FLINTEC





Product Description

The type PC2H is a stainless steel high capacity single point load cell with complete hermetic sealing. It is a perfect fit for use in harsh industrial environments.

Application

 On-board vehicle weighing, floor scales, conveyor scales, hopper and tank weighing systems

Key Features

- Capacity of 2 000 kg
- Stainless steel construction
- Environmental Protection IP68 with complete hermetic sealing
- Side mount, rugged design with low sensitivity to moment
- Maximum platform size up to 1 200 x 1 200 mm
- High input resistance

Approvals

- OIML approval to C3 (Y = 10000)
- ATEX hazardous area approval for Zone 0, 1, 2, 20, 21 and 22

Option

■ Y = 20 000 for C3

Packed Weight

8.3 kg

Available Accessories

Compatible range of electronics

∽ FLINTEC

Maximum capacity(Emax)kg2000Accuracy class according to OIML R60(GP)C3Maximum number of verification intervals(n_LC)n.a.3 000Minimum load cell verification interval(Vmin)n.a.Emax/10 000Temperature effect on minimum dead load output(TCo)%+R0/10°C \pm 0.0400 \pm 0.0140Temperature effect on sensitivity(TCn)%+R0/10°C \pm 0.0200 \pm 0.0100Combined error%+R0 \pm 0.0400 \pm 0.0200Non-linearity%+R0 \pm 0.0400 \pm 0.0166Hysteresis%+R0 \pm 0.0400 \pm 0.0166Creep error (30 minutes) / DR%+R0 / \pm 0.0400 \pm 0.0166Min. load cell verification interval(vmin opt)n.a.Imp. effect on min. dead load output(TCo opt)%+R0/10°Cn.a.Ated Output(R0)mV/V $2 \pm 5\%$ Zero balance%+R0 ± 5 Excitation voltageV 515 Input resistance(Rout) Ω Output resistance (100 V DC)MΩ ≥ 5 000Safe iside load%+Emax300Safe side load%+Emax300Safe side load%+R0/mm \pm 0.00002Maximum off centre loading effect%+R0/mm \pm 0.00002Maximum off centre loading eff	Specifications				
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Minimum load cell verification interval(Vmin)n.a.Emax/10 000Temperature effect on minimum dead load output(TCo)%+R0/10°C \pm 0.0400 \pm 0.0140Temperature effect on sensitivity(TCo)%+R0/10°C \pm 0.0200 \pm 0.0100Combined error%+R0 \pm 0.0500 \pm 0.0200Non-linearity%+R0 \pm 0.0400 \pm 0.0166Pysteresis%+R0 \pm 0.0400 \pm 0.0166Creep error (30 minutes) / DR%+R0 \pm 0.0400 \pm 0.0166OptionMin. load cell verification interval Temp. effect on min. dead load output(TCo opt)n.a.Emax/20 000Min. load cell verification interval Temp. effect on win. dead load output(TCo opt)%+R0/10°Cn.a. \pm 0.0070Rated Output(R0)mV/V $2 \pm 5\%$ \pm 5Excitation voltageV 515 1100 ± 50 Output resistance(Rour) Ω 960 ± 50 Insulation resistance (100 V DC)MΩ 2 ± 500 Safe load%+R0/mm ± 0.0002 Maximum off centre loading effect%+R0/mm ± 0.00002	Accuracy class according to OIML R60		(GP)	C3	
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Non-linearity %+R0 ± 0.0400 ± 0.0166 Hysteresis %+R0 ± 0.0400 ± 0.0166 Creep error (30 minutes) / DR %+R0 ± 0.0600 ± 0.0166 Option Min. load cell verification interval (Vmin opt) n.a. Emax /20 000 Rated Output (R0) mV/V 2 ± 5% Zero balance %+R0 ± 5 Excitation voltage V 515 Input resistance (Ruc) Ω 960 ± 50 Output resistance (Rout) Ω 960 ± 50 Insulation resistance (100 V DC) MQ ≥ 5 000 Safe load limit Safe load limit (Elim) %+Emax 200 Utimate load Safe load limit %+R0/mm ± 0.00002 Maximum off centre loading effect %+R0/mm ± 0.00002 Maximum off centre distance at maximum capacity mm 175 Compensated temperature range °C -10+40 Operating temperature range °C -40+60) Load cell material stainless steel 17-4 PH (1.4548) Sealing	Temperature effect on sensitivity (TCR) %*R0/10°C	± 0.0200	± 0.0100	
Hysteresis%+R0 ± 0.0400 ± 0.0166 Creep error (30 minutes) / DR%+R0 ± 0.0600 ± 0.0166 OptionMin. load cell verification interval(Vmin opt)n.a.Emax/20 000Temp. effect on min. dead load output(TCo opt)%+R0/10°Cn.a. ± 0.0070 Rated Output(R0)mV/V $2 \pm 5\%$ Zero balance%+R0 ± 5 Excitation voltageV 515 Input resistance(Ruc) Ω 960 ± 50 Output resistance (100 V DC)MQ ≥ 5000 Safe load limit(Elim)%+Emax200Ultimate load%+Emax300Safe load limit%+R0/mm ± 0.00002 Maximum off centre loading effect%+R0/mm ± 0.00002 Maximum off centre loading effect%+R0/mm 175 Compensated temperature range°C $-10+40$ Operating temperature range°C $-40+80$ (ATEX $-40+60$)Load cell materialstainless steel 17-4 PH (1.4548)Sealingcomplete hermetic sealing; cable entry sealed by glass to metal header	Combined error	%*R0	± 0.0500	± 0.0200	
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$\begin{array}{ c c c c c c }\hline \hline Min. load cell verification interval (Vmin opt) & n.a. & E_{max}/20000 \\\hline \hline Temp. effect on min. dead load output (TCo opt) %*R0/10°C & n.a. & \pm 0.0070 \\\hline \hline Rated Output & (RO) & mV/V & 2 \pm 5\% \\\hline \hline Zero balance & %*RO & \pm 5 \\\hline Excitation voltage & V & 515 \\\hline Input resistance & (R_{LC}) & \Omega & 1100 \pm 50 \\\hline Output resistance & (R_{Out}) & \Omega & 960 \pm 50 \\\hline Insulation resistance (100 V DC) & M\Omega & \geq 5000 \\\hline Safe load limit & (Elim) %*Emax & 200 \\\hline Ultimate load & 9%*Emax & 300 \\\hline Safe side load & 9%*Emax & 100 \\\hline Maximum off centre loading effect & %*RO/mm & \pm 0.00002 \\\hline Maximum off centre loading effect & 9%*RO/mm & 175 \\\hline Compensated temperature range & °C & -10+40 \\\hline Operating temperature range & °C & -40+80 (ATEX -40+60) \\\hline Load cell material & complete hermetic sealing; cable entry sealed by glass to metal header \\\hline \end{array}$	Hysteresis	%*R0	± 0.0400	± 0.0166	
OptionTemp. effect on min. dead load output(TC ₀ opt)%*RO/10°Cn.a. ± 0.0070 Rated Output(RO)mV/V $2 \pm 5\%$ Zero balance%*RO ± 5 Excitation voltageV 515 Input resistance(RL _C) Ω 1100 ± 50 Output resistance(Rout) Ω 960 ± 50 Insulation resistance (100 V DC)M Ω ≥ 5000 Safe load limit(Elim)%*Emax200Ultimate load%*Emax300Safe side load%*Emax100Maximum off centre loading effect%*R0/mm ± 0.00002 Maximum off centre distance at maximum capacitymm175Compensated temperature range°C $-10+40$ Operating temperature range°C $-40+80$ (ATEX $-40+60$)Load cell materialstainless steel 17-4 PH (1.4548)Sealingcomplete hermetic sealing; cable entry sealed by glass to metal header	Creep error (30 minutes) / DR	%*R0	± 0.0600	± 0.0166	
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Excitation voltage	V	515		
Insulation resistance (100 V DC)MΩ≥ 5 000Safe load limit(Elim)%*Emax200Ultimate load%*Emax300Safe side load%*Emax100Maximum off centre loading effect%*R0/mm \pm 0.00002Maximum off centre distance at maximum capacitymm175Compensated temperature range°C-10+40Operating temperature range°C-40+80 (ATEX -40+60)Load cell materialStainless steel 17-4 PH (1.4548)Sealingcomplete hermetic sealing; cable entry sealed by glass to metal header	Input resistance (RL	c) Ω	1 100 ± 50		
Safe load limit(Elim)%*Emax200Ultimate load%*Emax300Safe side load%*Emax100Maximum off centre loading effect%*R0/mm± 0.00002Maximum off centre distance at maximum capacitymm175Compensated temperature range°C-10+40Operating temperature range°C-40+80 (ATEX -40+60)Load cell materialStainless steel 17-4 PH (1.4548)Sealingcomplete hermetic sealing; cable entry sealed by glass to metal header	Output resistance (Ron	t) Ω	960 ± 50		
Ultimate load%*Emax300Safe side load%*Emax100Maximum off centre loading effect%*RO/mm± 0.00002Maximum off centre distance at maximum capacitymm175Compensated temperature range°C-10+40Operating temperature range°C-40+80 (ATEX -40+60)Load cell materialstainless steel 17-4 PH (1.4548)Sealingcomplete hermetic sealing; cable entry sealed by glass to metal header	Insulation resistance (100 V DC)	MΩ	≥ 5 000		
Safe side load%*Emax100Maximum off centre loading effect%*R0/mm± 0.00002Maximum off centre distance at maximum capacitymm175Compensated temperature range°C-10+40Operating temperature range°C-40+80 (ATEX -40+60)Load cell materialstainless steel 17-4 PH (1.4548)Sealingcomplete hermetic sealing; cable entry sealed by glass to metal header	Safe load limit (E _{lii}	n) %*Emax	200		
Maximum off centre loading effect %*R0/mm ± 0.00002 Maximum off centre distance at maximum capacity mm 175 Compensated temperature range °C -10+40 Operating temperature range °C -40+80 (ATEX -40+60) Load cell material Stainless steel 17-4 PH (1.4548) Sealing complete hermetic sealing; cable entry sealed by glass to metal header	Ultimate load	%*Emax	300		
Maximum off centre distance at maximum capacity mm 175 Compensated temperature range °C -10+40 Operating temperature range °C -40+80 (ATEX -40+60) Load cell material stainless steel 17-4 PH (1.4548) Sealing complete hermetic sealing; cable entry sealed by glass to metal header	Safe side load	%*Emax	100		
Compensated temperature range °C -10+40 Operating temperature range °C -40+80 (ATEX -40+60) Load cell material Stainless steel 17-4 PH (1.4548) Sealing complete hermetic sealing; cable entry sealed by glass to metal header	Maximum off centre loading effect %*R0/mm		± 0.00002		
Operating temperature range °C -40+80 (ATEX -40+60) Load cell material Stainless steel 17-4 PH (1.4548) Sealing complete hermetic sealing; cable entry sealed by glass to metal header	Maximum off centre distance at maximum capacity		175		
Load cell material Stainless steel 17-4 PH (1.4548) Sealing complete hermetic sealing; cable entry sealed by glass to metal header	Compensated temperature range		-10+40		
Sealing complete hermetic sealing; cable entry sealed by glass to metal header	Operating temperature range	°C	-40+80 (ATEX -40+60)		
	Load cell material stain		stainless steel 1	7-4 PH (1.4548)	
Protection according EN 60 529 IP68 (up to 2 m water depth) / IP69K	Sealing		complete hermetic sealing; cable entry sealed by glass to metal header		
	Protection according EN 60 529	ater depth) / IP69K			

The limits for Non-Linearity, Hysteresis, and TC_{R0} are typical values. The sum of Non-linearity, Hysteresis and TC_{R0} meets the requirements according to OIML R60 with p_{LC} =0.7.





Mounting bolts M16 8.8; torque 200 Nm. Torque value assumes oiled threads.

Wiring

- The load cell is provided with a shielded, 6 conductor cable (AWG 26). Cable jacket polyurethane
- Cable length:
- Cable diameter: 5.8 mm
- The shield is floating or connected to the load cell body

5 m



A109-Rev7-GB-2(2) Specifications and dimensions are subject to change without notice.