

# Digital Load Cells with a Difference

APEC's line of load cells, instrumentation and communications modules are designed to work together to make your weight based process control systems simple to implement. But that's not all that makes our load cells different. The APEC line use capacitance to measure the load on the cells. This unique feature makes the cell less prone to overload and more immune to electrical noise and signal loss. Available mounting plates and load checking hard-ware makes these load cells easy to incorporate into almost any design.

We offer a series of hygienic load cells and base plates for clean room environments. Fasteners and their threads are not exposed to the possibility of contamination.

Load cell cables are field repairable or replaceable without re-calibration of the weighing system; even if you change the length. Cables are RG58 coaxial with BNC connectors and can be up to 100m (325-ft) long per load cell. No longer will you need to connect "fiddly" little wires in the field. Cables are available with a variety of coverings.

Display screens and instrumentation are available in a variety of configurations and enclosure types. If you do not need a display we can provide "blind" instruments to embed inside your control panels.

No matter if you are working with a single load cell or with multiple load cell system, you have a choice of reading a summed signal, or each individual load cell in the system. Set the desired output type during your setup routine. This also means you could have 4 separate scales being input through the same communication module.



**Single Point**



**Bending Beam**



**Compression**



**HD Beam**



**Hygienic Beam Load Cell**



**HD Compression**



**Weighing Terminal**



**Ethernet, DeviceNet, ProfiBus, ProfiNet and Serial interfaces available**

# Capacitance Sensors for Processing Weigh Systems



Single Point



Bending Beam



Compression



HD Beam



HD Compression

MODEL NUMBER	SPSX	BL	CL and CM	BM 70 and BM80	CH
Load Cell Output	Digital - RS485	Digital - RS485	Digital - RS485	Digital - RS485	Digital - RS485
Capacities (kg and tonne)	2kg to 250kg	5kg to 1000kg	50kg to 25,000kg	1000kg to 7000kg	100 to 500 tonne
Capacities (lb and tons)	5lbs to 550lbs	10lbs to 2200lbs	110lbs to 55,000lbs	2200lbs to 15,400lbs	110 ton to 550 ton
Load cell safe overload % of FS	300% to 1000%	300% to 1000%	200% to 500%	300% to 1000%	Up to 400%
Load cell safe side load % of FS	500% to 2000%	500% to 2000%	300% to 1000%	500% to 1000%	Up to 500%
Load cell material	17 - 4ph and 316 stainless	17 - 4ph and 316 stainless	17 - 4ph and 316 stainless	17 - 4ph and 316 stainless	17 - 4ph and 316 stainless
Standard accuracy ranges (% of full scale)	0.025% to 0.015%	0.1%, 0.05%, and 0.025%	0.1%, 0.05%, and 0.025%	0.25%, and 0.1%	0.25%
Enhance accuracy available	YES	YES	YES	YES	YES
Repeatability	Up to 0.005% of Emax	Up to 0.01% of Emax	Up to 0.01% of Emax	Up to 0.01% of Emax	Up to 0.06% of Emax
Deflection at max load	0.1mm	0.1mm	0.2mm	0.1mm	0.1mm
Hermetically sealed - welded	YES - IP68	YES - IP68	YES - IP68	YES - IP68	YES - IP68
ATEX Approved - Hazardous area	YES - Zone 1, 2, 21, and 22	YES - Zone 1, 2, 21, and 22	YES - Zone 1, 2, 21, and 22	YES - Zone 1, 2, 21, and 22	YES - Zone 1, 2, 21, and 22
ATEX MODEL NUMBER	SPSX-Ex	BL-Ex	CL-Ex and CM-Ex	BM-Ex	CH-Ex
Temperature Range -50°C to 70°C	YES - 100°C w/Teflon cable	YES - 100°C w/Teflon cable	YES - 100°C w/Teflon cable	YES - 100°C w/Teflon cable	YES - 100°C w/Teflon cable
Field replaceable cable	YES - no recalibration	YES - no recalibration	YES - no recalibration	YES - no recalibration	YES - no recalibration
Maximum cable length	325ft (100m)	325ft (100m)	325ft (100m)	325ft (100m)	325ft (100m)
Cable type	Co-axial with BNC connector	Co-axial with BNC connector	Co-axial with BNC connector	Co-axial with BNC connector	Co-axial with BNC connector
Load and base plates	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
Load and base plate drawings	AVAILABLE - NO CHARGE	AVAILABLE - NO CHARGE	AVAILABLE - NO CHARGE	AVAILABLE - NO CHARGE	AVAILABLE - NO CHARGE
Material for load and base plates	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Patented	YES	YES	YES	YES	YES
<i>EHEDG</i> * compliant design	YES	YES	YES	-	-
Special available	YES	YES	YES	YES	YES
Profile height - maximum sizes	118mm L x 49mm W x 75mm H	190mm L x 50mm W x 80mm H	99.5mm Ø x 55mm H (CL) 124mm Ø x 65mm H (CM)	395mm L x 79mm W x 89mm H	245mm Ø x 150mm H (without plates)
Load cells w/mounting hardware (except CH 6000)					

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