

Load Cells



Virtual
Measurements
& Control

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Model Type	VLC-100 / VLC-100S Shearbeam	VLC-100T Shearbeam (Temperature)	VLC-100H / VLC-100SH Shearbeam Hermetically Sealed	VLC-101 Double Ended Shearbeam	VLC-102 Double Ended Shearbeam	VLC-106 Cantilever
Capacity	100, 250, 500 lb 1, 2, 2.5, 3, 4, 5, 10, 20 klb	2, 2.5, 3, 4, 5, 10, 20 klb 2.5, 3, 5, 10 t	1, 2, 2.5, 3, 5, 10 klb	1, 2.5, 5, 10, 15, 20, 25, 50, 75 klb	25, 50, 75, 100, 125, 150, 200 klb	10, 20, 30, 50, 100, 200 kg
Specifications						
Rated Output	3mV/V ± 0.25%	3mV/V ± 0.25%	2mV/V ± 0.25%	3mV/V ± 0.25%	3mV/V ± 0.25%	2mV/V ± 0.1%
Non-linearity	0.03% F.S.	0.01% F.S.	0.03% F.S.	0.03% F.S.	0.03% F.S.	0.03% F.S.
Hysteresis	0.03% F.S. (VLC-100) 0.05% F.S. (VLC-100S)	0.01% F.S.	0.03% F.S. (VLC-100H) 0.05% F.S. (VLC-100SH)	0.03% F.S.	0.03% F.S.	0.03% F.S.
Non-repeatability	0.02% F.S.	0.05% F.S.	0.02% F.S.	0.02% F.S.	0.02% F.S.	0.02% F.S.
Creep in 30 mins	0.03% F.S.	0.01% F.S.	0.03% F.S.	0.03% F.S.	0.03% F.S.	0.03% F.S.
Temperature effect span	15PPM /°C of Applied Load	100PPM /°C of Applied Load	15PPM /°C of Applied Load	15PPM /°C of Applied Load	15PPM /°C of Applied Load	15PPM /°C of Applied Load
Temperature effect zero	26PPM /°C of Applied Load	100PPM /°C of Applied Load	26PPM /°C of Applied Load	26PPM /°C of Applied Load	26PPM /°C of Applied Load	26PPM /°C of Applied Load
Compensated temperature range	-10°C ~ 40°C	0°C ~ 200°C	-10°C ~ 40°C	-10°C ~ 40°C	-10°C ~ 40°C	-10°C ~ 40°C
Operating temperature range	-40°C ~ 65°C	-40°C ~ 25°C	-40°C ~ 65°C	-40°C ~ 65°C	-40°C ~ 65°C	-40°C ~ 65°C
Zero balance	± 1% F.S.	± 1% F.S.	± 1% F.S.	± 1% F.S.	± 1% F.S.	± 1% F.S.
Input resistance	385 ± 15Ω	380 ± 30Ω	385 ± 15Ω	770 ± 40Ω	385 ± 15Ω	385 ± 15Ω
Output resistance	350 ± 3Ω	350 ± 3Ω	350 ± 3Ω	700 ± 5Ω	700 ± 5Ω	350 ± 3Ω
Safe overload	150% F.S.	150% F.S.	150% F.S.	150% F.S.	150% F.S.	150% F.S.
Ultimate overload	300% F.S.	300% F.S.	300% F.S.	300% F.S.	300% F.S.	300% F.S.
Excitation voltage	10VAC/DC	10VAC/DC	10VAC/DC	10VAC/DC	10VAC/DC	10VAC/DC
Maximum excitation voltage	15VAC/DC	15VAC/DC	15VAC/DC	30VAC/DC	30VAC/DC	15VAC/DC
Insulation resistance	≥ 5000MΩ (50V DC)	≥ 5000MΩ (50V DC)	≥ 5000MΩ (50V DC)	≥ 5000MΩ (50V DC)	≥ 5000MΩ (50V DC)	≥ 5000MΩ (50V DC)
Environmental protection	IP67	IP67	IP67	IP67	IP67	IP67
Material	Alloy Tool Steel (VLC-100) Stainless Steel (VLC-100S)	Alloy Tool Steel	Alloy Tool Steel (VLC-100H) Stainless Steel (VLC-100SH)	Alloy Tool Steel	Alloy Tool Steel	Alloy Tool Steel
Applications						
	Low profile platform scales Pallet scales Process weighing Tank weighing Hopper weighing	Low profile platform scales Pallet scales Process weighing Tank weighing Hopper weighing	Low profile platform scales Pallet scales Process weighing Tank weighing Hopper weighing	Tank, bin, silo Batching, blending, Mixing system	Tank, bin, silo Batching, blending, Mixing system	Platform scales Tank weighing Hopper weighing
Cable	4 Color Shield Cable 20 FT (6M)	4 Color Shield Cable 20 FT (6M)	4 Color Shield Cable 20 FT (6M)	4 Color Shield Cable 30 FT (9M)	4 Color Shield Cable 30 FT (9M)	4 Color Shield Cable 20 FT (6M)
Wiring						
RED	+ INPUT	+ INPUT	+ INPUT	+ INPUT	+ INPUT	+ INPUT
BLACK	- INPUT	- INPUT	- INPUT	- INPUT	- INPUT	- INPUT
GREEN	+ OUTPUT	+ OUTPUT	+ OUTPUT	+ OUTPUT	+ OUTPUT	+ OUTPUT
WHITE	- OUTPUT	- OUTPUT	- OUTPUT	- OUTPUT	- OUTPUT	- OUTPUT
BLUE						
YELLOW						
Recommended maximum platform size						

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Model Type	VLC-110 / VLC-110S	VLC-120	VLC-121	VLC-123	VLC-125	VLC-131
Capacity	50, 100, 150, 250, 500 lb 1, 1.5, 2, 2.5, 3, 5, 10, 15, 20 klb	5, 10, 25, 50, 100 klb	10, 15, 20, 25, 30, 40, 50 t	15, 20, 25, 30 t	24 t	5, 10, 15, 20, 30, 50, 100, 150, 200 lb
Specifications						
Rated Output	2.95~3.05mV/V	4mV/V ± 0.25%	2mV/V ± 0.1%	2mV/V ± 0.1%	1.8mV/V ± 0.02	2mV/V ± 10%
Non-linearity	0.03% F.S.	0.03% F.S.	0.03% F.S.	0.03% F.S.	0.02% F.S.	0.03% F.S.
Hysteresis	0.03% F.S. (VLC-110) 0.05% F.S. (VLC-110S)	0.05% F.S.	0.03% F.S.	0.03% F.S.	0.02% F.S.	0.03% F.S.
Non-repeatability	0.02% F.S.	0.02% F.S.	0.02% F.S.	0.02% F.S.	0.01% F.S.	0.02% F.S.
Creep in 30 mins	0.03% F.S.	0.05% F.S.	0.03% F.S.	0.03% F.S.	0.02% F.S.	0.03% F.S.
Temperature effect span	15PPM /°C of Applied Load	15PPM /°C of Applied Load	15PPM /°C of Applied Load	15PPM /°C of Applied Load	15PPM /°C of Applied Load	15PPM /°C of Applied Load
Temperature effect zero	26PPM /°C of Applied Load	26PPM /°C of Applied Load	26PPM /°C of Applied Load	26PPM /°C of Applied Load	26PPM /°C of Applied Load	26PPM /°C of Applied Load
Compensated temperature range	-10°C ~ 40°C	-10°C ~ 40°C	-10°C ~ 40°C	-10°C ~ 40°C	-10°C ~ 40°C	-10°C ~ 40°C
Operating temperature range	-40°C ~ 65°C	-40°C ~ 65°C	-40°C ~ 65°C	-40°C ~ 65°C	-40°C ~ 65°C	-40°C ~ 65°C
Zero balance	± 1% F.S.	± 1% F.S.	± 1% F.S.	± 1% F.S.	± 1% F.S.	± 1% F.S.
Input resistance	385 ± 15Ω	385 ± 15Ω	770 ± 40Ω	385 ± 15Ω	350 ± 5Ω	400 ± 15Ω
Output resistance	350 ± 3Ω	350 ± 3Ω	700 ± 5Ω	350 ± 3Ω	350 ± 5Ω	350 ± 3Ω
Safe overload	150% F.S.	150% F.S.	150% F.S.	150% F.S.	150% F.S.	150% F.S.
Ultimate overload	300% F.S.	250% F.S.	300% F.S.	300% F.S.	300% F.S.	300% F.S.
Excitation voltage	10VAC/DC	10VAC/DC	10VAC/DC	10VAC/DC	10VAC/DC	10VAC/DC
Maximum excitation voltage	15VAC/DC	15VAC/DC	30VAC/DC	20VAC/DC	20VAC/DC	15VAC/DC
Insulation resistance	≥ 5000MΩ (50V DC)	≥ 5000MΩ (50V DC)	≥ 5000MΩ (50V DC)	≥ 2000MΩ	≥ 2000MΩ	≥ 5000MΩ (50V DC)
Environmental protection	IP67	IP67	IP67	IP67	IP67	IP67
Material	Alloy Tool Steel (VLC-110) Stainless Steel (VLC-110S)	Alloy Tool Steel	Alloy Tool Steel	Stainless Steel	Stainless Steel	Aluminum
Applications						
	Mechanical scale conversion Tank, bin and hopper weighing Truck scale conversion Tension/compression measurement	Truck scale Tank weighing Hopper weighing	Truck scale Tank weighing Hopper weighing	Truck scale Tank weighing Hopper weighing	Truck scale Tank weighing Hopper weighing	Single-point platform scales Belt conveyor Bench scales Check Weighing Hopper scales
Cable	4 Color Shield Cable 20 FT (6M)	4 Color Shield Cable 50 FT (15M)	4 Color Shield Cable 20 FT (6M)	4 Color Shield Cable	6 Color Shield Cable	4 Color Shield Cable 5 FT (1.5M)
Wiring						
RED	+ INPUT	+ INPUT	+ INPUT	BLUE GREEN - + INPUT	+ INPUT	+ INPUT
BLACK	- INPUT	- INPUT	- INPUT	GREY BLACK - - INPUT	- INPUT	- INPUT
GREEN	+ OUTPUT	+ OUTPUT	+ OUTPUT	WHITE - + OUTPUT	+ SIGNAL	+ OUTPUT
WHITE	- OUTPUT	- OUTPUT	- OUTPUT	RED - - OUTPUT	- SIGNAL	- OUTPUT
BLUE					+ OUTPUT	
YELLOW					- OUTPUT	
Recommended maximum platform size						300mm x 300mm

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Model	VLC-132	VLC-133	VLC-134	VLC-137S	VLC-138
Type	Single-point	Single-Point	Single-Point	Single-point	Single-point
Capacity	60, 100, 250, 500 kg	100, 250, 500, 1000 kg	6, 10, 20, 50, 60 kg	60, 100, 200, 300, 500 kg	50, 100, 150, 300, 500 kg 1000, 1200 kg
Specifications					
Rated Output	2mV/V ± 10%	2mV/V ± 10%	2mV/V ± 10%	2mV/V ± 10%	2mV/V ± 10%
Non-linearity	0.03% F.S.	0.03% F.S.	0.03% F.S.	0.03% F.S.	0.03% F.S.
Hysteresis	0.03% F.S.	0.03% F.S.	0.03% F.S.	0.03% F.S.	0.03% F.S.
Non-repeatability	0.02% F.S.	0.02% F.S.	0.02% F.S.	0.02% F.S.	0.02% F.S.
Creep in 30 mins	0.03% F.S.	0.03% F.S.	0.03% F.S.	0.03% F.S.	0.03% F.S.
Temperature effect span	15PPM /°C of Applied Load	15PPM /°C of Applied Load	15PPM /°C of Applied Load	15PPM /°C of Applied Load	15PPM /°C of Applied Load
Temperature effect zero	26PPM /°C of Applied Load	26PPM /°C of Applied Load	26PPM /°C of Applied Load	26PPM /°C of Applied Load	26PPM /°C of Applied Load
Compensated temperature range	-10°C ~ 40°C	-10°C ~ 40°C	-10°C ~ 40°C	-10°C ~ 40°C	-10°C ~ 40°C
Operating temperature range	-40°C ~ 65°C	-40°C ~ 65°C	-40°C ~ 65°C	-40°C ~ 65°C	-40°C ~ 65°C
Zero balance	± 1% F.S.	± 1% F.S.	± 1% F.S.	± 1% F.S.	± 1% F.S.
Input resistance	400 ± 15Ω	400 ± 15Ω	400 ± 15Ω	400 ± 20Ω	400 ± 15Ω
Output resistance	350 ± 3Ω	350 ± 3Ω	350 ± 3Ω	350 ± 3Ω	350 ± 3Ω
Safe overload	150% F.S.	150% F.S.	150% F.S.	150% F.S.	150% F.S.
Ultimate overload	300% F.S.	300% F.S.	300% F.S.	300% F.S.	300% F.S.
Excitation voltage	10VAC/DC	10VAC/DC	10VAC/DC	10VAC/DC	10VAC/DC
Maximum excitation voltage	15VAC/DC	15VAC/DC	15VAC/DC	15VAC/DC	15VAC/DC
Insulation resistance	≥ 5000MΩ (50V DC)	≥ 5000MΩ (50V DC)	≥ 5000MΩ (50V DC)	≥ 5000MΩ (50V DC)	≥ 5000MΩ (50V DC)
Environmental protection	IP67	IP67	IP67	IP67	IP67
Material	Aluminum	Aluminum	Aluminum	Stainless Steel	Stainless Steel
Applications					
	Single-point platform scales Belt conveyor Bench scales Check Weighing Hopper scales	Single-point platform scales Belt conveyor Bench scales Check Weighing Hopper scales	Single-point platform scales Belt conveyor Bench scales Checkweighing Hopper scales	Single-point platform scales Belt conveyor Bench scales Checkweighing Hopper scales	Single-point platform scales Belt conveyor Bench scales Checkweighing Hopper scales
Cable	4 Color Shield Cable 9 FT (2.7M)	4 Color Shield Cable 8 FT (2.5M)	4 Color Shield Cable 13 FT (4M)	4 Color Shield Cable 20 FT (6M)	4 Color Shield Cable 20 FT (6M)
Wiring					
RED	+ INPUT	+ INPUT	+ INPUT	+ INPUT	+ INPUT
BLACK	- INPUT	- INPUT	- INPUT	- INPUT	- INPUT
GREEN	+ OUTPUT	+ OUTPUT	+ OUTPUT	+ OUTPUT	+ OUTPUT
WHITE	- OUTPUT	- OUTPUT	- OUTPUT	- OUTPUT	- OUTPUT
BLUE					
YELLOW					
Recommended maximum platform size	400mm x 600mm	750mm x 750mm	400mm x 400mm	600mm x 450mm	600mm x 800mm (50-500kg) 800mm x 1000mm (1000-1200kg)