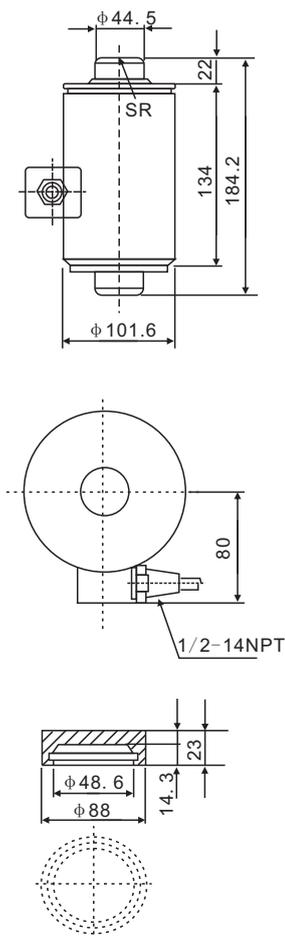


Column Load cell GCS701



Installation size (mm):



Features

1. Column Type, hermetically sealed structure, argon-arc welded, IP68 Compression, good self-centering, fast dynamic response, strong anti-overload capability
2. Simple to install, easy to use.
3. Suitable for electronic truck scales, dynamic railroad scale and big capacity hopper scale, etc.

Main Dimensions and Accessories

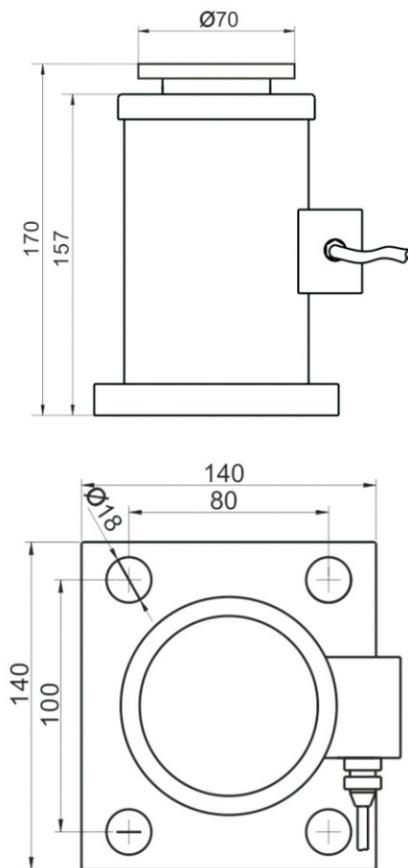
Capacity		Size mm
t	Klb	SR
20	50	250.0
45	100	355.6
45100355.6 Rated Output(mv/v)		2.00±0.005
Nonlinearity		±0.02%FS
Hysteresis		±0.02%FS
Repeatability		±0.01%FS
Creep(30min)		±0.02%FS
Zero Balance		±1.00%FS
Temperature Effect on Zero		±0.02%FS/10°C
Temperature Effect on Output		±0.02%FS/10°C
Input Resistance(Ω)		1150±15
Output Resistance(Ω)		1050±5
Insulation Resistance		≥5000MΩ
Excitation Voltage		10VDC/AC
Compensation Temperature Range		-10°C~+50°C
Operating Temperature Range		-20°C~+60°C
Safe Overload		120%FS
Cable		6*12m
Cable Color Code		Input: Red(+) Black(-) Output: Green(+) White(-)

Column Load cell GCS702



Patent holder of no-pressure head column type load cell

Installation size (mm):



Cost neutrality, with additional 7 selling points

1. Super strong ability to anti shock pressure(the biggest difference of working principle between column type and bridge type load cell)
2. Can be used in water (complete sealed structure , normal operation under 10 m water)
3. Can work under harsh environment like in dust and sand condition. (ball head unexposed)
4. Can work under bitter could and icing situation. (complete sealed, ball head will not iced)
5. Open location for weighing scale, and can bear side impact. (Sensor with reset function)
6. Long-term stability, time doubled. (No press mark caused by ball type press head, precision change is rare in the long run.)
7. Installation size compliable with existing floor scale in market, easy maintenance, reducing in installation requirement.(reduced requirement on alignment, 5mm off-centering is allowed without effecting the accuracy.)

Main features

The material used for elastomer of load cell is alloy steel, sealed or solder sealed; nickel-plated treatment on surface, water-proof, anti-corrosion, protection grade of IP66 & Ip68.

Application

Widely applied for force control in the industrial process, batching control system, test equipment, and all other kinds of weighing equipment.

Capacity

10t, 20t, 30t, 40t, 50t

Force diagram



Analog wiring mode

- Red wire: excitation (+)
- green wire: signal (+)
- black wire : excitation (-)
- white wire: signal (-)

Remark:

four-core shielded cable is used, specification: $\phi 5 \times 12000\text{mm}$, any special requirement, we can customize as customers' detailed request.

Technical Specification

Standard load cell sensors

- Rated load:10t / 20t / 30t / 40t
- Accuracy : C2 / C3
- Comprehensive Error (%F.S) : $\pm 0.03 / \pm 0.02$
- Temp effect on sensitivity(%F.S/10°C) : $\pm 0.017 / \pm 0.011$
- Creep (%F.S/30min) : $\pm 0.023 / \pm 0.016$
- Zero output(%F.S) : ± 1.5
- insulation resistance (M Ω) : $\geq 5000(100\text{VDC})$
- Input resistance (Ω) : 700 ± 10
- Output resistance(Ω) : 700 ± 5
- min load cell verification interval(v min) : Emax 5000 / 10000
- Temp. effect on zero (%F.S/10°C) : $\pm 0.023 / \pm 0.015$
- temperature compensation range (°C) : $-10 \sim +40$
- Working temperature(°C) : $-30 \sim +70$
- Recommend excitation voltage(V) : $5 \sim 12(\text{DC})$
- Safe overload(%F.S) : 150
- Ultimate overload(%F.S) : 200
- Protection Class: IP68
- Output sensitivity(mV/V) : 2.0 ± 0.002
- Max excitation voltage(V) : 18(DC)

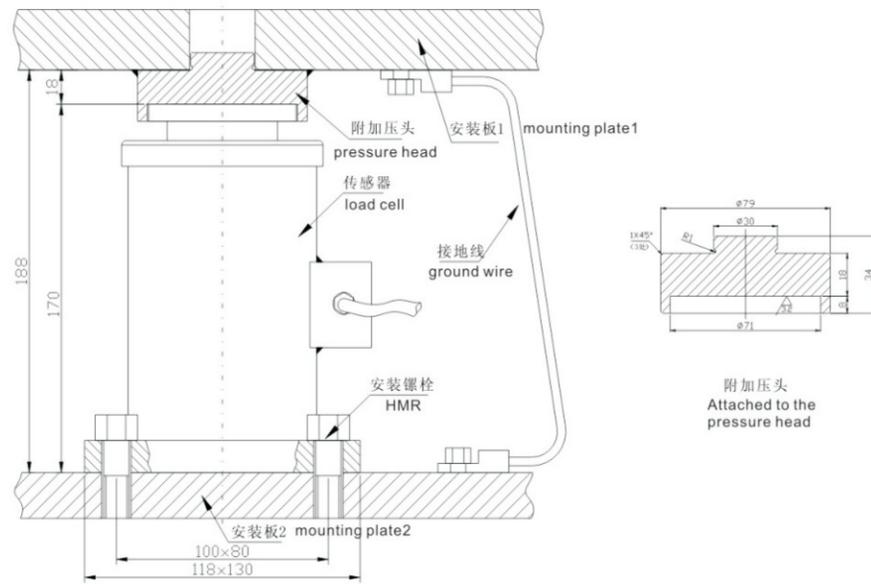
Digital load cell sensor

- Rated load:10t / 20t / 30t / 40t
- precision:C3
- Comprehensive error: $\pm 0.02\% \text{FS}$
- Rated output:1.000.000Counts
- Creep: $\pm 0.02\% \text{FS} / 10\text{min}$
- Tem.effect on span: $\pm 0.02\% \text{FS} / 10^\circ \text{C}$
- Tem.effect on zero: $\pm 0.02\% \text{FS} / 10^\circ \text{C}$
- Compensated temp.range: $-10 \sim +40^\circ \text{C}$
- Use temp.range: $-20 \sim +60^\circ \text{C}$
- Excutation voltage: $5.5 \sim 15\text{VDC}$
- A/D Moduin resolution:1.000,000
- Communication BPS:9600BPS
- Communication port:RS485/RS232
- Digital refurbishing frequency: $10 \sim 80/\text{s}$
- Maximum of verification scale intervals:5000
- Max. communication range:1200m
- Num. of the address bus:32
- Safe overload:150%
- Defend grade:IP68

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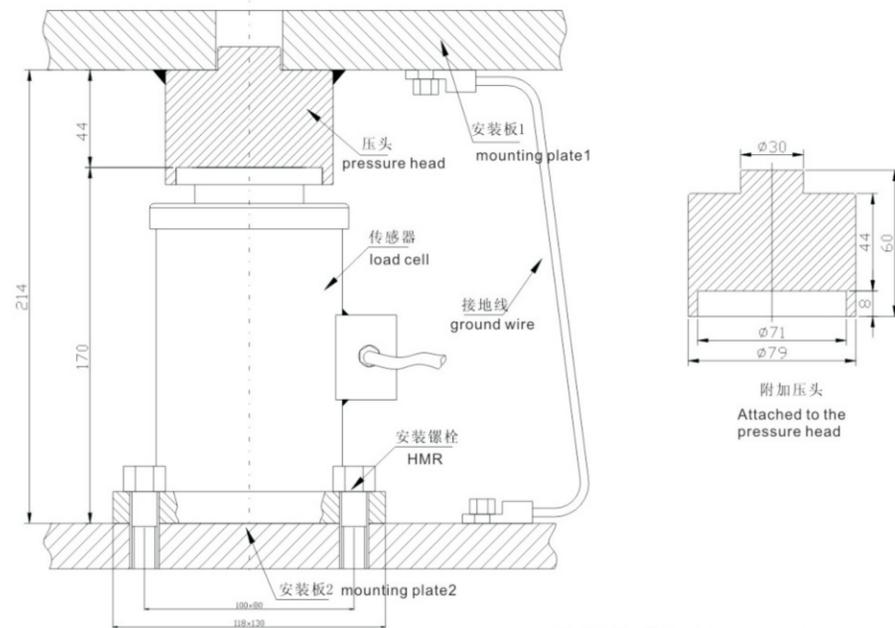
Installation

1. This structure USES the normal installation of the transducer



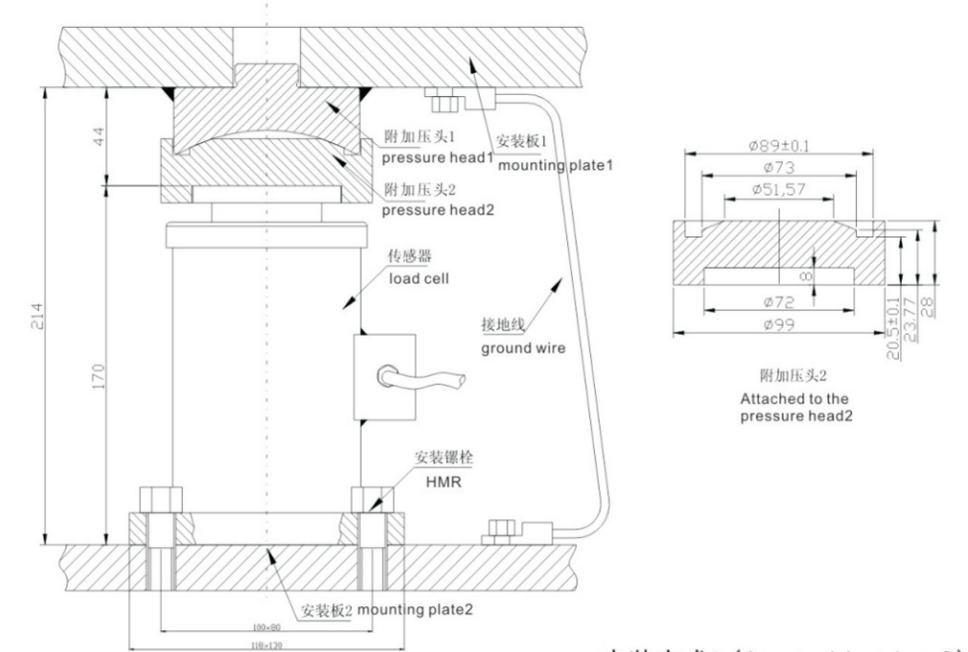
安装方式1 (Installation1)

2. With the traditional bridge type sensor is equal the height of the installation



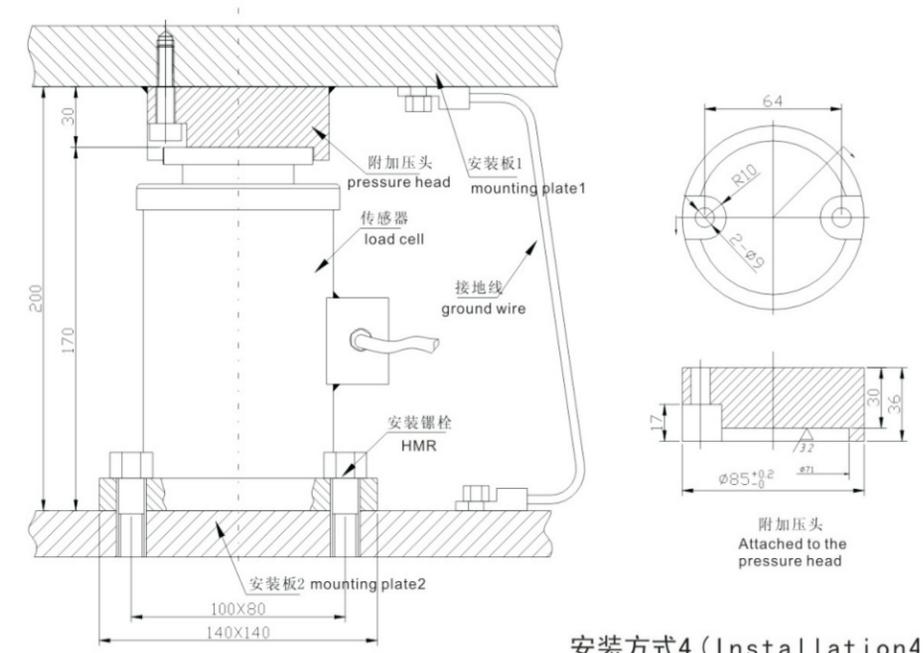
安装方式2 (Installation2)

3. Can replace welding bridge sensor head installation



安装方式3 (Installation3)

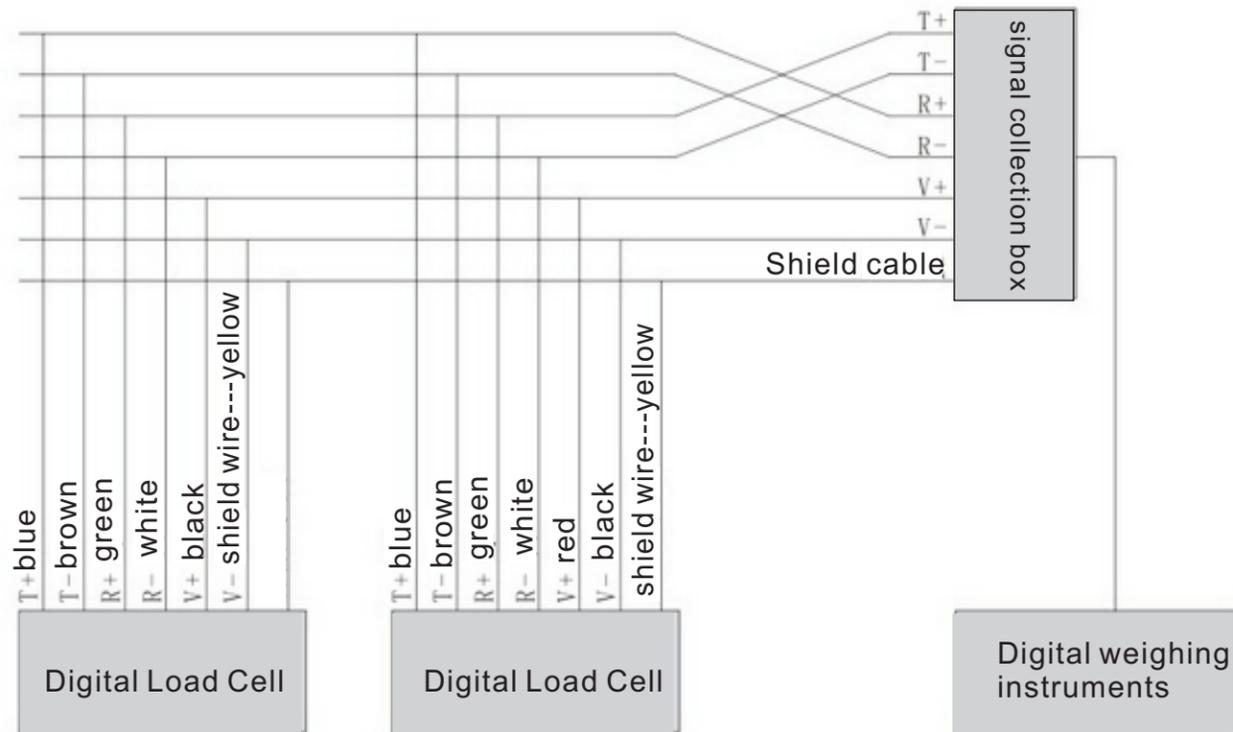
4. Alternative column type sensor (bring down head) of the standard installation



安装方式4 (Installation4)

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Digital wiring mode



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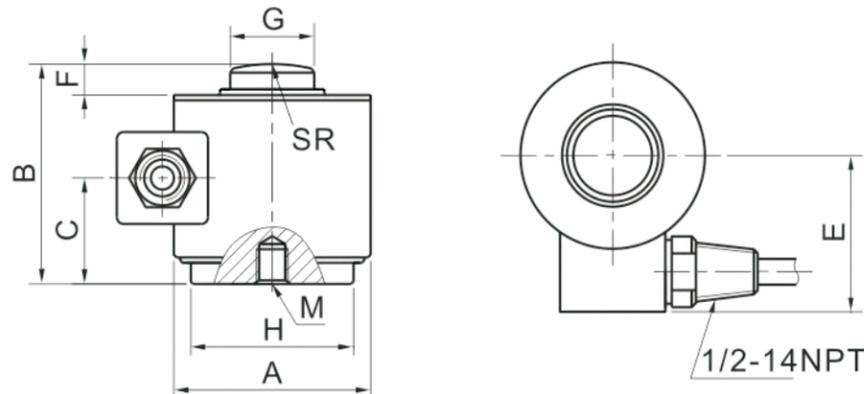
Column Load cell GCS703

Features

1. Column type, hermetically sealed structure,
2. Argon-arc welded, IP68 compression, fast
3. Dynamic response, strong anti-overload
4. Capability, upper ball head load bearing
5. Simple to install, easy to use suitable for
6. Electronic truck scale, dynamic railroad
7. Scale and big capacity hopper scale, etc.



Installation size (mm):



Main Dimensions and Accessories

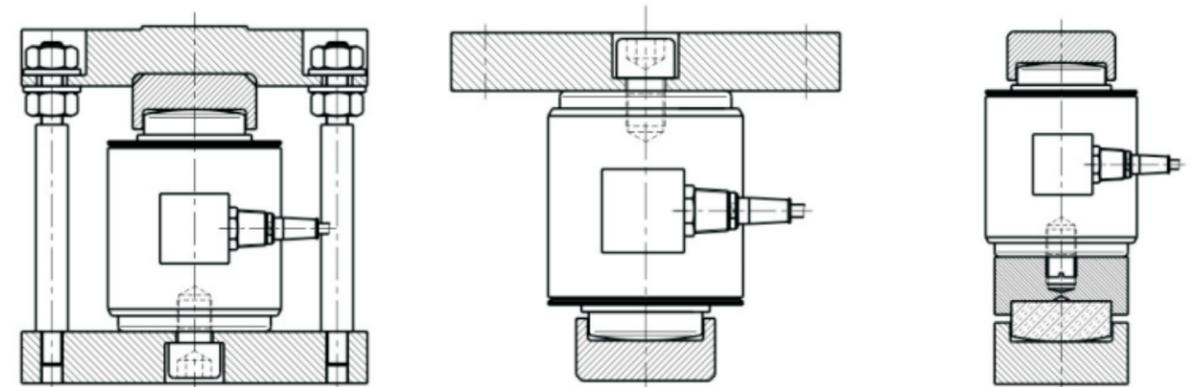
Capacity		Size mm								M		
t	Klb	A	B	C	E	F	G	H	SR	Inch	mm	DP
5-20	10-50	75.0	83.0	32.5	64.0	10.0	31.8	62.0	125.0	1/2-20	M12×1.75	13.0
45	100	100.6	127.0	54.6	86.0	14.0	59.0	88.6	152.0	3/4-16	M20×1.5	18.0
90-180	200-400	150.6	184.5	92.0	108.0	26.0	80.0	134.4	400.0	3/4-16	M20×1.5	25.0
225	500	164.0	229.0	92.0	108.0	26.0	93.7	148.0	400.0	3/4-16	M20×1.5	25.0
450	1000	177.0	304.8	117.0	115.0	26.0	139.7	165.1	1143.0	3/4-16	M20×1.5	32.0

Specifications

Rated Output(mV/V)	1.75±0.005	Input Resistance(Ω)	450±5
Nonlinearity	±0.02%FS	Output Resistance(Ω)	480±3
Hysteresis	±0.02%FS	Insulation Resistance	≥5000MΩ
Repeatability	±0.01%FS	Excitation Voltage	10V(DC/AC)
Creep(30minutes)	±0.02%FS	Compensated Temperature Range	-10℃~+50℃
Zero Balance	±1.00%FS	Operating Temperature Range	-20℃~+60℃
Temperature Effect on Zero	±0.02%FS/10℃	Safe Overload	120%FS
Temperature Effect on Output	±0.02%FS/10℃	Cable	Ø6×9(12)m

Cable Color Code

INPUT: RED(+) BLACK(-)
 OUTPUT: GREEN(+) WHITE(-)
 SENSE: BLUE(+) YELLOW(-)



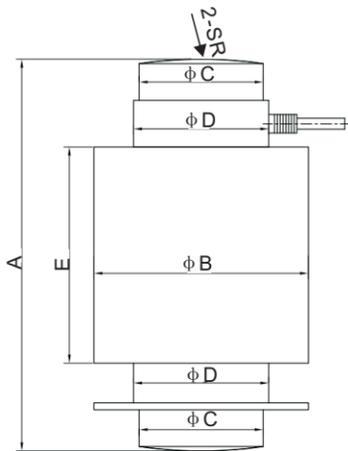
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Column Load cell GCS705



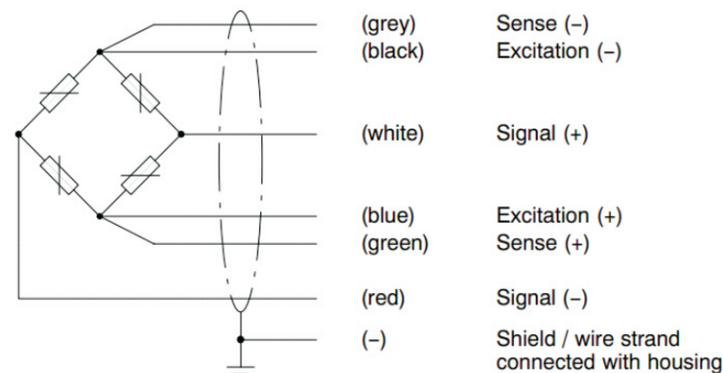
Installation size (mm):



Parameters

Load Capacity	15t 20t 30t 40t
Comprehensive Accuracy	D1 C3
Sensitivity	2.0mv/v±0.5%
Zero Balance	±0.1%FS
Input Resistance(Ω)	700±20
Output Resistance(Ω)	705±3
Insulation Resistance	≥5000MΩ
Excitation Voltage	5~15VDC/AC
Compensation Temperature Range	-10℃~+40℃
Operating Temperature Range	-30℃~+70℃
Safe Overload	150%FS
Cable	12m,20m(40t)
Ultimate Overload	300% F.S
Material	Alloy Steel, Stainless Steel
Protection Grade	IP68

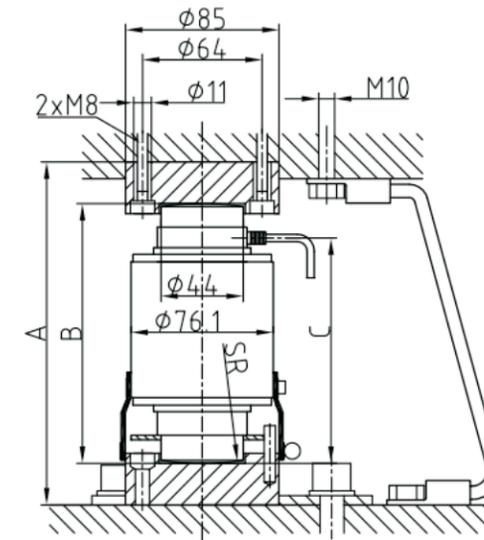
Wiring code(6-wire circuit)



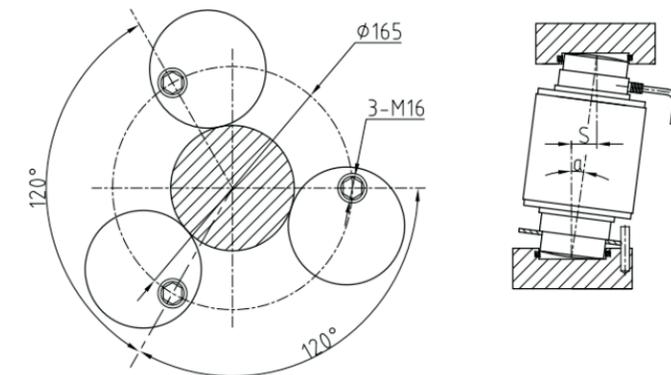
rated load (t)	Size(mm)					
	A	B	C	D	E	SR
15	130.0	76.1	44.0	48.0	76.1	110.0
20	150.0	76.1	44.0	48.0	76.1	130.0
30	150.0	76.1	44.0	48.0	76.1	160.0
40	150.0	76.1	44.0	48.0	76.1	180.0

Remark: Full Replacement of Germany HBM C16A column Load Cell (including dimension, data, connection)

Installation drawing



TOP VIEW



DIMENSION

Size Range	A	B	C	SR	a _{max}	S _{max}	F _R {% of applide load}	
							at S _{max}	at S=1mm
15t	160	130	112	110	5°	11	6.0	0.55
15t	180	130	112	110	5°	11	6.0	0.55
20t	200	150	123	130	5°	13	6.4	0.49
30t	200	150	123	160	5°	13	9.9	0.76
40t	200	150	123	180	5°	13	12.2	0.94

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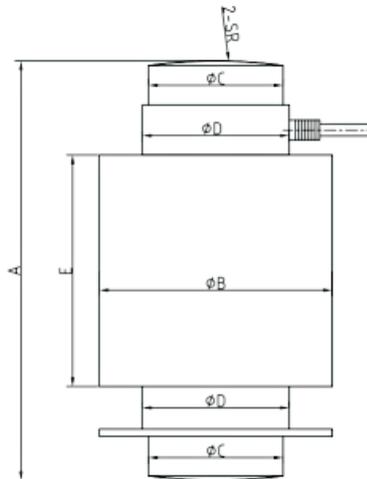
DIGITAL LOAD CELL

GCS705D

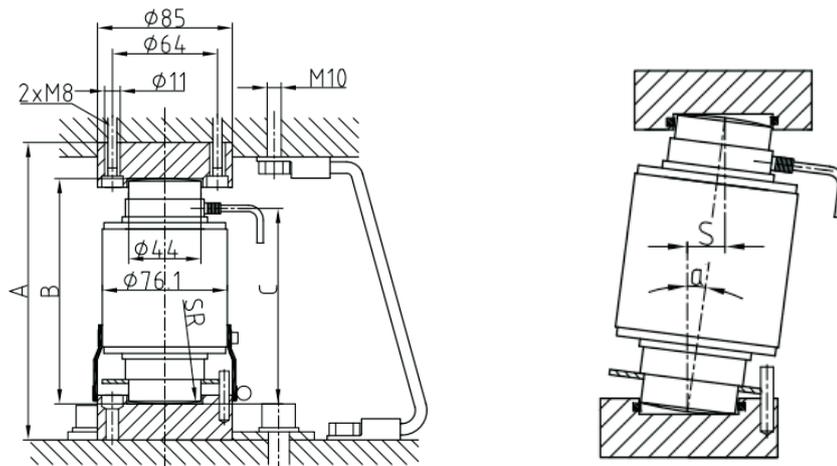
FEATURES

- Wide range, strong overload ability
- Suitable for electronic truck scales, track scales and other electronic weighing devices

Rated load	Size(mm)					
	A	B	C	D	E	SR
15	130	76.1	44	48	76.1	110
20	150	76.1	44	48	76.1	130
30	150	76.1	44	48	76.1	160
40	150	76.1	44	48	76.1	180



ASSEMBLY DRAWING

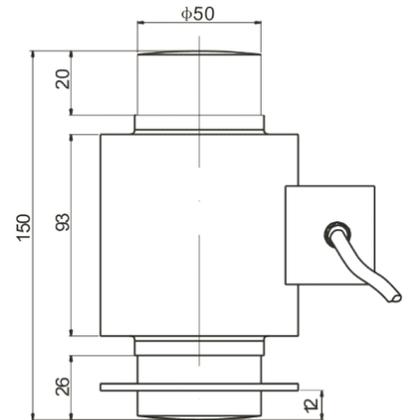
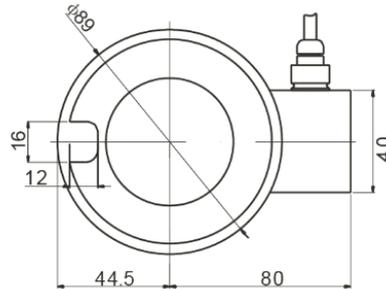


Rated load	Size(mm)					
	A	B	C	D	E	S
15	180	130	112	110	5°	11
20	200	150	112	130	5°	13
30	200	150	123	160	5°	13
40	200	150	123	180	5°	13

Technical Parameter 

Rated load	15, 20, 30, 40t
Digital load cell ISN	500000 code
Resolution	60000 code
Rated Output	20000,25000,30000,40000,50000 ISN
Digital Refurbishing frequency	50 times/sec.
Communication BPS	9600 BPS
Combined Error	$\pm 0.02\%F.S$
Creep	$\pm 0.02\%F.S/30min$
Temperature Effect	$\pm 0.02\%F.S/10^{\circ}C$
Zero Balance	$\pm 0.1\%F.S$
Operating Temp Range	-30~+70 $^{\circ}C$
Recommended Excitation	9-12VDC
Maximum Excitation	20VDC
Safe Overload	150%FS
Maxium Transmitting Distance	1200m
Environmental Protection	IP68
Construction	Alloy Steel/Stainless Steel

GCS708



APPLICATIONS AND FEATURES

- Plate column sensor is made of stainless steel.
- Laser welding sealing treatment, can be anti-oil, waterproof, anti-corrosive gases and media;
- It's suit for electronic platform scale, automobile detection system, hopper scale and other electronic weighing equipment

SPECIFICATIONS

Rated Capacity	10t 20t 30t 40t 50t		
Comprehensive Error	$\pm 0.02\%FS$	Input Resistance	$700\pm 5\Omega$
Sensitivity	$2.0\pm 0.01mV/V$	Output Resistance	$700\pm 5\Omega$
Creep	$\pm 0.023\pm 0.016\%FS/30min$	Insulation Resistance	$\geq 5000M\Omega$
Zero Balance	$1.5\%FS$	Excitation Voltage	$5\sim 12VDC$
Temp. Effect on zero	$\pm 0.023\pm 0.015\%FS/10^{\circ}C$	Safe Overload	$150\%FS$
Use Temp. Range	$-35^{\circ}C \sim +70^{\circ}C$	Wire Gauge	$\Phi 6\times 10000mm$
Ingress Protection	IP68		

Cable connection mode:

Input: Red(+) Black(-)

Output: Green(+) White(-)