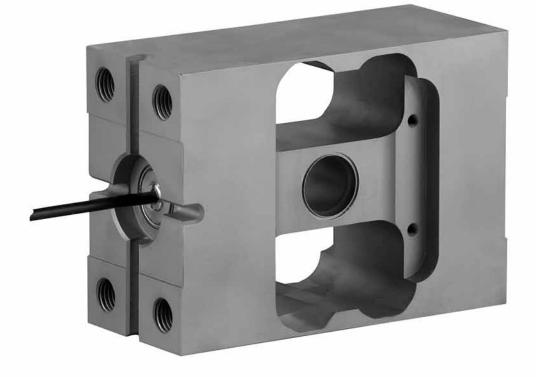
FLINTEC





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

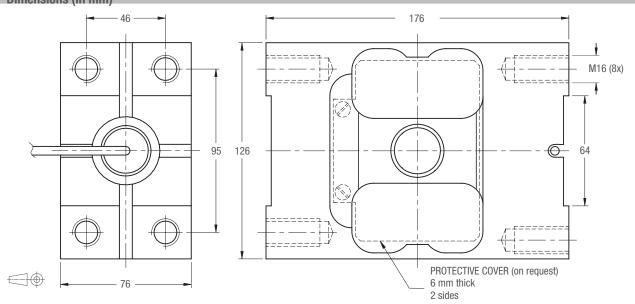
Compatible range of electronics

∽ 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 | | | | |
|---|---|---------------------|--|--------------------------|--|
| Maximum number of verification intervals(n_LC)n.a.3 000Minimum load cell verification interval(Vmin)n.a. $E_{max}/10 000$ Temperature effect on minimum dead load output(TCo)%+R0/10°C ± 0.0400 ± 0.0140 Temperature effect on sensitivity(TCo)%+R0/10°C ± 0.0200 ± 0.0100 Combined error $\%$ +R0 ± 0.0500 ± 0.0200 Non-linearity%+R0 ± 0.0400 ± 0.0166 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 ± 0.0600 ± 0.0070 Rated Output(R0)mV/V $2 \pm 5\%$ $2 \pm 5\%$ Zero balance $\%$ -R0 ± 0.0070 n.a. ± 0.0070 Rated Output(R0)mV/V $2 \pm 5\%$ $2 \pm 5\%$ Upting listance(Rul) Ω 960 ± 50 1100 ± 50 Output resistance(Rout) Ω 960 ± 50 1100 ± 50 Insulation resistance (100 V DC)MQ ≥ 5000 2 ± 5000 Safe side load $\%$ -Emax 3000 Safe iside load $\%$ -FR/max 100 Maximum off centre loading effect $\%$ -R/M/mm ± 0.00002 Maximum off centre loading effect $\%$ -R/M/mm 175 Compensated temperature range°C $-10+40$ Operating tempe | Maximum capacity (Emax |) kg | 2 000 | | |
| 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 | |
| Temperature effect on minimum dead load output (TC ₀) %+R0/10°C ± 0.0400 ± 0.0140 Temperature effect on sensitivity (TC ₀) %+R0/10°C ± 0.0200 ± 0.0100 Combined error %+R0 ± 0.0400 ± 0.0200 Non-linearity %+R0 ± 0.0400 ± 0.0166 Cree error (30 minutes) / DR %+R0 ± 0.0600 ± 0.0166 Oreror error (30 minutes) / DR %+R0 ± 0.0600 ± 0.0166 Option Min. load cell verification interval (vmin opt) n.a. Emax /20 000 Min. load cell verification interval (Vmin opt) n.a. ± 0.0070 Rated Output (R0) mV/V 2 ± 5% Zero balance %+R0 ± 5 Excitation voltage V 515 Input resistance (R ₀ ct) Ω 960 ± 50 Insultion resistance (100 V DC) MΩ ≥ 5000 Safe load limit %+R0/mm ± 0.00002 Maximum off centre loading effect %+R0/mm ± 0.00002 Maximum off centre loading effect %+R0/mm | Maximum number of verification intervals (nL | ;) | n.a. | 3 000 | |
| Temperature effect on sensitivity (TC _{R0}) %+R0/10°C ± 0.0200 ± 0.0100 Combined error %+R0 ± 0.0500 ± 0.0200 Non-linearity %+R0 ± 0.0400 ± 0.0166 Hystersis %+R0 ± 0.0400 ± 0.0166 Creep error (30 minutes) / DR %+R0 ± 0.0400 ± 0.0166 Option Min. load cell verification interval Temp. effect on min. dead load output (Vmin opt) n.a. Emax /20 000 Atted Output (R0) mV/V 2 ± 5% 2 2 Zero balance %+R0 ± 0.000 ± 5 2 Excitation voltage V 515 1 1 Insulation resistance (RLC) Ω 960 ± 50 1 Output resistance (100 V DC) MΩ ≥ 5000 25 000 25 000 25 600 Safe load limit (Elim) %+Emax 300 300 36 eside load %+Emax 300 Safe load limit © %+RO/mm ± 0.00002 10+40 00002 <t< td=""><td>Minimum load cell verification interval (v_{min}</td><td>)</td><td>n.a.</td><td>E_{max} /10 000</td></t<> | Minimum load cell verification interval (v _{min} |) | n.a. | E _{max} /10 000 | |
| $\begin{array}{c c c c c c c c c c c c c c c c c c c $ | Temperature effect on minimum dead load output (TC |) %*R0/10°C | ± 0.0400 | ± 0.0140 | |
| 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 | |
| Creep error (30 minutes) / DR $%*R0$ ± 0.0600 ± 0.0166 OptionMin. load cell verification interval Temp. effect on min. dead load output (TC _{0 opt})m.a. $E_{max}/20000$ Rated Output(RO)mV/V $2 \pm 5\%$ Zero balance $%*R0$ ± 5 Excitation voltageV 515 Input resistance(Ruc) Ω Output resistance(Ruc) Ω Output resistance(Rout) Ω Safe load limit(Elim) $\%*E_{max}$ Ultimate load $\%*E_{max}$ 300 Safe ide load $\%*E_{max}$ 100 Maximum off centre loading effect $\%*R0/m$ ± 0.0002 Maximum off centre loading effect $\%*R0/m$ 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 | Non-linearity | %*R0 | ± 0.0400 | ± 0.0166 | |
| $\begin{array}{ c c c c c c }\hline \hline Min. load cell verification interval (Vmin opt) & n.a. & E_{max}/20000 \\\hline \hline Temp. effect on min. dead load output (TCo opt) %*R0/10°C & n.a. & \pm 0.0070 \\\hline \hline Rated Output & (RO) & mV/V & 2 \pm 5\% \\\hline \hline Zero balance & %*RO & \pm 5 \\\hline Excitation voltage & V & 515 \\\hline Input resistance & (R_{LC}) & \Omega & 1100 \pm 50 \\\hline Output resistance & (R_{Out}) & \Omega & 960 \pm 50 \\\hline Insulation resistance (100 V DC) & M\Omega & \geq 5000 \\\hline Safe load limit & (Elim) %*Emax & 200 \\\hline Ultimate load & 9%*Emax & 300 \\\hline Safe side load & 9%*Emax & 100 \\\hline Maximum off centre loading effect & %*RO/mm & \pm 0.00002 \\\hline Maximum off centre loading effect & 9%*RO/mm & 175 \\\hline Compensated temperature range & °C & -10+40 \\\hline Operating temperature range & °C & -40+80 (ATEX -40+60) \\\hline Load cell material & complete hermetic sealing; cable entry sealed by glass to metal header \\\hline \end{array}$ | 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 | |
| Temp. effect on min. dead load output(TC _{0 opt})%*R0/10°Cn.a. ± 0.0070 Rated Output(RO)mV/V $2 \pm 5\%$ Zero balance%*R0 ± 5 Excitation voltageV 515 Input resistance(RLc) Ω 1100 ± 50 Output resistance(Rout) Ω 960 ± 50 Insulation resistance (100 V DC)M Ω ≥ 5000 Safe load limit(Elim)%*Emax 200 Uttimate load%*Emax 300 Safe side load%*Emax 100 Maximum off centre loading effect%*R0/mm ± 0.00002 Maximum off centre distance at maximum capacitymm 175 Compensated temperature range°C $-10+40$ Operating temperature range°C $-40+60$ Load cell materialstainless steel 17-4 PH (1.4548)Sealingcomplete hermetic sealing; cable entry sealed by glass to metal header | Ontion Min. load cell verification interval (Vmin of | t) | n.a. | E _{max} /20 000 | |
| Zero balance%*R0Excitation voltageVExcitation voltageVInput resistance(RLC)Q1100 ± 50Output resistance(Rout)Q960 ± 50Insulation resistance (100 V DC)MQSafe load limit(Elim)%*Emax200Ultimate load%*EmaxSafe side load%*EmaxMaximum off centre loading effect%*R0/mmMaximum off centre distance at maximum capacitymm175Compensated temperature range°COperating temperature range°CLoad cell materialstainless steel 17-4 PH (1.4548)Sealingcomplete hermetic sealing; cable entry sealed by glass to metal header | Temp. effect on min. dead load output (TC _{0 of} | t) %*R0/10°C | n.a. | ± 0.0070 | |
| Excitation voltageVExcitation voltageVInput resistance(RLC) Ω Output resistance(Rout) Ω Output resistance (100 V DC)M Ω ≥ 5000 Safe load limit(Elim) $\%*E_{max}$ 200Ultimate load $\%*E_{max}$ 300Safe side load $\%*E_{max}$ 100Maximum off centre loading effect $\%*R0/mm$ ± 0.00002 Maximum off centre distance at maximum capacitymm175Compensated temperature range°C $-10+40$ Operating temperature range°C $-40+60$ Load cell materialstainless steel 17-4 PH (1.4548)Sealingcomplete hermetic sealing; cable entry sealed by glass to metal header | Rated Output (R |)) mV/V | 2 ± 5% | | |
| Input resistance(RLC)Ω1100 ± 50Output resistance(Rout)Ω960 ± 50Insulation resistance (100 V DC)MΩ≥ 5000Safe 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 | Zero balance | %*R0 | ± 5 | | |
| $\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.



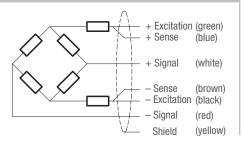


Mounting bolts M16 8.8; torque 200 Nm. Torque value assumes oiled threads.

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.