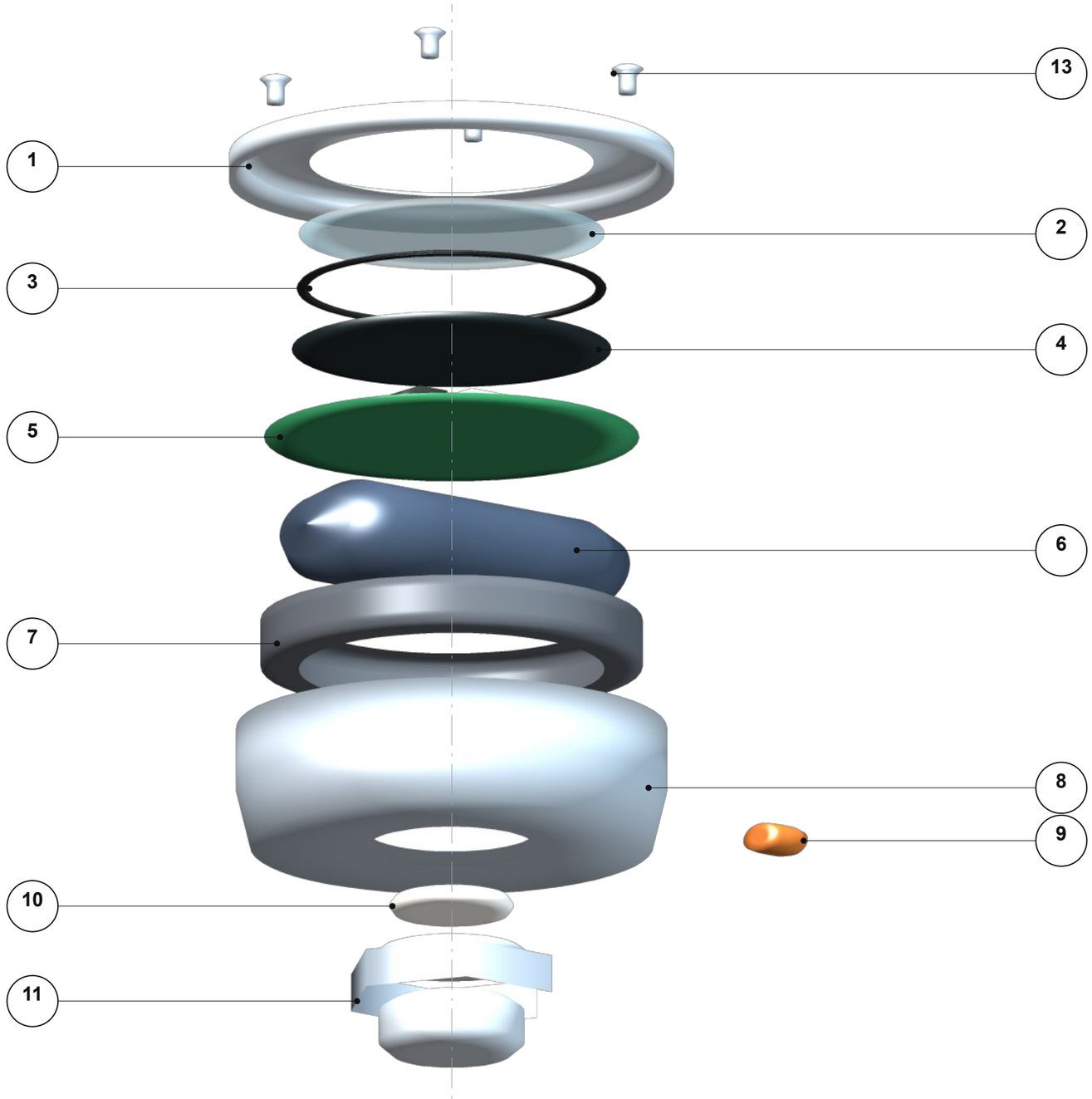



*Exploded view, parallel projection, not to scale. Items 12 and 14 not shown.*

| Item | Qty | Part number | Description | Material | Remark |
|---|---|---|---|---|---|
| 1 | 1 | PG200-1101 | Bezel ring, knurled | 1.4404 | |
| 2 | 1 | PG200-1102 | Cover glass Ø44 × 1.5 | Sapphire | AR both sides |
| 3 | 1 | OR-42X1.5-FKM | O-ring 42 × 1.5 | FKM 75 | |
| 4 | 1 | PG200-2401 | Display module 1.9 in | – | transflective |
| 5 | 1 | PG200-2000 | Main board assembly | FR-4 | see sheet 3 |
| 6 | 1 | BAT-C-LTC | Lithium cell 3.6 V 8.5 Ah | Li-$SOCl_2$ | C size |
| 7 | 1 | PG200-1301 | Battery holder | PPS GF40 | |
| 8 | 1 | PG200-1201 | Housing | 1.4404 | machined, Ra 0.8 |
| 9 | 1 | PG200-1501 | Push button with seal | 1.4404 / EPDM | |
| 10 | 1 | CS-18-AL | Ceramic sensor cell Ø18 | $Al_2O_3$ 96 % | 14 ranges |
| 11 | 1 | PG200-1401-G4 | Sensor carrier G½, SW 27 | 1.4404 | laser-welded |
| 12 | 1 | VENT-M5 | Pressure compensation element | PA / ePTFE | not shown |
| 13 | 4 | ISO 14580 M2.5×6 | Screw, hexalobular | A4-70 | 0.5 Nm |
| 14 | 1 | PG200-1601 | Nameplate | 1.4301 | laser-marked |

## Assembly notes

1 Sensor cell (10) bonded and laser-welded into carrier (11) before final assembly; helium leak rate < $1 \cdot 10^{-8}$ mbar·l/s.
2 Carrier (11) torque into housing (8): 25 Nm, thread sealant not permitted (hygienic version).
3 Lightly grease O-ring (3) with silicone-free lubricant; glass (2) seated without tools.
4 Screws (13): 0.5 Nm, cross pattern. Bezel (1) pressed on, then calibration at 11 points × 5 temperatures.
5 Protection class IP68 verified on 100 % of units, 2 m water, 30 min.

Mass 212 g (G½ version, without gasket) · Protection IP68 · Wetted parts 1.4404, $Al_2O_3$, FKM

| Range code | Measuring range | Overload | Burst | Sensor cell |
|---|---|---|---|---|
| R01 | −1 … 0 bar | 4 bar | 10 bar | CS-18-AL-L |
| R06 | 0 … 10 bar | 30 bar | 80 bar | CS-18-AL-L |
| R08 | 0 … 40 bar | 120 bar | 200 bar | CS-18-AL-M |
| R10 | 0 … 100 bar | 300 bar | 500 bar | CS-18-AL-M |
| R12 | 0 … 400 bar | 1000 bar | 1500 bar | CS-18-AL-H |
| R14 | 0 … 1000 bar | 1500 bar | 2500 bar | CS-18-AL-H |

*Six of the fourteen ranges shown; full list in data sheet PG200-DS-EN.*

| Rev. | Description | Date | By |
|---|---|---|---|
| A | First release for prototypes (20 pcs) | 2026-03-02 | SMo |
| B | Bezel knurl 0.8 mm, O-ring 42 × 1.5 FKM, vent added | 2026-05-18 | SMo |
| C | Series release; battery holder PPS GF40; screws A4 | 2026-07-28 | PRo |

VALTORNE

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Vufflens-la-Ville

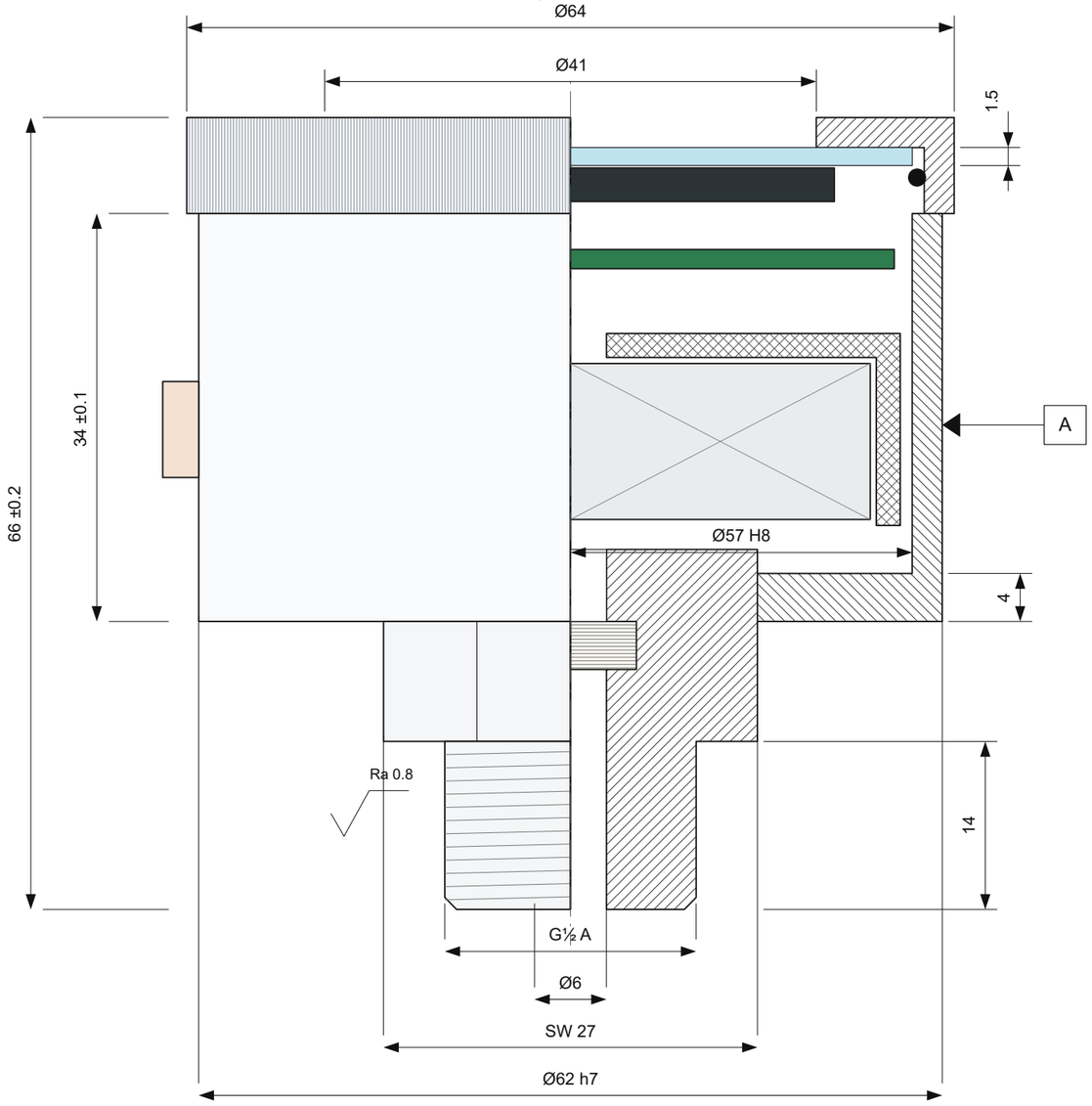
Title
**Exploded assembly and bill of materials**

Product
PG-200 digital pressure gauge, compact G½ version (PG200-Rxx-G4)

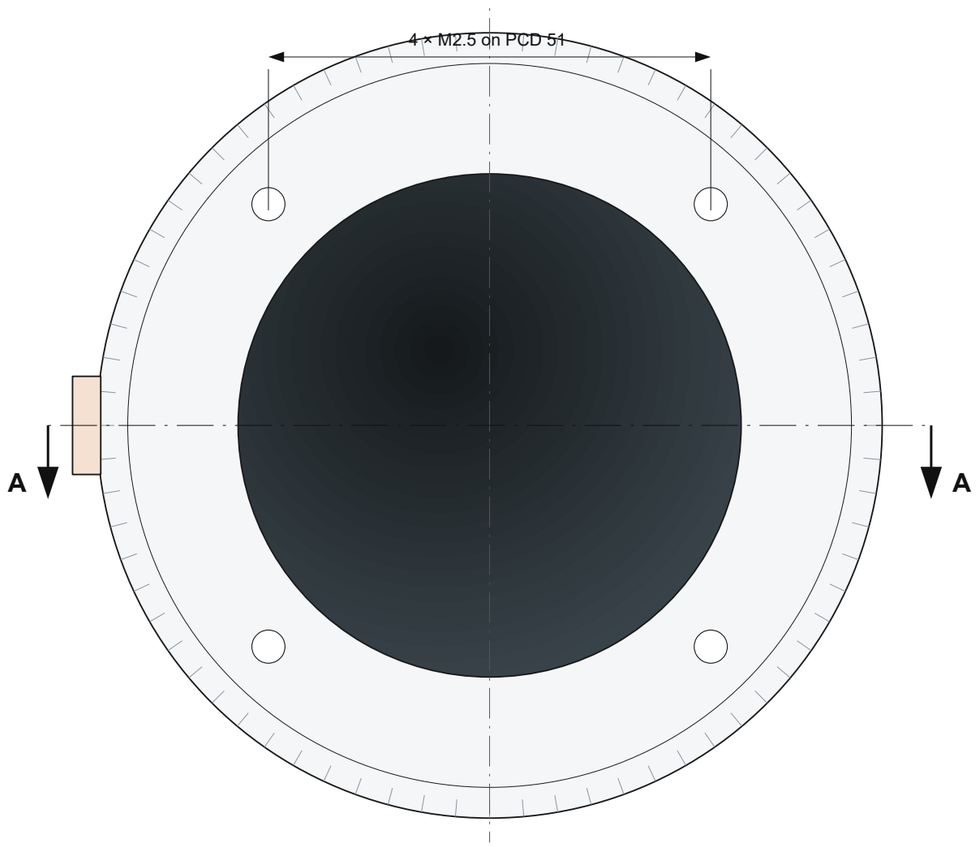
| Drawing no. | Revision | Sheet | Scale |
|---|---|---|---|
| PG200-1000-01 | C | 1 / 3 | NTS |

| Drawn | Checked | Approved | General tolerances |
|---|---|---|---|
| S. Mottier 2026-07-14 | P. Rochat 2026-07-21 | N. Perrottet 2026-07-28 | ISO 2768-mK |

## Front view, half section A–A




## Top view




### Notes

1 Dimensions in mm. Scale 2:1. Untoleranced dimensions ISO 2768-mK. Drawing in first-angle projection.
2 Wetted parts 1.4404 (316L), electropolished Ra ≤ 0.8 µm; edges broken 0.2.
3 Thread G½ A to ISO 228-1; sealing on the front face of the hex with the supplied gasket.
4 Section hatching per material, see key below the view.

| ⌖ | Ø0.05 | A | position of the G½ axis relative to datum A (housing Ø62 h7) |
|---|---|---|---|

| ▱ | 0.02 | flatness of the sealing face |
|---|---|---|

1.4404 stainless steel · PPS GF40 plastic · $Al_2O_3$ ceramic · FKM O-ring (solid)

| Rev. | Description | Date | By |
|---|---|---|---|
| A | First release for prototypes (20 pcs) | 2026-03-02 | SMo |
| B | Bezel knurl 0.8 mm, O-ring 42 × 1.5 FKM, vent added | 2026-05-18 | SMo |
| C | Series release; battery holder PPS GF40; screws A4 | 2026-07-28 | PRo |

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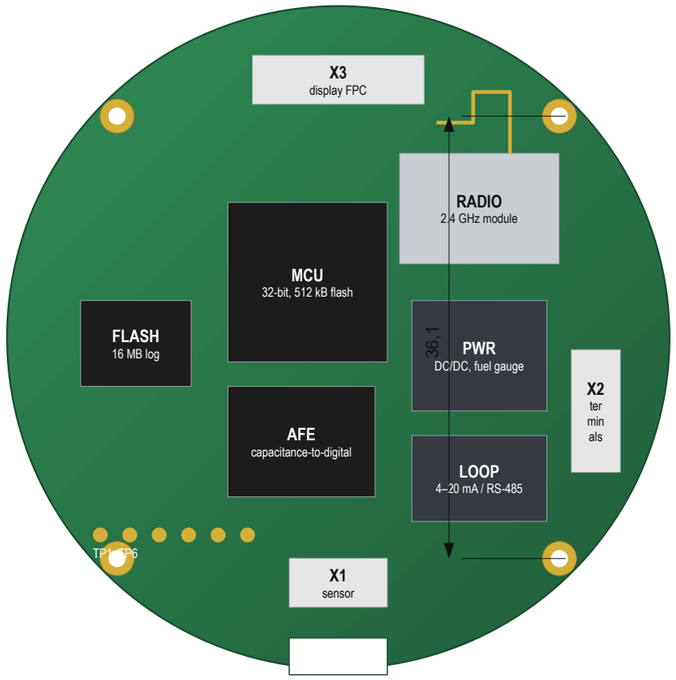
Title
**Views, section A-A and dimensions**

Product
PG-200 digital pressure gauge, compact G½ version (PG200-Rxx-G4)

| Drawing no. | Revision | Sheet | Scale |
|---|---|---|---|
| PG200-1000-02 | C | 2 / 3 | 2:1 |

| Drawn | Checked | Approved | General tolerances |
|---|---|---|---|
| S. Mottier 2026-07-14 | P. Rochat 2026-07-21 | N. Perrottet 2026-07-28 | ISO 2768-mK |

## Main board PG200-2000, component side (2:1)

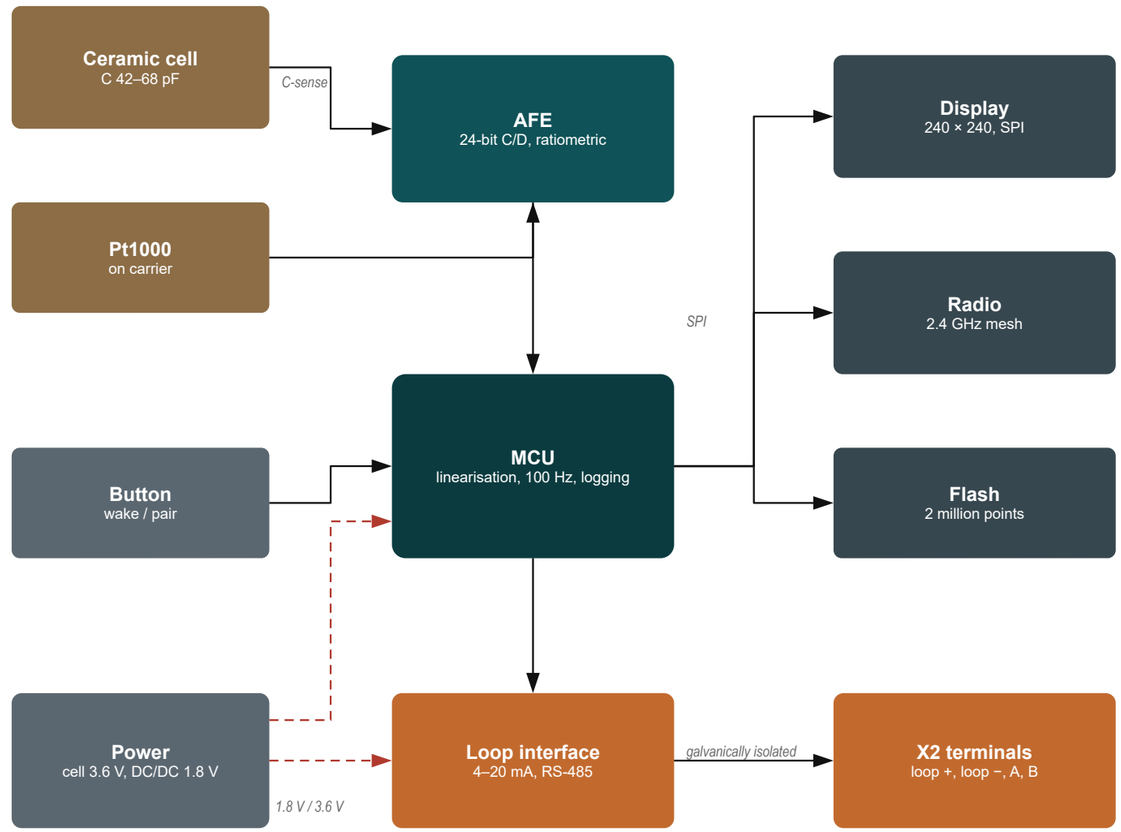



Ø54 −0.2

| X1 pin | Signal | Wire |
|---|---|---|
| 1 | C-sense excitation | white |
| 2 | C-sense measure | brown |
| 3 | C-reference | green |
| 4 | Pt1000 + | yellow |
| 5 | Pt1000 − | grey |
| 6 | Shield | drain |

| X2 terminal | Signal | Rating |
|---|---|---|
| 1 | Loop + / supply | 10–30 V DC |
| 2 | Loop − | 4–20 mA |
| 3 | RS-485 A | Modbus RTU |
| 4 | RS-485 B | 19.2 kbit/s |
| 5 | Earth | housing |

## Functional block diagram




### Board data

4 layers FR-4, 1.0 mm, ENIG
Sleep current 6 µA, average 140 µA at 1 reading/s
Conformal coating, IPC-CC-830
ESD ±8 kV contact on X2

| Rev. | Description | Date | By |
|---|---|---|---|
| A | First release for prototypes (20 pcs) | 2026-03-02 | SMo |
| B | Bezel knurl 0.8 mm, O-ring 42 × 1.5 FKM, vent added | 2026-05-18 | SMo |
| C | Series release; battery holder PPS GF40; screws A4 | 2026-07-28 | PRo |

VALTORNE

Valtorne Instruments SA
Vufflens-la-Ville

Title: **Main board block layout and wiring**

Product: PG-200 digital pressure gauge, compact G½ version (PG200-Rxx-G4)

| Drawing no. | Revision | Sheet | Scale |
|---|---|---|---|
| PG200-1000-03 | C | 3 / 3 | 2:1 |

| Drawn | Checked | Approved | General tolerances |
|---|---|---|---|
| S. Mottier 2026-07-14 | P. Rochat 2026-07-21 | N. Perrottet 2026-07-28 | ISO 2768-mK |