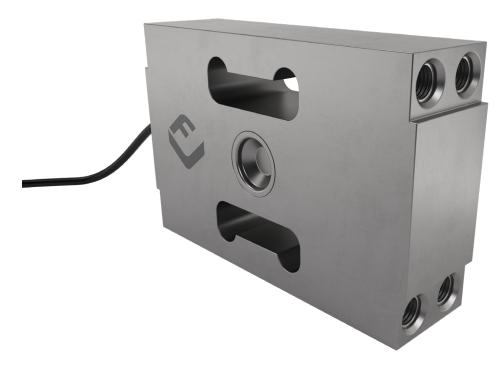
PC3H welded single point load cell



product description

The PC3H is designed for front-end bin lifting systems on waste collection vehicles. Its high capacity of 5t means that one load cell per lifting fork can be used instead of the normal arrangement of two.

Virtually shock proof, the PC3H has proven to be the most rugged single-point load cell available to designers and manufacturers of on-board weighing systems. It's fully hermetically sealed and constructed from the toughest stainless steel.

Alternative load cell sizes and bolt-hole configurations are available in the Flintec bin-lift load cell range – see our PC2H, PC5H, PC6H and PC7H single point load cells.

applications

Front end (FEL) bin lifting systems for waste collection vehicles (RCV's).

accessories

Compatible range of electronics

key features

Capacity of 5,000kg

Stainless steel construction with a bead-blasted surface

Hermetically sealed to IP68/IP69K

Very rugged construction

Off-centre load adjusted

High accuracy

approvals

OIML approval to C2.5 (Y=12,000)

NTEP approved to 2,500 intervals, Class III, single cell applications













specifications

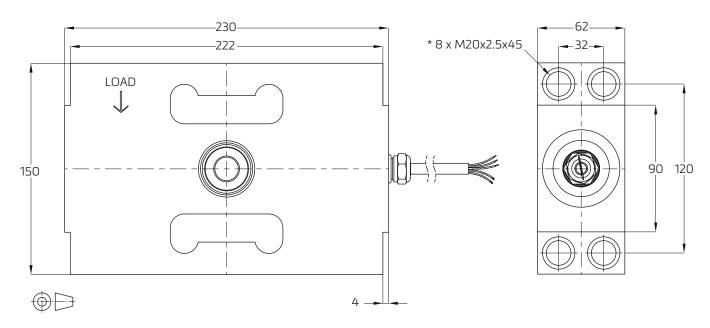
Minimum dead load kg	Maximum capacity (E _{max})	kg	5,000		
Accuracy class according to OIML R60 - GP C1 C2.5 Maximum number of verification intervals (n ₁ c) - - 1,000 2,500 Minimum load cell verification intervals (n ₁ c) - - E _{max} /12,000 E _{max} /12,000 Temperature effect an minimum dead load output (TC _n) % R0/10°C ±0.040 ±0.016 ±0.012 Temperature effect on sensitivity (TC _{no}) % R0/10°C ±0.0500 ±0.030 ±0.024 Combined error % R0 ±0.0500 ±0.030 ±0.024 Non-linearity % R0 ±0.0500 ±0.030 ±0.020 Hysteresis % R0 ±0.0500 ±0.030 ±0.020 Hysteresis % R0 ±0.0500 ±0.049 ±0.020 Cree perror (30minutes)/ DR % R0 ±0.0500 ±0.049 ±0.020 Roted Output (R0) mV/V 0.90 ± 0.0% ±0.020 Section in mV/V/Ohm % R0 ±0.0500 ±0.5 Lexitation Voltage V 5.15 Insulation Resistance (R ₁ c) 0		_			
Moximum number of verification intervals (n,c) - 1,000 2,500 Minimum load cell verification interval (ν _{min}) - - E _{mon} /12,000 E _{mon} /12,000 Temperature effect an minimum dead load output (TC _o) % RO/10°C ±0.040 ±0.016 ±0.012 Temperature effect an sensitivity (TC _{wo}) % RO/10°C ±0.0500 ±0.030 ±0.024 Combined error % RO ±0.0500 ±0.030 ±0.024 Non- linearity % RO ±0.0500 ±0.030 ±0.020 Pysteresis % RO ±0.0500 ±0.030 ±0.020 Pysteresis % RO ±0.0500 ±0.049 ±0.020 Creep error (30minutes)/ DR % RO ±0.0500 ±0.049 ±0.020 Rated Output (RO) mV/V 0.90 ±0.03 ±0.020 Rated Output (RO) mV/V 0.90 ±0.03 ±0.020 Excitation Voltage V 5.15 Input Resistance (R _{cc}) 0 1.100 ±50 Output Resistance (R _{cc}) Ω 1.1000 ±50 1.000 ±50 1.000 ±50					
Minimum load cell verification interval (Vniin) - Ensir/12,000 Erwir/12,000 Temperature effect on minimum dead load output (TC _a) % RO/10°C ±0.040 ±0.016 ±0.012 Temperature effect on sensitivity (TC _{bo}) % RO/10°C ±0.0500 ±0.030 ±0.024 Combined error % RO ±0.0500 ±0.030 ±0.020 Non- linearity % RO ±0.0500 ±0.030 ±0.020 Hysteresis % RO ±0.0500 ±0.030 ±0.020 Creep error (30minutes)/ DR % RO ±0.0500 ±0.049 ±0.020 Rated Output (RO) mV/V 0.90 ± 0.1%	-	-	GP		
Temperature effect on minimum dead load output (TC _n) % RO/10°C ±0.040 ±0.016 ±0.012 Temperature effect on sensitivity (TC _{nn}) % RO/10°C ±0.0500 ±0.030 ±0.014 Combined error % RO ±0.0500 ±0.030 ±0.020 Non- linearity % RO ±0.0500 ±0.030 ±0.020 Hysteresis % RO ±0.0500 ±0.049 ±0.020 Creep error (30minutes)/ DR % RO ±0.0500 ±0.049 ±0.020 Reted Output (RO) mV/V 0.90 ± 0.03 ±0.020 Reted Output (RO) mV 5.15 1.00 Input Resistance (Rour) Q 1.100 ± 50 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	Maximum number of verification intervals (n _{LC})	-	-	1,000	2,500
output (TC₀) %RC/10°C ±0.040 ±0.016 ±0.012 Temperature effect on sensitivity (TC₅n) %RO/10°C ±0.0500 ±0.030 ±0.024 Non- linearity %RO ±0.0500 ±0.030 ±0.020 Hysteresis %RO ±0.0500 ±0.030 ±0.020 Creep error (30minutes)/ DR %RO ±0.0500 ±0.049 ±0.020 Reted Output (RO) mV/V 0.90 ± 0.1% ±0.020 Calibration in mV/V/Ohm %RO ±0.050 ±0.049 ±0.020 Reted Output (RO) mV/V 0.90 ± 0.1% ±0.020 Calibration in mV/V/Ohm %RO ± ± 0.05 ±0.05 Zero Balonce %RO < ± 5		-	-	E _{max} /12,000	E _{max} /12,000
Combined error % RO ±0.0500 ±0.030 ±0.024 Non- linearity % RO ±0.0500 ±0.030 ±0.020 Hysteresis % RO ±0.0500 ±0.030 ±0.020 Creep error (30minutes)/ DR % RO ±0.0500 ±0.049 ±0.020 Rated Output (RO) mW/V 0.90 ± 0.1%	·	% RO/10°C	±0.040	±0.016	±0.012
Non-linearity % RO ±0.0500 ±0.030 ±0.020 Hysteresis % RO ±0.0500 ±0.049 ±0.020 Creep error (30minutes)/ DR % RO ±0.0500 ±0.049 ±0.020 Rated Output (RO) mV/V 0.99 ± 0.1% • Calibration in mV/V/Ohm % ≤± 0.05 • Zero Bolance % RO • ± 5 Excitation Voltage V 515 • Input Resistance (R _{ic}) Ω 1,100 ±50 • Output Resistance (@100 v DC) MΩ >5,000 • Safe load limit (E _{im}) % E _{max} 200 • Ultimate load % E _{max} 100 • Safe side load limit % E _{max} 100 • Maximum off centre loading effect % RO/mm ± 0.00006 • Maximum off centre distance at maximum capacity mm 500 • • • • • • • • • • • • •	Temperature effect on sensitivity (TC _{RO})	% RO/10°C	±0.0500	±0.030	±0.014
Hysteresis	Combined error	% RO	±0.0500	±0.030	±0.024
Creep error (30minutes)/ DR % RO ±0.0500 ±0.049 ±0.020 Rated Output (RO) mV/V 0.90 ± 0.1% Colibration in mW/V/Ohm \$ ±0.05 \$ ±0.05 \$ € ±0.00 \$ € ±0.00 </td <td>Non- linearity</td> <td>% RO</td> <td>±0.0500</td> <td>±0.030</td> <td>±0.020</td>	Non- linearity	% RO	±0.0500	±0.030	±0.020
Rated Output (RO) mV/V 0.90 ± 0.1% Calibration in mV/V/Ohm % ≤± 0.05 Zero Balance % RO <± 5	Hysteresis	% RO	±0.0500	±0.030	±0.020
Calibration in mV/V/Ohm % ≤± 0.05 Zero Balance % RO <± 5	Creep error (30minutes)/ DR	% RO	±0.0500	±0.049	±0.020
Zero Balance % RO <± 5 Excitation Voltage V 515 Input Resistance (R _{LC}) Ω 1,100 ±50 Output Resistance (@0100 v DC) MΩ 1,000 ±50 Insulation Resistance (@100 v DC) MΩ >5,000 Safe load limit (E _{Im}) % E _{mox} 200 Ultimate load % E _{mox} 400 Safe side load limit % E _{mox} 100 Maximum off centre loading effect % RO/mm ± 0.00006 Maximum off centre distance at maximum capacity mm 500 Compensated temperature range °C -10 +40 Operating temperature range °C -40 +80 Load cell material - Stainless steel 17-4PH (1,4548) Sealing - Complete hermetic sealing; cable entry sealed by glass to metal header Humidity class - CH Protection According to EN60 529 - IP68 (up to 2m water depth) / IP69K	Rated Output (RO)	mV/V	0.90 ± 0.1%		
Excitation Voltage V 515 Input Resistance (R _{tc}) Ω 1,100 ±50 Output Resistance (@100 v DC) MΩ 1,000 ±50 Insulation Resistance (@100 v DC) MΩ >5,000 Safe load limit (E _{lim}) % E _{max} 200 Ultimate load % E _{max} 400 Safe side load limit % E _{max} 100 Maximum off centre loading effect % RO/mm ± 0.00006 Maximum off centre distance at maximum capacity mm 500 Compensated temperature range °C -10 +40 Operating temperature range °C -40 +80 Load cell material - Stainless steel 17-4PH (1.4548) Sealing - Complete hermetic sealing; cable entry sealed by glass to metal header Humidity class - CH Protection According to EN60 529 - IP68 (up to 2m water depth) / IP69K	Calibration in mV/V/Ohm	%	≤± 0.05		
Input Resistance (R _{LC}) Output Resistance (R _{OUT}) Ω 1,000 ±50 Insulation Resistance (@100 v DC) MΩ >5,000 Safe load limit (E _{lim}) % E _{max} 200 Ultimate load % E _{max} 400 Safe side load limit % E _{max} 100 Maximum off centre loading effect % RO/mm 40,00006 Maximum off centre distance at maximum capacity Compensated temperature range °C -10 +40 Operating temperature range °C -40 +80 Load cell material Sealing Complete hermetic sealing; cable entry sealed by gloss to metal header Humidity class - Complete hermetic sealing; cable entry sealed by gloss to metal header Humidity class - Protection According to EN60 529 - IP68 (up to 2m water depth) / IP69K	Zero Balance	% RO	<±5		
Output Resistance (Rour) Ω 1,000 ±50 Insulation Resistance (@100v DC) MΩ >5,000 Safe load limit (Elim) % Emax 200 Ultimate load % Emax 400 Safe side load limit % Emax 100 Maximum off centre loading effect % RO/mm ± 0.00006 Maximum off centre distance at maximum capacity mm 500 Compensated temperature range °C -10 +40 Operating temperature range °C -40 +80 Load cell material - Stainless steel 17-4PH (1.4548) Sealing - Complete hermetic sealing; cable entry sealed by glass to metal header Humidity class - Ch Protection According to EN60 529 - IP68 (up to 2m water depth) / IP69K	Excitation Voltage	V	515		
Insulation Resistance (@100 v DC) MΩ Safe load limit (Elim) % Emox 200 Ultimate load % Emox 400 Safe side load limit % Emox 100 Maximum off centre loading effect % RO/mm 40.00006 Maximum off centre distance at maximum capacity Compensated temperature range °C -10 +40 Operating temperature range °C -40 +80 Load cell material Sealing - Complete hermetic sealing; cable entry sealed by glass to metal header Humidity class - IP68 (up to 2m water depth) / IP69K	Input Resistance (R _{LC})	Ω	1,100 ±50		
Safe load limit (E _{lim}) W E _{max} 200 Ultimate load W E _{max} 400 Safe side load limit W E _{max} 100 Maximum off centre loading effect W RO/mm Maximum off centre distance at maximum capacity Compensated temperature range C -10 +40 Operating temperature range C -40 +80 Load cell material - Stainless steel 17-4PH (1.4548) Sealing Humidity class - Complete hermetic sealing; cable entry sealed by glass to metal header Humidity class - IP68 (up to 2m water depth) / IP69K	Output Resistance (R _{OUT})	Ω	1,000 ±50		
Ultimate load % E _{max} 400 Safe side load limit % E _{max} 100 Maximum off centre loading effect % RO/mm ± 0.00006 Maximum off centre distance at maximum capacity mm 500 Compensated temperature range °C -10 +40 Operating temperature range °C -40 +80 Load cell material - Stainless steel 17-4PH (1.4548) Sealing - Complete hermetic sealing; cable entry sealed by glass to metal header Humidity class - CH Protection According to EN60 529 - IP68 (up to 2m water depth) / IP69K	Insulation Resistance (@100v DC)	ΜΩ	>5,000		
Safe side load limit **Nex*** Maximum off centre loading effect **Nex*** RO/mm **D.00006 **Maximum off centre distance at maximum capacity **Compensated temperature range **Complete hermetic sealing; cable entry sealed by glass to metal header **Humidity class **Complete hermetic sealing; cable entry sealed by glass to metal header **Humidity class **Definition of the complete hermetic sealing and the complete header **Complete hermetic sealing and the complete header **Humidity class **Definition of the complete hermetic sealing and the complete header **Humidity class **Definition of the complete hermetic sealing and the complete header **Definition of the complete hermetic sealing and the complete header **Humidity class **Definition of the complete hermetic sealing and the complete header **Definition of the complete hermetic sealing and the complete header **Humidity class **Definition of the complete hermetic sealing and the complete header **Definition of the complete hermetic sealing and the complete header **Definition of the complete hermetic sealing and the complete hermetic sealing	Safe load limit (E _{lim})	% E _{max}	200		
Maximum off centre loading effect % RO/mm ± 0.00006 Maximum off centre distance at maximum capacity mm 500 Compensated temperature range °C -10 +40 Operating temperature range °C -40 +80 Load cell material - Stainless steel 17-4PH (1.4548) Sealing - Complete hermetic sealing; cable entry sealed by glass to metal header Humidity class - CH Protection According to EN60 529 - IP68 (up to 2m water depth) / IP69K	Ultimate load	% E _{max}	400		
Maximum off centre distance at maximum capacity Compensated temperature range °C -10 +40 Operating temperature range °C -40 +80 Load cell material - Stainless steel 17-4PH (1.4548) Sealing - Complete hermetic sealing; cable entry sealed by glass to metal header Humidity class - CH Protection According to EN60 529 - IP68 (up to 2m water depth) / IP69K	Safe side load limit	% E _{max}	100		
capacity Compensated temperature range °C -10 +40 Operating temperature range °C -40 +80 Load cell material - Stainless steel 17-4PH (1.4548) Sealing - Complete hermetic sealing; cable entry sealed by glass to metal header Humidity class - CH Protection According to EN60 529 - IP68 (up to 2m water depth) / IP69K	Maximum off centre loading effect	% RO/mm	± 0.00006		
Operating temperature range °C -40 +80 Load cell material - Stainless steel 17-4PH (1.4548) Sealing - Complete hermetic sealing; cable entry sealed by glass to metal header Humidity class - CH Protection According to EN60 529 - IP68 (up to 2m water depth) / IP69K		mm	500		
Load cell material - Stainless steel 17-4PH (1.4548) Sealing - Complete hermetic sealing; cable entry sealed by glass to metal header Humidity class - CH Protection According to EN60 529 - IP68 (up to 2m water depth) / IP69K	Compensated temperature range	°C	-10 +40		
Sealing - Complete hermetic sealing; cable entry sealed by glass to metal header Humidity class - CH Protection According to EN60 529 - IP68 (up to 2m water depth) / IP69K	Operating temperature range	°C	-40 +80		
Humidity class - CH Protection According to EN60 529 - IP68 (up to 2m water depth) / IP69K	Load cell material	-	Stainless steel 17-4PH (1.4548)		
Protection According to EN60 529 - IP68 (up to 2m water depth) / IP69K	Sealing	-			
	Humidity class	-	СН		
Weight kg 13.5 (approx)	Protection According to EN60 529	-	IP68 (up to 2m water depth) / IP69K		
	Weight	kg	13.5 (approx)		

The limits for Non Linearity, Hysteresis and TC_{RO} are typical values.

The sum of Non Linearity, Hysteresis and TC_{RO} meet the requirements according to OIML R60 with $p_{LC} = 0.7$



product dimensions (mm)



^{*}Mounting bolts are M20 with 2.5mm pitch and 45mm deep. (x8)

We recommend a bolt class of 10.9 torqued to 570Nm. A bolt class of 12.9 torqued to 670Nm is recommended for high dynamic loads. (Values assumes oiled thread.)

wiring

The load cell is provided with a shielded, 4 conductor cable (AWG 20)

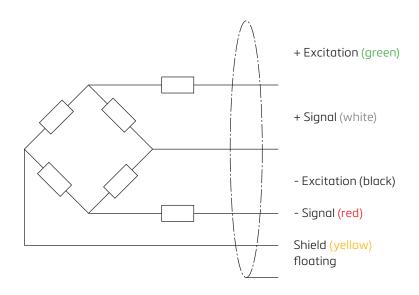
Cable jacket: thermoplastic rubber

Cable length: 5 m

Cable diameter: 7.6 mm

The shield is floating

* Optional grounded shield at cable gland



Specifications and dimensions are subject to change without notice.