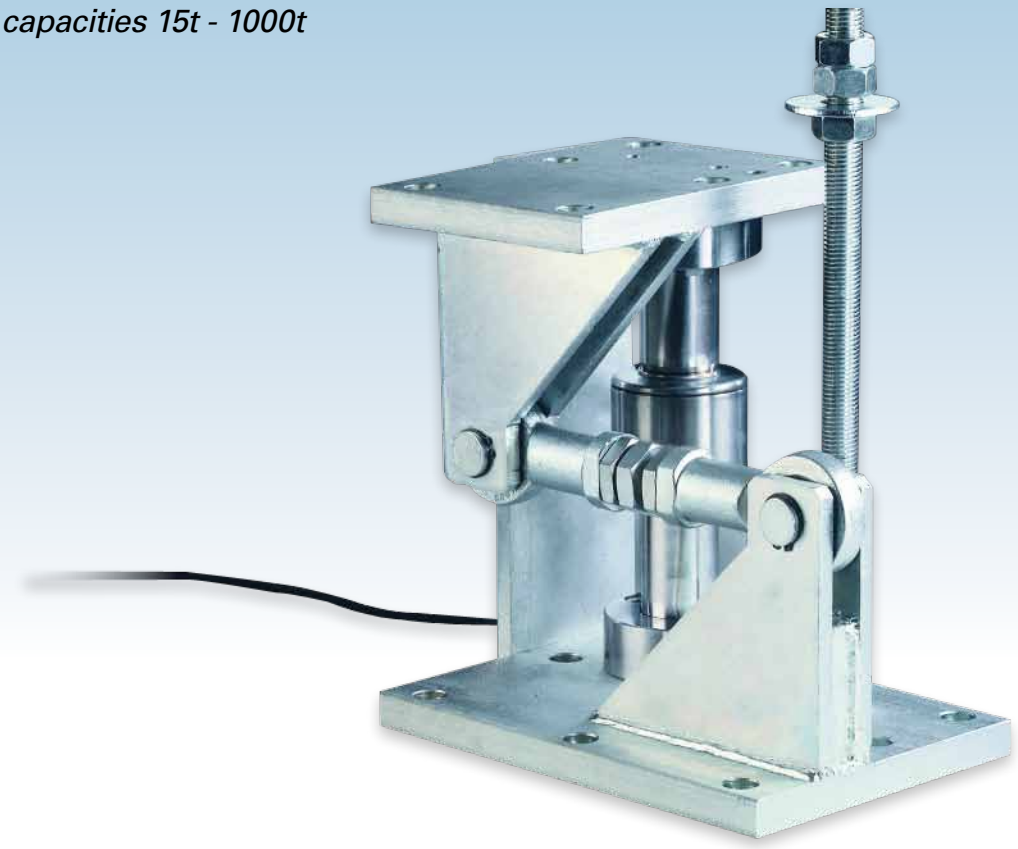
T34 SILO

Thames Side

COMPRESSION COLUMN LOAD CELL FOR SILO WEIGHING

capacities 15t - 1000t



High capacity weighing problems solved simply and cost-effectively.

The high capacity Model T34 stainless steel column load cell and mounting assembly are designed specifically for silo weighing applications. The design utilises horizontal retention arm and incorporates lift off prevention via integral check rods for increased safety.

The T34 load cell is also available with intrinsically safe ATEX certification and a high temperature variant. End use industries include cement, minerals, coal, chemicals, plastics, pharmaceuticals, paint and grain.

- Stainless steel load sensor
- Hermetically welded and sealed to IP68/IP69K
- In-built surge arrestors for lightning protection
- High durability PU cable
- Simple installation
- Self-centering column design with anti-rotation pin
- 5 year warranty
- OIML R60 Class C
- Pre-corner adjustment optimised for multi-cell systems
- ATEX certification for all zones

T34 SILO

installation & dimension details...

THE CONCEPT

The high capacity T34 family of load cells is available in capacities from 15t to 1000t. They are especially suitable for silo weighing and feature a combined error specification of <±0.013 up to 60t and <±0.005 from 100t to 1000t.

The critical sensor element is a fully welded and hermetically sealed column load cell, manufactured from high tensile stainless steel which is heat treated. This provides an extremely stable platform for the strain gauges, resulting in excellent accuracy and repeatability. In common with all Thames Side load cells, the strain gauged element is temperature compensated to ensure accuracy is maintained through a wide temperature range.

The stainless steel cover is TIG welded in position to provide total environmental sealing. This method of construction, together with the fitting of a high quality cable gland, allows Thames Side to offer a 5 year warranty on the complete unit.

As many silo installations are in areas where lighting strikes are a distinct possibility, the T34 load cell incorporates lightning protection in the form of surge arrestors to minimise potential damage.

The mounting assembly, which is supplied fully assembled with the load cell in position, is zinc plated to provide a high level of corrosion protection and includes an earth cable as standard to prevent any damage to the load cell as a result of welding activity after installation. It is delivered with a transport plate to protect the load cell and which is removed during installation.

The assembly is fitted with integral lift off prevention check rods as well as a retention arm to absorb horizontal forces, typically generated by wind loading on large silos. Expansion/ contraction of the silo structure is catered for by the rocker pin design of the T34 which allows a degree of movement in the transverse direction to the retention arm.

ATEX CERTIFICATION

The T34 range has a number of ATEX certifications which allow their use in some applications without safety barriers, resulting in significant cost savings.

Code	Temperature Class	Parameters	Application
II 1 GD Ex ia II C T4..T6 Ga Ex ia IIIC T135°C... T85°C Da Ex ta IIIC T85°C Da	T4	Pi = 1.3W	Gas Zones 0, 1, 2 with safety barriers Dust Zones 20, 21, 22 without safety barriers
	T5	Pi = 0.6W	
	T6	Pi = 0.2W	

HIGH TEMPERATURE

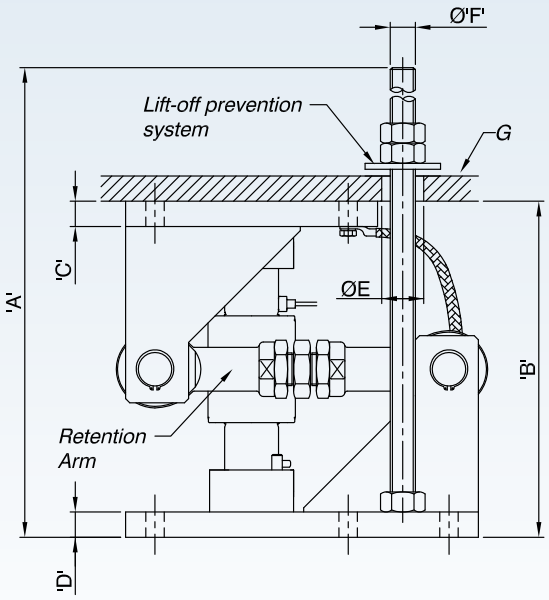
The T34 range is available in a high temperature variant which utilises special load cell components and a PTFE 'Teflon' cable for operation in environments up to 150°C

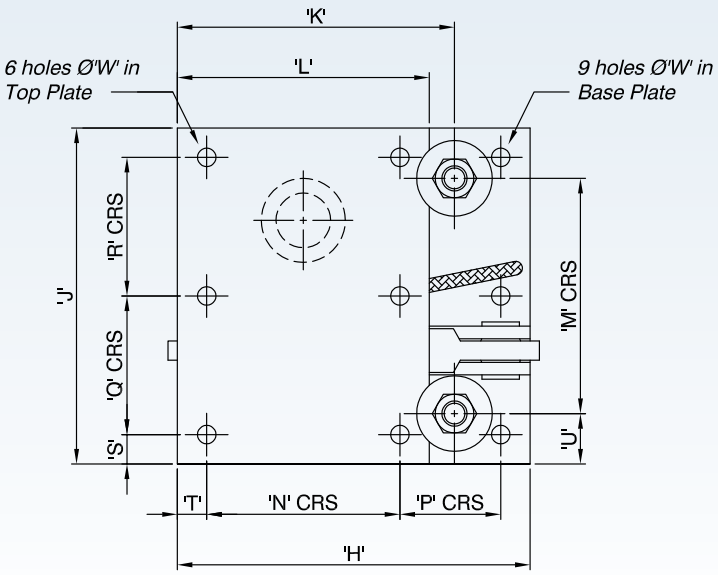
ENVIRONMENTAL PROTECTION

A special parylene coating can be specified as an option to provide additional protection in extreme environments where stress corrosion could occur, for example where chlorine or acids are present.









LA34 Mounting Assembly

Mounting Assembly	LA34-40T-SILO				LA34-60T-SILO	LA34-200T-SILO		LA34-400T-SILO	LA34-600T-SILO	LA34-1000T-SILO	
Load Cell Capacity	**15**	**20**	**30**	**40**	**60**	**100**	**200**	**400**	**600**	**800**	**1000**
A	500				500	1000		1030	1035	1040	
B	230				300	400		460	510	620	
C	15				20	30		30	35	40	
D	15				20	30		35	35	40	
E	28				28	50		50	55	60	
F	M20				M20	M30		M30	M33	M36	
G	3				3	3		3	3	5	
H	280				280	420		460	530	600	
J	200				200	400		400	450	600	
K	197.5				197.5	330		346	400	460	
L	160				160	300		316	345	410	
M						280		280	320	435	
N	115				115	230		230	270	320	
P	115				115	120		120	180	200	
Q	102.5				102.5	165		165	185	250	
R	65				65	165		165	185	250	
S	15				15	35		35	40	50	
T	25				25	35		51	40	40	
U						60		60	65	82.5	
W	18				18	22		22	24	27	

All dimensions in mm

T34 SILO

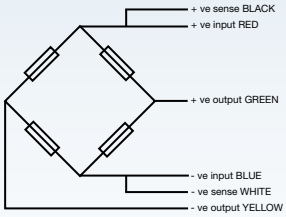
technical specification...

Thames Side

T34 Load Cell

	Load cell specification		Units
Capacity	15, 20, 30, 40, 60	100, 200, 400, 600, 800, 1000	t
Full Load Output	2.0 ± 0.5%		mV/V
Accuracy Class	4000	1000	n. OIML
Excitation - *Recommended*	10		V
Excitation - *Maximum*	15		V
Service Load	120		%
Safe Load Limit	150		%
Combined Error	<± 0.013	<± 0.05	%
Non-Repeatability	<± 0.015		%
Output at Zero Load	±2.0		%
Input Resistance	800 ± 5		Ω
Output Resistance	705 ± 5		Ω
Operational Temperature Range	-50 to +70		°C
Compensated Temperature Range	-10 to +40		°C
Temperature Coefficient on Zero	<± 0.002		%/°C
Temperature Coefficient on Span	<± 0.0012	<± 0.0036	%/°C
Creep Error (30 minutes)	<± 0.012	<± 0.048	%
Environmental Protection	IP68/ IP69K		
Cable Length	20		m
Cable Material	Polyurethane		
Insulation	>5000		MΩ

All percentanges are related to Full Rated Load



Electrical Connections

Via 6 wire, 5.7mm diameter, screened polyurethane cable.
Screen not connected electrically to load cell.

Construction

Sensor element
High strength stainless steel type 17-4PH

Mounting assembly
Zinc plated alloy steel

LA34 Mounting Assembly

Mounting Assembly	Load Cell Capacity (t)	Maximum Lift-off (kN)	Maximum Horizontal Force in direction of retention arm (kN)	Maximum Side Offset transverse to retention arm (mm)
LA34-40T-SILO	15	76	47	+/- 4
	20			
	30			
	40			
LA34-60T-SILO	60	114	95	+/- 4
LA34-200T-SILO	100	228	180	+/- 5
	200			
LA34-400T-SILO	400	330	240	+/- 5
LA34-600T-SILO	600	395	290	+/- 5
LA34-1000T-SILO	800	480	450	+/- 6
	1000			

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Our policy is one of continuous product enhancement. We therefore reserve the right to incorporate technical modifications without prior notification.