

## QPress Smart Pressure Transmitter - QOM-SMART 2340 Series

Ultra-low power smart pressure transmitter with RS485, temperature readout, and wide range options.

### Certifications

Quality Lab Solutions data sheet R4



### Applications

- Hydrology & water resources
- Petrochemical
- Electric power
- Machinery manufacturing
- Hydraulic & pneumatic control

### Special Features

- RS485 output (ASCII or MODBUS RTU); measures pressure and temperature
- Ultra-low power with auto-sleep; standby current down to  $\sim 10 \mu\text{A}$
- Gauge, Absolute, Sealed gauge and Positive/Negative ranges from mbar to 100 MPa
- Compensation  $-10\ldots 70^\circ\text{C}$ ; accuracy up to  $\pm 0.25\%\text{FS}$  within comp range
- IP65 enclosure; vibration 20 g (20–2000 Hz), shock 20 g (11 ms)
- Stainless-steel/Ti/Ta/Hastelloy C wetted options; multiple process connections



**QOM-SMART 2340**

### Description

The QOM-SMART 2340 Series is a compact, smart transmitter with digital temperature compensation and non-linear correction. It communicates via RS485 (ASCII or MODBUS RTU) and supports bus networking. Ultra-low standby current enables battery-powered deployments, while integrated temperature readout aids diagnostics. Pressure types include Gauge, Absolute, Sealed gauge and Positive/Negative with ranges from low mbar values to 100 MPa.

## Specifications

| TECHNICAL SPECIFICATIONS    |                                                                                                                                                                                                                                                                                |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pressure range              | –1 bar...0 bar to 0.1 bar...1000 bar (G/A/S; see tables)                                                                                                                                                                                                                       |
| Pressure reference          | Gauge; Absolute; Sealed gauge                                                                                                                                                                                                                                                  |
| Accuracy                    | ±0.5%FS or ±0.25%FS (per range; within –10...70 °C compensation)                                                                                                                                                                                                               |
| Temp. Accuracy              | ±0.5° C (-20 - 80° C) ; ±0.75° C (-30° to -20° C)                                                                                                                                                                                                                              |
| Operating Temp.             | –30...80 °C ; –20...70 °C ; –20...80 °C                                                                                                                                                                                                                                        |
| Compensation temp.          | -10 - 70°C                                                                                                                                                                                                                                                                     |
| Storage temp.               | –40...85 °C ; –20...85 °C                                                                                                                                                                                                                                                      |
| Vibration resistance        | 20 g, 20–2000 Hz                                                                                                                                                                                                                                                               |
| Shock resistance            | 20 g, 11 ms                                                                                                                                                                                                                                                                    |
| Protection                  | IP65                                                                                                                                                                                                                                                                           |
| Wetted Parts                | SS316L/Ta/Ti/Hastelloy C (wetted options)                                                                                                                                                                                                                                      |
| Net weight                  | ≤240 g                                                                                                                                                                                                                                                                         |
| Size of hexagon             | SW27 process head                                                                                                                                                                                                                                                              |
| Approvals/Certification     | UKCA; CE; EAC; RoHS                                                                                                                                                                                                                                                            |
| Electrical Outputs          | RS485 ASCII (D11); RS485 MODBUS RTU (D12)                                                                                                                                                                                                                                      |
| Process connections         | M20× 1.5 Male; G1/4 Male; G1/2 Male;G1/ 4 Female; M20×1.5 Male; NPT1/4 Male; NPT1/ 4 Female; NPT1/2 Male; G3/8 Male; 7/16-20 UNF Male; Flush diaphragm M20× 1.5 Male; Flush diaphragm G1/ 2 Male; Hygienic DN25 clamp connection;Hygienic DN25 clamp connection with heat sink |
| Overpressure/Burst Pressure | ≤2×FS or 110 MPa (minimum value valid)                                                                                                                                                                                                                                         |
| Housing Material            | Housing: SS304/SS316L/Ti; Cable: PE/PUR                                                                                                                                                                                                                                        |
| Electrical connections      | 4-pin; Cable; 7-pin                                                                                                                                                                                                                                                            |
| Power Supply                | 3.6–28 V DC; RS485 bus up to 99 devices                                                                                                                                                                                                                                        |
| Longterm Stability          | ±0.25%FS/year                                                                                                                                                                                                                                                                  |

## Measuring Range (Gauge Pressure)

| Range Code | Measuring Range   | Overpressure | Accuracy |
|------------|-------------------|--------------|----------|
| 01         | -0.25-0 bar       | 200%FS       | ±0.5%FS  |
| 02         | -0.4-0 bar        | 250%FS       | ±0.5%FS  |
| 03         | -0.6-0 bar        | 167%FS       | ±0.5%FS  |
| 04         | -1-0 bar          | 150%FS       | ±0.5%FS  |
| 05         | -0.03...+0.03 bar | 167%FS       | ±0.5%FS  |
| 06         | -0.05...+0.2 bar  | 120%FS       | ±0.5%FS  |
| 07         | -0.05...+0.25 bar | 100%FS       | ±0.5%FS  |
| 08         | -0.15...+0.15 bar | 100%FS       | ±0.5%FS  |
| 09         | -0.2...+0.2 bar   | 75.0%FS      | ±0.5%FS  |
| 10         | -0.25...+0.25 bar | 100%FS       | ±0.5%FS  |
| 11         | -0.3...+0.3 bar   | 83.3%FS      | ±0.5%FS  |
| 12         | -0.5...+0.5 bar   | 100%FS       | ±0.5%FS  |
| 13         | -1...+0.6 bar     | 93.8%FS      | ±0.5%FS  |
| 14         | -1...+1 bar       | 100%FS       | ±0.5%FS  |
| 15         | -1...+1.5 bar     | 120%FS       | ±0.25%FS |
| 16         | -1...+3 bar       | 125%FS       | ±0.25%FS |
| 17         | -1...+5 bar       | 167%FS       | ±0.25%FS |
| 18         | -1...+9 bar       | 200%FS       | ±0.25%FS |
| 19         | -1...+10 bar      | 227%FS       | ±0.25%FS |
| 20         | -1...+15 bar      | 188%FS       | ±0.25%FS |

| Range Code | Measuring Range | Overpressure | Accuracy |
|------------|-----------------|--------------|----------|
| 21         | -1...+16 bar    | 176%FS       | ±0.25%FS |
| 22         | -1...+20 bar    | 143%FS       | ±0.25%FS |
| 23         | -1...+24 bar    | 200%FS       | ±0.25%FS |
| 24         | -1...+25 bar    | 192%FS       | ±0.25%FS |
| 25         | -1...+30 bar    | 194%FS       | ±0.25%FS |
| 26         | -1...+35 bar    | 194%FS       | ±0.25%FS |
| 27         | 0-1 bar         | 200%FS       | ±0.25%FS |
| 28         | 0-1.6 bar       | 188%FS       | ±0.25%FS |
| 29         | 0-2 bar         | 200%FS       | ±0.25%FS |
| 30         | 0-2.5 bar       | 200%FS       | ±0.25%FS |
| 31         | 0-3 bar         | 200%FS       | ±0.25%FS |
| 32         | 0-4 bar         | 250%FS       | ±0.25%FS |
| 33         | 0-5 bar         | 200%FS       | ±0.25%FS |
| 34         | 0-6 bar         | 167%FS       | ±0.25%FS |
| 35         | 0-7 bar         | 200%FS       | ±0.25%FS |
| 36         | 0-8 bar         | 200%FS       | ±0.25%FS |
| 37         | 0-9 bar         | 200%FS       | ±0.25%FS |
| 38         | 0-10 bar        | 200%FS       | ±0.25%FS |
| 39         | 0-16 bar        | 188%FS       | ±0.25%FS |
| 40         | 0-20 bar        | 200%FS       | ±0.25%FS |
| 41         | 0-25 bar        | 200%FS       | ±0.25%FS |
| 42         | 0-30 bar        | 200%FS       | ±0.25%FS |
| 43         | 0-35 bar        | 171%FS       | ±0.25%FS |

### Measuring Range (Absolute Pressure)

| Range Code | Measuring Range | Overpressure | Accuracy |
|------------|-----------------|--------------|----------|
| 01         | 0-1 bar         | 200%FS       | ±0.5%FS  |
| 02         | 0-1.6 bar       | 188%FS       | ±0.25%FS |
| 03         | 0-2 bar         | 200%FS       | ±0.25%FS |
| 04         | 0-2.5 bar       | 200%FS       | ±0.25%FS |
| 05         | 0-3 bar         | 200%FS       | ±0.25%FS |
| 06         | 0-4 bar         | 250%FS       | ±0.25%FS |
| 07         | 0-5 bar         | 200%FS       | ±0.25%FS |
| 08         | 0-6 bar         | 167%FS       | ±0.25%FS |
| 09         | 0-7 bar         | 200%FS       | ±0.25%FS |
| 10         | 0-8 bar         | 200%FS       | ±0.25%FS |
| 11         | 0-9 bar         | 200%FS       | ±0.25%FS |
| 12         | 0-10 bar        | 200%FS       | ±0.25%FS |
| 13         | 0-16 bar        | 188%FS       | ±0.25%FS |
| 14         | 0-20 bar        | 200%FS       | ±0.25%FS |
| 15         | 0-25 bar        | 200%FS       | ±0.25%FS |
| 16         | 0-30 bar        | 200%FS       | ±0.25%FS |
| 17         | 0-35 bar        | 171%FS       | ±0.25%FS |
| 18         | 0-40 bar        | 250%FS       | ±0.25%FS |
| 19         | 0-50 bar        | 200%FS       | ±0.25%FS |
| 20         | 0-60 bar        | 167%FS       | ±0.25%FS |
| 21         | 0-70 bar        | 200%FS       | ±0.25%FS |
| 22         | 0-80 bar        | 200%FS       | ±0.25%FS |
| 23         | 0-90 bar        | 200%FS       | ±0.25%FS |
| 24         | 0-100 bar       | 200%FS       | ±0.25%FS |
| 25         | 0-160 bar       | 188%FS       | ±0.25%FS |

| Range Code | Measuring Range | Overpressure | Accuracy |
|------------|-----------------|--------------|----------|
| 26         | 0-200 bar       | 150%FS       | ±0.25%FS |
| 27         | 0-250 bar       | 150%FS       | ±0.25%FS |
| 28         | 0-300 bar       | 117%FS       | ±0.25%FS |
| 29         | 0-350 bar       | 150%FS       | ±0.25%FS |
| 30         | 0-400 bar       | 150%FS       | ±0.25%FS |
| 31         | 0-500 bar       | 150%FS       | ±0.25%FS |
| 32         | 0-600 bar       | 150%FS       | ±0.25%FS |
| 33         | 0-700 bar       | 143%FS       | ±0.25%FS |
| 34         | 0-800 bar       | 125%FS       | ±0.25%FS |
| 35         | 0-900 bar       | 111%FS       | ±0.25%FS |
| 36         | 0-1000 bar      | 110%FS       | ±0.25%FS |

Measuring Range (Sealed Pressure)

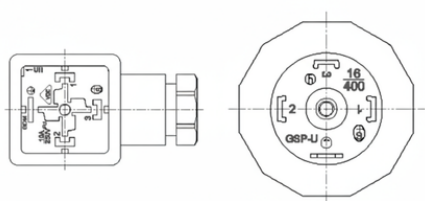
| Range Code | Measuring Range | Overpressure | Accuracy |
|------------|-----------------|--------------|----------|
| 01         | 0-35 bar        | 200%FS       | ±0.25%FS |
| 02         | 0-40 bar        | 250%FS       | ±0.25%FS |
| 03         | 0-50 bar        | 200%FS       | ±0.25%FS |
| 04         | 0-60 bar        | 167%FS       | ±0.25%FS |
| 05         | 0-70 bar        | 143%FS       | ±0.25%FS |
| 06         | 0-80 bar        | 188%FS       | ±0.25%FS |
| 07         | 0-90 bar        | 167%FS       | ±0.25%FS |
| 08         | 0-100 bar       | 150%FS       | ±0.25%FS |
| 09         | 0-160 bar       | 188%FS       | ±0.25%FS |
| 10         | 0-200 bar       | 150%FS       | ±0.25%FS |
| 11         | 0-250 bar       | 180%FS       | ±0.25%FS |
| 12         | 0-300 bar       | 175%FS       | ±0.25%FS |
| 13         | 0-350 bar       | 107%FS       | ±0.25%FS |
| 14         | 0-400 bar       | 150%FS       | ±0.25%FS |
| 15         | 0-500 bar       | 150%FS       | ±0.25%FS |
| 16         | 0-600 bar       | 150%FS       | ±0.25%FS |
| 17         | 0-700 bar       | 143%FS       | ±0.25%FS |
| 18         | 0-800 bar       | 125%FS       | ±0.25%FS |
| 19         | 0-900 bar       | 111%FS       | ±0.25%FS |
| 20         | 0-1000 bar      | 110%FS       | ±0.25%FS |

## Digital Output

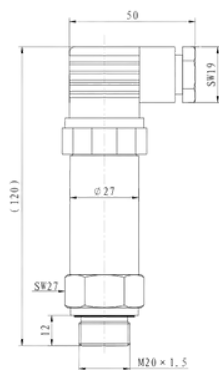
| Code | Output           | Power Supply | Load                                  |
|------|------------------|--------------|---------------------------------------|
| D11  | RS485 ASCII      | 3.6-28 VDC   | 4-wire bus; supports up to 99 devices |
| D12  | RS485 MODBUS RTU | 3.6-28 VDC   | 4-wire bus; supports up to 99 devices |

## Electrical Connections

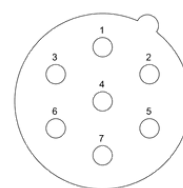
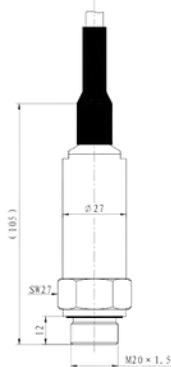
| Code | Description                    | Pinout                                                  |
|------|--------------------------------|---------------------------------------------------------|
| E2   | 4-pin connector , RS485 4-wire | Pin 1: +V; Pin 2: -V; Pin 3: RS485A; Pin 5: RS485B      |
| E1   | Cable outlet , RS485 4-wire    | Red: +V; Black: -V; Yellow/Green: RS485A; White: RS485B |
| E3   | 7-pin connector , RS485 4-wire | Pin 1: +V; Pin 2: -V; Pin 4: RS485A; Pin 5: RS485B      |



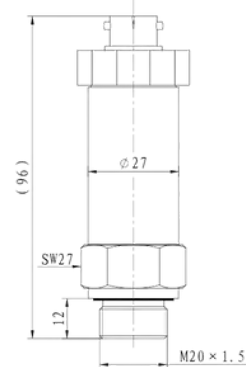
E2 – 4-pin Connector



E1 – Cable outlet



E3 – 7-pin Connector



## Power Supply

| Code    | Supply     |
|---------|------------|
| PS36-28 | 3.6-28 VDC |

## Construction Materials

| Code | Diaphragm    | Pressure Port | Housing      |
|------|--------------|---------------|--------------|
| M22  | SS316L       | SS304         | SS304        |
| M23  | SS316L       | SS316L        | SS304        |
| M24  | SS316L       | SS316L        | SS316L       |
| M25  | Tantalum Ta1 | SS316L        | SS304        |
| M35  | Tantalum Ta1 | Hastelloy C   | SS304        |
| M40  | Titanium TA1 | Titanium TC4  | Titanium TC4 |

## Cable Material

| Code | Description   |
|------|---------------|
| N    | None          |
| CB1  | PE (standard) |
| CB2  | PUR           |

## Cable Length

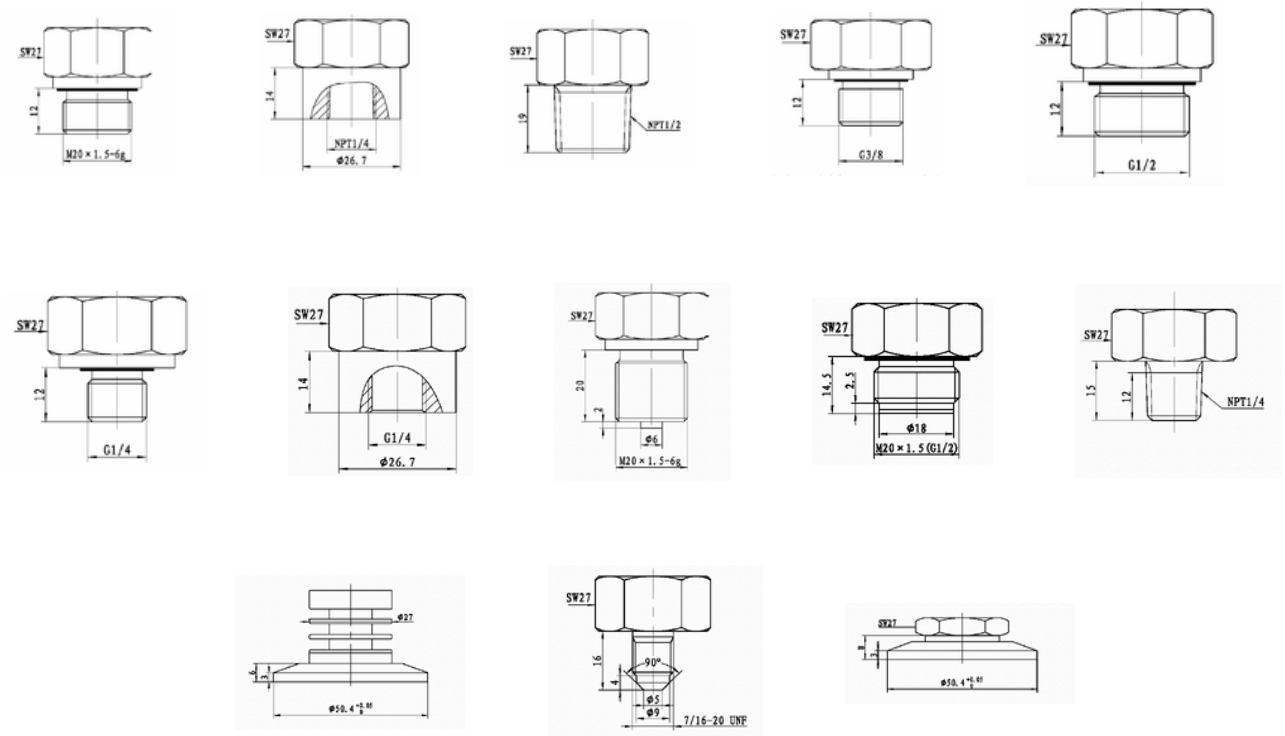
| Code | Length |
|------|--------|
| CL01 | 1 m    |
| CL15 | 1.5 m  |
| CL02 | 2 m    |
| CL03 | 3 m    |
| CL04 | 4 m    |
| CL05 | 5 m    |
| CL06 | 6 m    |
| CL07 | 7 m    |
| CL08 | 8 m    |
| CL09 | 9 m    |
| CL10 | 10 m   |

## Accuracy options

| Code | Accuracy |
|------|----------|
| AC25 | ±0.25%FS |
| AC50 | ±0.5%FS  |

## Process Connections/Drawings

| Code | Thread / Port                      |
|------|------------------------------------|
| P01  | M20x1.5 Male, face seal            |
| P02  | G1/4 Male, face seal               |
| P03  | G1/2 Male, face seal               |
| P04  | G1/4 Female, waterline seal        |
| P05  | M20x1.5 Male, waterline seal       |
| P06  | NPT1/4 Male                        |
| P08  | NPT1/4 Female                      |
| P10  | NPT1/2 Male                        |
| P16  | G3/8 Male, waterline seal          |
| P26  | 7/16-20 UNF Male, 90 deg cone seal |
| PC1  | Flush diaphragm M20x1.5 Male       |
| PC3  | Flush diaphragm G1/2 Male          |
| PD1  | DN25 Clamp                         |
| PD1S | DN25 Clamp with heat sink          |



## Process Connection Seal

| Code | Seal type      |
|------|----------------|
| Z0   | None           |
| Z1   | NBR            |
| Z2   | FKM (standard) |
| Z3   | EPDM           |
| Z4   | Copper         |

## Accessory

| Code | Description                        |
|------|------------------------------------|
| JB5  | Yb junction box (5-core terminals) |
| MS5  | MS200 (5-core terminals)           |
| PD14 | PD140                              |
| NI   | Ye (no indicator)                  |
| PP   | Polymer plug                       |
| DG   | Damping gasket                     |

## Order Guide

| Segment                | Your Code               | Options                                                    |
|------------------------|-------------------------|------------------------------------------------------------|
| Product family         | QOM-SMART 2340          | QOM-SMART 2340                                             |
| Pressure Reference     | GP/AP/SP                | Select Pressure reference                                  |
| Range                  | 01...NN                 | Range as per Pressure reference see measuring range tables |
| Accuracy               | AC25/AC50               | See Accuracy options                                       |
| Digital Output         | D11/D12                 | See Digital Outputs                                        |
| Power Supply           | PS36-28                 | See Power Supply                                           |
| Construction Materials | M22/M23/M24/M25/M35/M40 | See Construction Materials                                 |
| Process Connection     | P01...                  | See Process Connections & Drawings                         |
| Connection Seal        | Z0...Z4                 | See Connection Sealing                                     |
| Electrical Connection  | E1/E2/E3                | See Electrical Connections                                 |
| Cable Material         | CB1/CB2                 | See Cable Material                                         |
| Cable Length           | CL01/CL15/CL02...CL10   | See Cable Length                                           |
| Certification          | NA                      | See Certification                                          |
| Accessories            | —                       | See Accessory                                              |

**Ordering Example** Sealed gauge 0-100 bar (Range 08),  $\pm 0.25\%FS$ , RS485 MODBUS RTU, 3.6-28 VDC, SS316L diaphragm/port/housing, G1/4 male face-seal, FKM seal, 4-pin connector

| Family         | Ref | Range | Accuracy | Digital Output | Power Supply | Construction Materials | Process Connection | Process Connection Sealing | Electrical Connection | Cable Material (E1 only) | Cable Length (E1 only) | Certification | Accessories |
|----------------|-----|-------|----------|----------------|--------------|------------------------|--------------------|----------------------------|-----------------------|--------------------------|------------------------|---------------|-------------|
| QOM-SMART 2340 | SP  | 08    | AC25     | D12            | PS36-28      | M24                    | P02                | Z2                         | E2                    | -                        | -                      | -             | -           |

### Notes

Ensure media compatibility with wetted parts. Torque depends on gasket, mating material and lubrication.