

Unequalled Reliability Keeps Your Scale Working



Vehicle Weighing

POWERCELL PDX load cells provide reliable weighing for heavy-capacity applications such as truck and rail scales. They are designed to perform in the toughest industrial environments and in the most forbidding climates, from the tropics to the polar regions.



No Junction Boxes

POWERCELL PDX load cells connect to one another in a simple network that eliminates the need for high-maintenance junction boxes. Load cells, cables, and connectors are watertight, sealing the entire network against failures caused by floods and normal scale cleaning.



Advanced Diagnostics

Unlike other load cells, POWERCELL PDX load cells have a predictive diagnostics system that constantly monitors the performance of each load cell and automatically corrects for changes in temperature and other environmental factors. It instantly alerts the scale operator to any potential problems in the scale system.



Rocker Column

An integral rocker-column suspension automatically aligns the load cell for accurate weighing. A debris shield keeps the lower end of the rocker column free of debris and stones that can affect weighing accuracy.



POWERCELL™ PDX™ Load Cell

The load cell uses proven POWERCELL technology that has demonstrated the ability to meet the real-world demands of vehicle weighing. It builds on past generations of POWERCELL load cells by adding the industry's most advanced diagnostic capabilities. To provide the ultimate in reliability, the predictive diagnostics system continually monitors each load cell and its environment. It provides peace of mind by verifying that each load cell in a system is performing properly. The POWERCELL PDX load cell system is designed for proactive service, alerting you to potential problems before they occur. It helps avoid problems and, if problems do occur, enables service technicians to make the right repairs the first time and make them quickly.

METTLER TOLEDO

POWERCELL™ PDX™ Load Cell Specifications

Parameter	Unit of Measure	Specification	
Trade Name		POWERCELL PDX	
Model Number		SLC820	
Load Cell Type		Column Compression, Digital Weight Processor (DWP)	
Rated Capacity (R.C.) ¹	† (klb, nominal)	30 (66)	50 (110)
Sensitivity at R.C.	d @ R.C.	300,000	500,000
Communication		Controller Area Network (CAN), Encrypted	
Communication Rate	kbit/sec	125	
Effective System Update Rate (14 cells)	Hz	40	
Effective System Update Rate (24 cells)	Hz	15	

Weighing Performance

Cable Length, Cell to Cell (typical)		m (ft)	5, 12 (16, 39)				
Cable Length, Home Run (maximum)		m (ft)	100, 200, 300 (328, 656, 984)				
Warm-up Time from Cold Start		minutes	15				
Effect of Cable Length on System Accuracy		kg	0				
Temperature Effect on Minimum Dead Load Output		Vmin/°C (.../°F)	0.8/5°C (0.8/9°F)				
Temperature Range	Compensated ²	°C (°F)	-10 to +40 (+14 to +104)				
	Operating	°C (°F)	-30 to +55 (-22 to +131)				
	Safe Storage	°C (°F)	-40 to +80 (-40 to +176)				
Humidity Effect, Continuous		100% RH	0				
Barometric Pressure Effect on Zero Load Output		Vmin/kPa	< 1				
Metrology	Linearity ³	ppm R.C.	< 100				
	Hysteresis	ppm R.C.	< 160				
	Combined Error ³	ppm R.C.	< 300				
Temperature Effect on	Class		C3	C4	C6	C3	C4
	Span ^{3, 4}	ppm R.C./°C	<± 13.3	<± 10.0	<± 6.6	<± 13.3	<± 10.0
Creep at R.C. ⁴	10s to 30m	ppm R.C.	<± 167	<± 125	<± 83	<± 167	<± 125
Zero Return ⁴	30 min at R.C.	ppm R.C.	<± 167	<± 125	<± 83	<± 167	<± 125
Nonrepeatability		ppm R.C.	<± 50				
Zero Balance		%R.C.	< 0.1				

Predictive Diagnostics (System)

Breach Detection		Loss of Hermetic Seal				
Maximum Overload		Maximum Overload				
Load Cell Temperature		Minimum, Maximum, Actual				
Asset Management		Serial Number				
Load Cell Voltage		Minimum, Maximum, Actual				
Communication Signal Level		High, Low				
Tilt Angle		Current Position, Maximum Recorded				

Metrological Approvals

European/OIML Approval ⁵	Number		TC7579; T2206; R60/2000-NL1-09:08				
	Class		C3	C4	C6	C3	C4
	nmax		3000	4000	6000	3000	4000
	Y		6383	12,500	20,000	8772	12,500
	Vmin	kg	4.7	2.4	1.5	5.7	4.0
	pLC		0.8 (Terminal = 1)				
	Humidity Symbol		CH (Hermetic Seal)				
	Min. Dead Load	kg	50				
NTEP Approval ⁵	Number		NTEP 08-090				
	Class		III L M				
	nmax		10,000				
	Vmin	kg (lb)	1.8 (4.0)		2.2 (4.9)		
	Min. Dead Load	kg (lb)	50 (110)				

¹ R.C. = Rated or full capacity as specified on the data plate.

² Certified according to approval agency or notified body (third party).

³ The combined error of span, linearity error, and hysteresis will not exceed 80% of the error limits for OIML R60.

⁴ TC of span, creep, and creep return for HB44 typically meet OIML C3 performance.

⁵ See certificate for complete information.

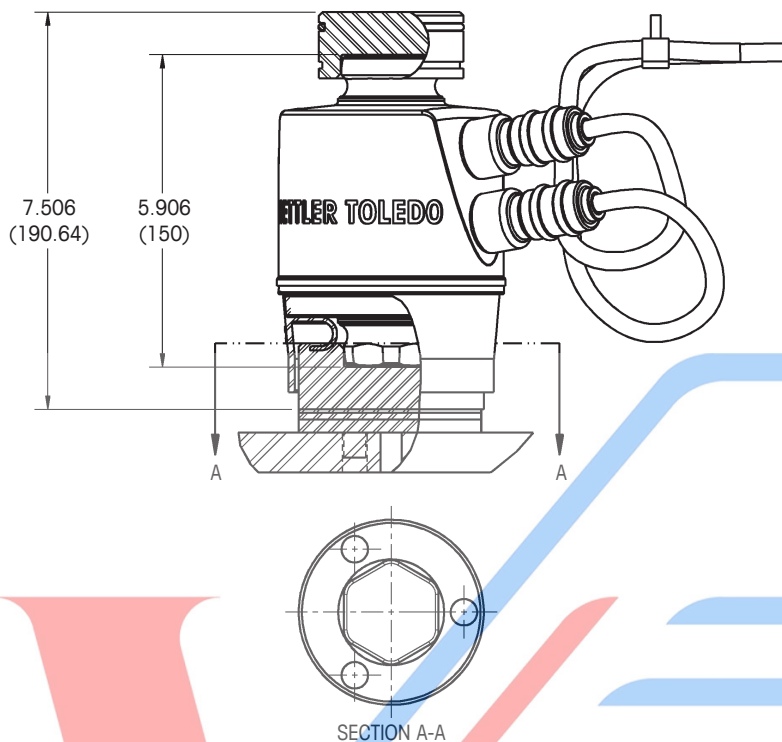
POWERCELL™ PDX™ Load Cell Specifications

Parameter		Unit of Measure	Specification
Hazardous Area			
ATEX	Number		KEMA 09 ATEX 0063
	Rating		II 3 G Ex nA II T6
	Rating		II 3 D Ex tD A22 IP6X T 85°C
			U _{max} = 26.4V, I _{max} = 2A
			P _{max} = 0.5W / Load Cell
IECEx	Ta		-40°C < Ta < +55°C
	Number		IECEx KEM 09.0028
	Rating		Ex nA II T6
	Rating		Ex tD A22 IP6X T 85°C
			U _{max} = 26.4V, I _{max} = 2A
Electrical			P _{max} = 0.5W / Load Cell
	Ta		-40°C < Ta < +55°C
	Supply Voltage Regulated in the Load Cell	Typical	V DC 12 or 24 (external supply)
		Minimum/Maximum	V DC 12/24
	Lightning Protection*	Max. Tested (IEEE4-95)	A > 80,000
Mechanical	Insulation Resistance @ 50VDC	MΩ	≥ 2000
	Breakdown Voltage	V AC	≥ 500
Material	Spring Element		17-4 PH Stainless Steel (magnetic)
	Enclosure		Electropolished 304 Stainless Steel
	Low-Profile Receivers		17-4 PH Forged and Machined Stainless Steel, Hardened
	Anti-Rotation		6-Point Hexagonal
	Cable Entry Fittings		Stainless Steel, Laser Welded
	Cable, Load Cell		Braided Stainless Steel, Oil Resistant, 9mm, 5 Conductors, Internal/External Shielded with Drain Wires
	Cable, Home Run		Braided Stainless Steel, Oil Resistant, 14mm, 4 Conductors, Internal/External Shielded with Drain Wires
	Connectors		Quick-Connect, Stainless Steel, Glass-to-Metal
Protection	Type		Hermetic (submersible)
	IP Rating		IP68 (1m - 7 days submersion), IP69K test reports on file
	NEMA Rating		NEMA 6P (submersible)
Load Limit	Safe	%R.C.	200
	Ultimate	%R.C.	300
Safe Dynamic Load		%R.C.	70
Direction of Loading			Compression
Deflection @ R.C., typical		mm (in)	0.76 (0.0029)
Shipping Weight, nominal		kg (lb)	3.0 (6.6) 3.2 (7.0)

* Tested by Elektro Swiss AG (40,000A) and Lightning Technologies, Inc. (80,000A).

024.2219.3579 - 0987.812.105

POWERCELL™ PDX™ Load Cell Dimensions inch (mm)



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CÂN ĐIỆN TỬ VIỆT PHÁT

024.2219 3579 0907 812.105

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For more information