	
Electrical Connection	8Core Shield	

Dimension

Type	A	ØB	C	D	E
STM-5	220	34	133	75	71
STM-10	220	34	133	75	71



This tiltmeter is installed at foundation, beam, retaining, tunnel and bridge to measure inclination.

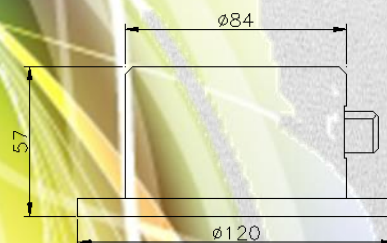
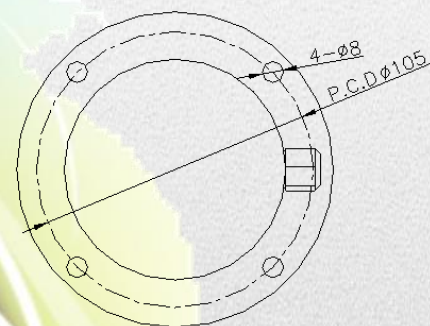
Feature

- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment



Specification

Type	ETM-5S (1 axial)	ETM-5D (2 axial)
Capacity	± 5 deg	
Rated Output	Approx. 1 ~ 4 V	
Non-linearity	1.0% RO	
Temperature Range Allowable	$-20 \sim 80^{\circ}\text{C}$	
Over Load	110%	
Safe Exciting Voltage	5V	
Electrical Connection	4Core Shield	



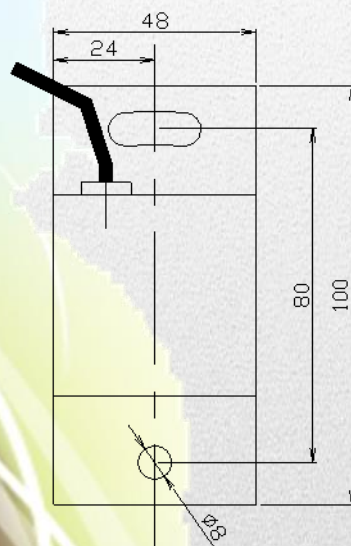
This tiltmeter is installed at foundation, beam, retaining, tunnel and bridge to measure inclination.

Feature

- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

Specification

Type	MTM-5S (1 axial)	MTM-5D (2 axial)
Capacity	±5 deg	
Rated Output	Approx. 1 ~ 4 V	
Non-linearity	1.0% RO	
Temperature Range Allowable	-20 ~ 80°C	
Over Load	110%	
Safe Exciting Voltage	5V	
Electrical Connection	4Core Shield	



This tiltmeter is installed at foundation, beam, retaining, tunnel and bridge to measure inclination.

Feature

- Electrolyte type
- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by change of jig direction at the wall surface or the ground
- Easy connection with automatic measuring equipment

Specification

Type	BTM-1 -5S/5D	BTM-2 -5S/5D
Capacity	± 5 deg	
Rated Output	1 ~ 4 V	
Non-linearity	0.5% RO	
Hysteresis	0.5% RO	
Temperature Range Allowable	$-20 \sim 80^{\circ}\text{C}$	
Over Load	110%	
Current consumption	15mA	
Safe Exciting Voltage	5V DC	
Electrical Connection	4Core Shield	

Dimension

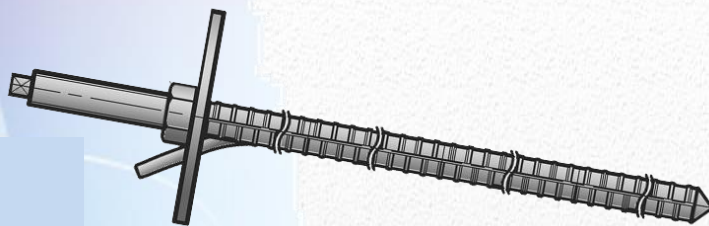
Type	A	B	C	D
BTM-1-5/5D	1000	920	50	60
BTM-2-5/5D	2000	1920	50	60



This transducer is to measure axial force so as to estimate whether increase numbers of rock bolt or not, and grasp displacement to estimate length of rock bolt.

Feature

- Long measurement by strong durability and safety
- Easy installation
- Easy connection with automatic measuring equipment

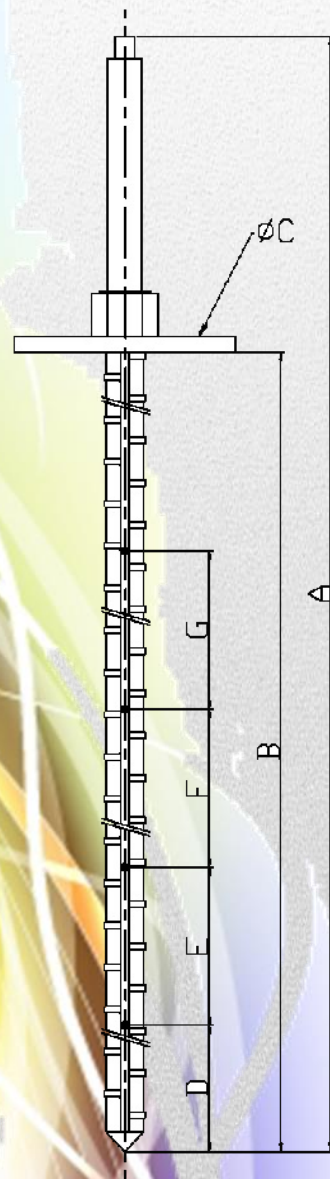


Specification

Type	RFT-2	RFT-3	RFT-4
No. of measurement	2	3	4
Reinforcing rod	D25		
Breaking point	More than 11tf		
Tensile strength	More than 16tf		
Measurement system	Quarter bridge 3-wire		
In·Output resistance	350Ω		
Safe temperature range	-10 ~ 80℃		
Safe Exciting Voltage	5V		
Electrical Connection	4Core Shield		

Dimension

Type	A	B	ØC	D	E	F	G
RFT-2	2000	1800	150	500	1000	-	-
RFT-3	3000	2800	150	500	1000	1000	-
RFT-4	4000	3800	150	500	1000	1000	1000



This meter is used to measure the pressed stress of reinforcing bar of ferroconcrete structure.

(Size can be selected according to size of reinforcing bar)

Feature

- Waterproof and dustproof
- High precision and stability by Electric resistance type
- Long measurement by strong durability and safety
- Easy installation by small size and light weight
- Easy connection with automatic measuring equipment

Specification

Type	RBS- □ □
Rated Capacity	3,000~3,500 kgf/cm ²
Rated Output	Approx. 2~2.5mV/V
Non-linearity	1% RO
Hysteresis	1% RO
Safe Temperature Range	-20 ~ 80°C
Over Load	1.5
Resistance	350Ω or 700Ω
Safe Exciting Voltage	10V
Electrical Connection	4Core Shield

Dimension

Type	A	ØB	ØC
RBS-13	90	45	13
RBS-16	95	48	16
RBS-19	95	51	19
RBS-22	95	54	22
RBS-25	95	57	25
RBS-29	95	61	29
RBS-32	95	64	32



This meter is installed to measure hardened and hardening stress of concrete or plastics,
and subsidiary materials of steel bridge.

Feature

- self-compensation of temperature type similar
coefficient of linear expansion with concrete
- High precision and stability
- available to measure hardening process due to low modulus
of elasticity



Specification

Type	SGT-100
Rated Capacity	$\pm 5,000 \times 10^{-6}$
Gauge Length	100
Rated Output	Approx. 2 - 2.5mV/V
Non-linearity	1.0% RO
Temperature Range Range Allowable	-20 ~ 60°C
Over Load	150%
Resistance	350Ω
Electrical Connection	4 Core Shield

Dimension

Type	A	ØB	ØC	D	E	F
SGT-100	104	20	17	100	4	M3, D.P6



Weldable Jig



Concrete Surface Jig

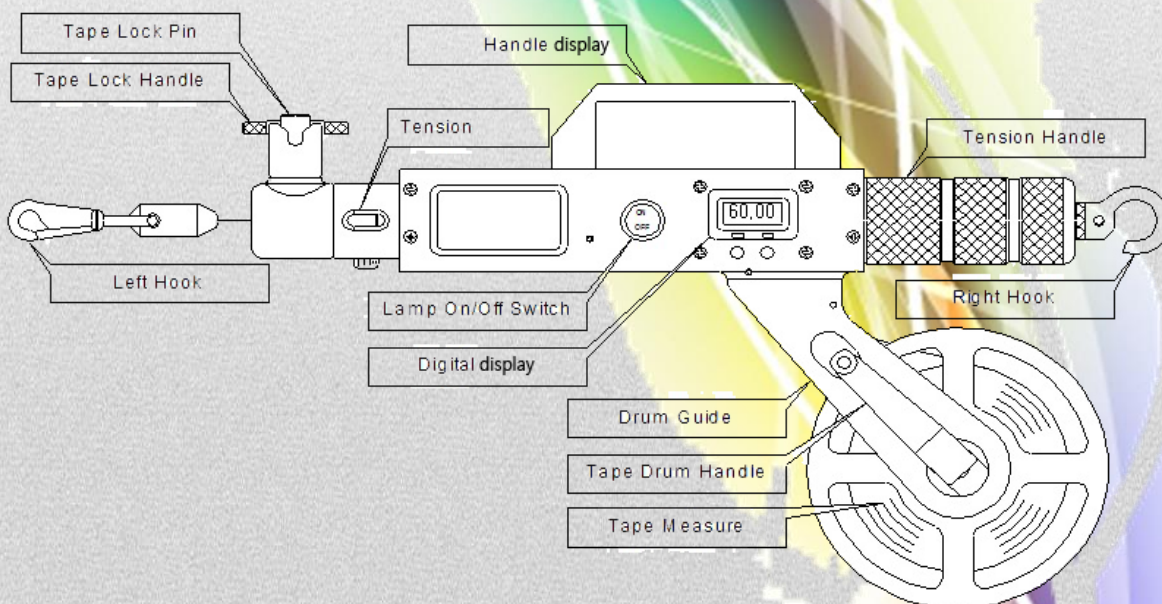
After excavation of mining, This meter is used to estimate final volume of displacement as soon as possible for check of safety and decision of additional lining, and check safety of the first lining by excavation of footwall.

Feature

- This meter is useful to sense transformation of tunnel wall by measurement of distance between anchors that are installed at the inside of tunnel.
- This meter can monitor transformation of tunnel caused by excavation of underground intensively.
- This meter can measure transformation of structure of retaining wall, supports of bridge and other structures.
- Groutable anchor can be settled at the measuring standard point.
- The inside parts are protected by strong aluminum case and digital displayer has backlight.

Specification

Type	TMC-20	TMC-30
Rated Capacity	0.6 ~ 20m	0.6 ~ 30m
Resolution Of Display	0.01mm	
Applicable Tension	Approx.130N	
Thermal Coefficient	$11,5 \times 10^{-6}/^{\circ}\text{C}$	
Dimensions	L459×H250×D50mm	



This gauge is used to measure crack displacement on the surface of concrete or structure.

This gauge can be installed easy



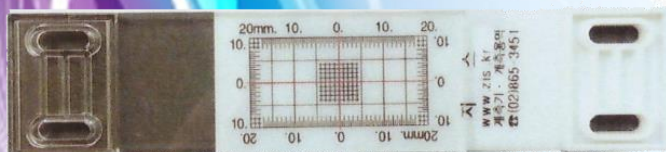
Feature

- Simple design
- High precision and safety
- Excellent responsibility
- Easy installation and control

Specification

Type	SCG-5
Gauge Length (Span)	100mm
Capacity	±5mm
Rated output	Approx. 2.5mV/V
Sensitivity(X 10^{-6} Strain/mm)	Approx. 1,000
Non-linearity	1% RO
Temperature Range allowable	0 ~40°C
Resistance	350 Ω
Recommended excitation voltage	Less than 2V
Electrical connection	4 Core shield

This meter is used to measure crack that need not high precise measurement. This crack meter can be installed easy and check crack by naked eye.



Specification

Type	CM-100
Measurement Range	1 ~ 30kgf/cm ²
Resolution	1 mm
Dimension	32 X 102 X 5 mm
Installation	Bolt or epoxy



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