

**DZKJ**

# **Sensor Engineering Selection & Application Guide**

Model-specific published parameters, application concepts and project-documentation checklists.

REVIEWED CONTENT | 10 OCTOBER 2026

32 model/family summaries | Two application plans | OEM/ODM review workflow

## **How to use this guide**

Start with the exact model or order code. A family range is not the range of every unit; an optional interface is not a standard feature. Follow the complete current datasheet and wiring instructions for the supplied configuration.

This original DZKJ selection summary is not a manufacturer-issued datasheet, calibration certificate, conformity declaration or proof of a delivered customer project. Missing values are explicitly marked; do not fill them from a similar model.

Application plans illustrate engineering evaluation, not completed customer installations. Certification and factory-ownership claims require matching evidence.

## **Contact DZKJ**

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# AS907CCA



| Parameter             | Published value                   |
|-----------------------|-----------------------------------|
| Measurement range     | -30 to +500 °C                    |
| Accuracy              | Not stated in the reviewed source |
| Power supply          | Not stated in the reviewed source |
| Operating temperature | -40 to +85 °C                     |
| Output / protocol     | IR+ / IR- / NTC / GND             |

Differential thermopile voltage output with NTC compensation; TO-46 package. This is not a ready-to-use calibrated digital thermometer.

Field of view: 87 degrees; thermopile resistance: 250 ±20 kohms; NTC: 100 kohms ±1% at 25 °C; B: 3950 K ±1% (25/50 °C). Operating humidity: 20-95% RH.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-001. Source documentation is retained in the internal review register.

# ACD3100



| Parameter             | Published value              |
|-----------------------|------------------------------|
| Measurement range     | 400-5000 ppm CO <sub>2</sub> |
| Accuracy              | ±(50 ppm + 3% reading)       |
| Power supply          | 5.0 ±0.1 V DC                |
| Operating temperature | -10 to +50 °C                |
| Output / protocol     | I <sup>2</sup> C / UART      |
| Current consumption   | <45 mA (average)             |
| Sampling interval     | 2 s                          |

Supply ripple must be below 50 mV. Operating humidity: 0-95% RH, non-condensing. Warm-up: 120 s.

Default interface is I<sup>2</sup>C with SET floating; SET low selects UART. Confirm logic levels and the current communication instructions before integration.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-002. Source documentation is retained in the internal review register.

# AFD4020 / AFD4040 / AFD4100



| Parameter             | Published value                                                 |
|-----------------------|-----------------------------------------------------------------|
| Measurement range     | AFD4020: 2-16 L/min; AFD4040: 5-40 L/min; AFD4100: 10-100 L/min |
| Accuracy              | <±3% FS                                                         |
| Power supply          | 18-28 V DC                                                      |
| Operating temperature | -10 to +65 °C                                                   |
| Output / protocol     | 4-20 mA / 1-5 V / RS485 Modbus RTU / NPN / PNP                  |
| Medium                | Non-corrosive liquids                                           |
| Pressure limit        | 10 bar rated / 16 bar maximum                                   |

Outputs are separate order-code configurations. NPN and PNP are alarm outputs, not analog flow-measurement outputs.

Liquid temperature: 0 to +90 °C, without freezing or condensation. Temperature-sensing variants specify ±5% FS maximum at 25 °C.  
Repeatability: <2%.

Wetted base: PPS; end caps: SUS304. The January 2026 manual excludes needle-valve configurations for AFD4100. Confirm the exact order code and wiring before use.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-003. Source documentation is retained in the internal review register.

# AFD5004 / AFD5250



| Parameter             | Published value                                |
|-----------------------|------------------------------------------------|
| Measurement range     | AFD5004: 0.5-4 L/min; AFD5250: 50-250 L/min    |
| Accuracy              | $\leq \pm 3\%$ FS                              |
| Power supply          | 18-28 V DC                                     |
| Operating temperature | -10 to +65 °C                                  |
| Output / protocol     | 4-20 mA / 1-5 V / RS485 Modbus RTU / NPN / PNP |
| Medium                | Non-corrosive liquids                          |
| Pressure limit        | 10 bar rated / 16 bar maximum                  |

Outputs are separate order-code configurations. NPN and PNP are alarm outputs, not analog flow-measurement outputs.

Liquid temperature: 0 to +90 °C, without freezing or condensation. Temperature-sensing variants specify  $\pm 5\%$  FS maximum at 25 °C. Repeatability:  $< 2\%$ .

Wetted base: PPS; end caps: SUS304. Needle-valve options are available for AFD5004 only. Confirm thread, display and temperature-sensing options with the order code.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-004. Source documentation is retained in the internal review register.

# AFD2 series



| Parameter             | Published value                                                                      |
|-----------------------|--------------------------------------------------------------------------------------|
| Measurement range     | DN6: 0.5-10; DN10: 1.8-32; DN15: 3.5-50; DN20: 5-85; DN25: 9-150; DN32: 14-240 L/min |
| Accuracy              | ±1% FS (<50% FS); ±2% reading (≥50% FS)                                              |
| Power supply          | 11.5-33 / 10-33 / 4.75-33 V DC                                                       |
| Operating temperature | -30 to +65 °C                                                                        |
| Output / protocol     | 0-10 V / 4-20 mA / frequency / pulse / RS485                                         |
| Protection            | IP65                                                                                 |
| Pressure limit        | 1 MPa maximum                                                                        |

Accuracy conditions: water at 25 °C. Medium: water and aqueous solutions; fluid temperature -20 to +90 °C without freezing. Verify compatibility with the actual mixture.

Supply depends on output: 11.5-33 V DC for 0-10 V, 10-33 V DC for 4-20 mA, and 4.75-33 V DC for frequency/pulse or RS485. Follow the variant-specific M12 five-pin wiring.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-005. Source documentation is retained in the internal review register.

# AFM07 series



| Parameter             | Published value                                          |
|-----------------------|----------------------------------------------------------|
| Measurement range     | 0.02-2 / 0.1-10 / 0.25-25 / 0.5-50 / 1-100 / 2-200 L/min |
| Accuracy              | ±3% FS                                                   |
| Power supply          | 9-28 V DC                                                |
| Operating temperature | -10 to +60 °C                                            |
| Output / protocol     | RS485 Modbus RTU / 1-5 V / NPN                           |
| Response time         | 50 ms                                                    |
| Pressure limit        | 0.8 MPa maximum                                          |

Range is selected by order code, not selectable across the entire family on every unit. Standard calibration gas is air at 25 °C and one atmosphere; confirm the actual gas calibration.

For dry, clean, non-corrosive gases only; excludes flammable or explosive gases. Two NPN open-collector channels provide upper/lower alarms. Repeatability: ±1% FS; typical consumption: 0.85 W.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-006. Source documentation is retained in the internal review register.

# AS200B series



| Parameter             | Published value                   |
|-----------------------|-----------------------------------|
| Measurement range     | Not stated in the reviewed source |
| Accuracy              | Not stated in the reviewed source |
| Power supply          | Not stated in the reviewed source |
| Operating temperature | Not stated in the reviewed source |
| Output / protocol     | RS485 / Modbus RTU                |

Gas, flow unit/range, fitting and analog interface are order-code dependent. The published communication document covers AS200/AS200B; it does not establish identical measurement specifications between the two series.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-007. Source documentation is retained in the internal review register.

# AMS2106 series



| Parameter             | Published value                                |
|-----------------------|------------------------------------------------|
| Measurement range     | 0.5-50 mL/min to 3-300 L/min (model dependent) |
| Accuracy              | ±3% FS                                         |
| Power supply          | 9-24 V DC / 3 × AA                             |
| Operating temperature | -10 to +60 °C                                  |
| Output / protocol     | RS485 Modbus RTU                               |
| Response time         | ≤2 s                                           |
| Pressure limit        | 0.8 MPa maximum                                |

The family contains nine ranges; the range and NPT connection must be specified by the exact order code. Standard volume conditions: 25 °C and one atmosphere. Standard calibration gas: air.

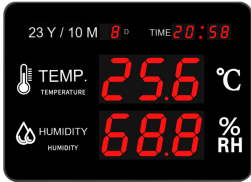
For dry, clean, non-corrosive gases only; excludes flammable or explosive gases. Repeatability: 0.5% FS; consumption: ≤1 W. The special Type-C connection is not a standard USB pinout.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-008. Source documentation is retained in the internal review register.

# AS208A



| Parameter             | Published value                   |
|-----------------------|-----------------------------------|
| Measurement range     | -40 to +80 °C / 0-99.9% RH        |
| Accuracy              | ±0.5 °C / ±3% RH                  |
| Power supply          | 5 V DC, 500 mA adapter            |
| Operating temperature | Not stated in the reviewed source |
| Output / protocol     | Not applicable                    |
| Resolution            | 0.1 °C / 0.1% RH                  |
| Current consumption   | ≤300 mA                           |
| Dimensions            | 270 × 195 × 25.7 mm               |

AS208A is the display-only version. AS208W (Wi-Fi) and AS208G (RS485) are different order codes.

Measurement range is not an independently specified enclosure operating-temperature rating.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-009. Source documentation is retained in the internal review register.

# AS206A



| Parameter             | Published value                   |
|-----------------------|-----------------------------------|
| Measurement range     | -40 to +80 °C / 0-99.9% RH        |
| Accuracy              | ±0.5 °C / ±3% RH                  |
| Power supply          | 5 V DC, 500 mA adapter            |
| Operating temperature | Not stated in the reviewed source |
| Output / protocol     | Not stated in the reviewed source |
| Resolution            | 0.1 °C / 0.1% RH                  |
| Current consumption   | ≤300 mA                           |
| Dimensions            | 270 × 195 × 25.7 mm               |

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-010. Source documentation is retained in the internal review register.

# AW3485A



| Parameter             | Published value            |
|-----------------------|----------------------------|
| Measurement range     | -20 to +60 °C / 0-99.9% RH |
| Accuracy              | ±0.3 °C / ±2% RH           |
| Power supply          | 9-36 V DC / USB 5 V        |
| Operating temperature | -20 to +60 °C              |
| Output / protocol     | RS485 / Modbus RTU         |
| Resolution            | 0.1 °C / 0.1% RH           |
| Sampling interval     | 2.5 s                      |
| Current consumption   | <50 mA                     |

The base AW3485A has no relay outputs. Relay outputs belong to the AW3485A-KC configuration.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-011. Source documentation is retained in the internal review register.

# AW3485M



| Parameter             | Published value            |
|-----------------------|----------------------------|
| Measurement range     | -20 to +60 °C / 0-99.9% RH |
| Accuracy              | ±0.3 °C / ±2% RH           |
| Power supply          | 9-36 V DC / USB 5 V        |
| Operating temperature | -20 to +60 °C              |
| Output / protocol     | RS485 / Modbus RTU         |
| Resolution            | 0.1 °C / 0.1% RH           |

Sampling interval is 2 s with external power and 5 s with the internal battery; battery configuration must be confirmed.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-012. Source documentation is retained in the internal review register.

# AW3020A



| Parameter             | Published value                   |
|-----------------------|-----------------------------------|
| Measurement range     | -20 to +60 °C / 0-99.9% RH        |
| Accuracy              | ±0.3 °C / ±2% RH (25 °C)          |
| Power supply          | 20-36 V DC                        |
| Operating temperature | Not stated in the reviewed source |
| Output / protocol     | 4-20 mA                           |
| Resolution            | 0.1 °C / 0.1% RH                  |

The published external-probe option extends the temperature range to -40 to +80 °C. Confirm the power and wiring requirements for the supplied variant.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-013. Source documentation is retained in the internal review register.

# AW3010A



| Parameter             | Published value                   |
|-----------------------|-----------------------------------|
| Measurement range     | Not stated in the reviewed source |
| Accuracy              | Not stated in the reviewed source |
| Power supply          | Not stated in the reviewed source |
| Operating temperature | Not stated in the reviewed source |
| Output / protocol     | 0-1 V DC / 0-5 V DC / 0-10 V DC   |

Select the output mode and scaling before connecting the controller.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-014. Source documentation is retained in the internal review register.

# AY3485



| Parameter             | Published value                   |
|-----------------------|-----------------------------------|
| Measurement range     | -40 to +80 °C / 0-99% RH          |
| Accuracy              | ±0.5 °C / ±3% RH (25 °C)          |
| Power supply          | 9-36 V DC                         |
| Operating temperature | Not stated in the reviewed source |
| Output / protocol     | RS485 / Modbus RTU                |
| Response time         | ≤120 s                            |

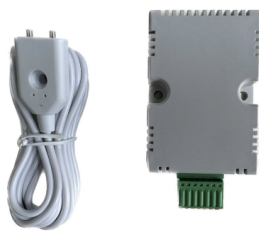
The reviewed manual documents the temperature/humidity configuration. Other environmental channels and their ranges require separate confirmation.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-015. Source documentation is retained in the internal review register.

# AW5485-SJ



| Parameter             | Published value                   |
|-----------------------|-----------------------------------|
| Measurement range     | Not stated in the reviewed source |
| Accuracy              | Not stated in the reviewed source |
| Power supply          | 9-24 V DC                         |
| Operating temperature | -20 to +60 °C                     |
| Output / protocol     | RS485 / Modbus RTU                |
| Medium                | Tap water                         |

The reviewed sheet specifies 0-80% RH for the transmitter electronics and 0.4 W for the RS485 configuration; the relay configuration is listed at 1.2 W.

Detection behavior must be evaluated with the actual liquid and cable. No measurement-accuracy figure is published in the reviewed sheet.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-016. Source documentation is retained in the internal review register.

# AFS485



| Parameter             | Published value                             |
|-----------------------|---------------------------------------------|
| Measurement range     | -40 to +80 °C / 5-100% RH                   |
| Accuracy              | ±0.5 °C (25 °C) / ±3% RH (30-90% RH, 25 °C) |
| Power supply          | 12-24 V DC                                  |
| Operating temperature | Not stated in the reviewed source           |
| Output / protocol     | RS485 / Modbus RTU                          |
| Resolution            | 0.1 °C / 0.1% RH                            |

The reviewed sheet describes waterproof construction but does not publish a numeric IP rating. Do not assume IP65 or IP67.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-017. Source documentation is retained in the internal review register.

# AS-131 series



| Parameter             | Published value                                             |
|-----------------------|-------------------------------------------------------------|
| Measurement range     | -100 kPa to 100 MPa                                         |
| Accuracy              | 0.5% FS (range $\geq 10$ kPa) / 1% FS (range $\leq 10$ kPa) |
| Power supply          | 12-36 V DC                                                  |
| Operating temperature | -20 to +85 °C                                               |
| Output / protocol     | 4-20 mA                                                     |
| Medium                | Liquid / gas                                                |
| Protection            | IP65 / IP54                                                 |

Range is a family selection envelope, not the span of one unit. Confirm order code, gauge/absolute/negative-pressure type and wetted-material compatibility.

Default output is 4-20 mA; specified voltage outputs, RS485 and 0.25% FS accuracy are configuration options, not simultaneous standard features.

Medium temperature: -10 to +70 °C. IP65 applies without display; IP54 with display. The published product is not explosion-proof.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-018. Source documentation is retained in the internal review register.

# AFM600



| Parameter             | Published value                               |
|-----------------------|-----------------------------------------------|
| Measurement range     | $\pm 100$ Pa / $\pm 1000$ Pa / $\pm 10000$ Pa |
| Accuracy              | $\pm 1\%$ FS                                  |
| Power supply          | Not stated in the reviewed source             |
| Operating temperature | Not stated in the reviewed source             |
| Output / protocol     | 4-20 mA / 0-5 V / 0-10 V / RS485 Modbus RTU   |
| Protection            | IP54                                          |
| Response time         | 0.5 / 1 / 2 / 4 s                             |

Supply voltage depends on the wiring/output configuration: 10-30, 12-30 or 16-30 V DC. Confirm the exact wiring diagram before power-up.

The source lists compensation temperature -10 to +60 °C and storage -20 to +70 °C; neither is labeled as the full operating-temperature rating.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-019. Source documentation is retained in the internal review register.

# AF3020A



| Parameter             | Published value                    |
|-----------------------|------------------------------------|
| Measurement range     | -40 to +80 °C (probe) / 0-99.9% RH |
| Accuracy              | ±0.3 °C / ±2% RH (25 °C)           |
| Power supply          | 20-36 V DC                         |
| Operating temperature | -20 to +60 °C (electronics)        |
| Output / protocol     | 4-20 mA                            |
| Resolution            | 0.1 °C / 0.1% RH                   |
| Current consumption   | <20 mA (no load)                   |

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-020. Source documentation is retained in the internal review register.

# AF3020



| Parameter             | Published value                   |
|-----------------------|-----------------------------------|
| Measurement range     | Not stated in the reviewed source |
| Accuracy              | Not stated in the reviewed source |
| Power supply          | 15-36 V DC                        |
| Operating temperature | Not stated in the reviewed source |
| Output / protocol     | 4-20 mA                           |

The manual lists selectable temperature spans 0 to +50 °C, -20 to +80 °C and -40 to +60 °C. Confirm the actual jumper setting and probe configuration.

The source also lists 12-24 V AC. Confirm the exact supplied revision before using AC; do not apply another AF3-series model's wiring or supply rating.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-021. Source documentation is retained in the internal review register.

# AQ3485Y



| Parameter             | Published value            |
|-----------------------|----------------------------|
| Measurement range     | -40 to +80 °C / 0-99.9% RH |
| Accuracy              | ±0.3 °C (25 °C) / ±2% RH   |
| Power supply          | 12-36 V DC                 |
| Operating temperature | -20 to +70 °C              |
| Output / protocol     | RS485 / Modbus RTU         |
| Resolution            | 0.1 °C / 0.1% RH           |

The source contains conflicting AC-supply statements. Use the confirmed DC configuration; do not assume AC compatibility.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-022. Source documentation is retained in the internal review register.

# AS109



| Parameter             | Published value                   |
|-----------------------|-----------------------------------|
| Measurement range     | -40 to +80 °C / 1-99.9% RH        |
| Accuracy              | ±0.3 °C / ±2% RH (25 °C)          |
| Power supply          | 9-36 V DC / USB 5 V               |
| Operating temperature | Not stated in the reviewed source |
| Output / protocol     | USB / RS485 Modbus RTU            |
| Resolution            | 0.1 °C / 0.1% RH                  |
| Sampling interval     | 2.5 s                             |

Accuracy is specified at 25 °C and 5 V, non-condensing; the source excludes hysteresis and nonlinearity from that figure.

The source also mentions AC power. Confirm the supplied revision before any AC connection.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-023. Source documentation is retained in the internal review register.

# AS105



| Parameter             | Published value                   |
|-----------------------|-----------------------------------|
| Measurement range     | -10 to +50 °C / 0-99.9% RH        |
| Accuracy              | ±0.5 °C (25 °C) / ±3% RH          |
| Power supply          | 3.7 V battery / USB 5 V           |
| Operating temperature | Not stated in the reviewed source |
| Output / protocol     | Not stated in the reviewed source |
| Resolution            | 0.1 °C / 0.1% RH                  |

The source gives differing instrument/environment temperature limits. Confirm the complete instrument operating rating; the optional external probe is listed at -40 to +80 °C.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-024. Source documentation is retained in the internal review register.

# AW5145W



| Parameter             | Published value                   |
|-----------------------|-----------------------------------|
| Measurement range     | -20 to +60 °C / 0-99.9% RH        |
| Accuracy              | ±0.5 °C / ±3% RH (25 °C)          |
| Power supply          | 9-36 V DC / USB 5 V               |
| Operating temperature | Not stated in the reviewed source |
| Output / protocol     | 2.4 GHz Wi-Fi / Modbus TCP        |
| Resolution            | 0.1 °C / 0.1% RH                  |
| Sampling interval     | 2 s                               |
| Current consumption   | ≤50 mA (24 V)                     |

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-025. Source documentation is retained in the internal review register.

# AO-03



| Parameter             | Published value                   |
|-----------------------|-----------------------------------|
| Measurement range     | 0-30% O2                          |
| Accuracy              | Not stated in the reviewed source |
| Power supply          | Not applicable                    |
| Operating temperature | 0 to +50 °C                       |
| Output / protocol     | 0.1 ±0.03 mA (air)                |
| Response time         | T90 <15 s                         |

0-30% O2 is the linear-output range; 30-100% O2 output is nonlinear. Recommended load: 45 ohms. Conditions: 20 °C, 50% RH, 1013 mbar, recommended circuit.

The sensing cell requires no external power; interface electronics still require their own supply. Observe the commissioning and air-calibration instructions.

Do not use in safety-protection or emergency-stop equipment without purpose-specific authorization. Do not solder the pins directly.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-026. Source documentation is retained in the internal review register.

# AHT30



| Parameter             | Published value            |
|-----------------------|----------------------------|
| Measurement range     | -40 to +120 °C / 0-100% RH |
| Accuracy              | ±0.5 °C / ±3% RH (typical) |
| Power supply          | 2.2-5.5 V DC               |
| Operating temperature | -40 to +120 °C             |
| Output / protocol     | I2C                        |
| Resolution            | 0.01 °C / 0.024% RH        |

Humidity accuracy is typical at 25 °C in clean air and excludes hysteresis and nonlinearity; maximum error depends on conditions. The humidity range is extended outside 8-85% RH; review the operating-condition guidance.

At 25 °C and 3.3 V, sleep current is ≤0.2 µA; measurement current is 570 µA typical and 600 µA maximum. Humidity response is 8-30 s (63%) at 25 °C and 1 m/s airflow; enclosure design affects response.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-027. Source documentation is retained in the internal review register.

# APT series



| Parameter             | Published value                                   |
|-----------------------|---------------------------------------------------|
| Measurement range     | Not stated in the reviewed source                 |
| Accuracy              | Not stated in the reviewed source                 |
| Power supply          | 24 V DC                                           |
| Operating temperature | -40 to +85 °C                                     |
| Output / protocol     | 4-20 mA / 0-5 V / 0-10 V / 1-5 V / 1-10 V / RS485 |
| Protection            | IP67                                              |
| Response time         | ≤50 ms                                            |

Select the pressure span and output with the order code. Published linearity is ±0.2% FS and repeatability is ±0.1% FS; neither establishes the complete measurement-accuracy specification.

Medium temperature: -40 to +85 °C. Confirm compatibility of the liquid or gas with SUS304 wetted metal. Do not use as a safety-protection or emergency-stop device without purpose-specific authorization.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-028. Source documentation is retained in the internal review register.

# AY3485-CO2



| Parameter             | Published value    |
|-----------------------|--------------------|
| Measurement range     | 400-5000 ppm CO2   |
| Accuracy              | ±50 ppm ±10%       |
| Power supply          | 9-36 V DC          |
| Operating temperature | -10 to +50 °C      |
| Output / protocol     | RS485 / Modbus RTU |
| Response time         | ≤120 s             |
| Current consumption   | <85 mA             |

The source writes CO2 accuracy as ±50 ppm ±10% without stating the percentage basis. Confirm the complete accuracy definition before comparison or design approval.

Operating humidity: 0-85% RH, non-condensing; working pressure: 0.9-1.1 atm. Warm-up: 2 min for use, 10 min for maximum accuracy. Consumption: ≤1.2 W at 12 V DC and 25 °C.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-029. Source documentation is retained in the internal review register.

# APW series



| Parameter             | Published value                   |
|-----------------------|-----------------------------------|
| Measurement range     | Not stated in the reviewed source |
| Accuracy              | Not stated in the reviewed source |
| Power supply          | 24 V DC                           |
| Operating temperature | -40 to +85 °C                     |
| Output / protocol     | Not stated in the reviewed source |
| Protection            | IP67                              |
| Response time         | ≤50 ms                            |

Select the level range, output and wetted materials with the exact order code. Published linearity is  $\pm 0.2\%$  FS and repeatability is  $\pm 0.1\%$  FS; these are not a complete accuracy specification.

The source lists PTFE, 316L or SUS304 variants. Confirm liquid compatibility, cable protection and installation depth before immersion. Do not assume every configuration has identical chemical resistance.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-030. Source documentation is retained in the internal review register.

# AGP3000



| Parameter             | Published value                                  |
|-----------------------|--------------------------------------------------|
| Measurement range     | 0.05-120000 Pa                                   |
| Accuracy              | ±50% / ±15% / ±0.5% reading (pressure dependent) |
| Power supply          | 12-28 V DC                                       |
| Operating temperature | 0 to +40 °C                                      |
| Output / protocol     | RS485 Modbus RTU / 0-10 V                        |
| Response time         | ≤300 ms                                          |

This summary covers AGP3000 in the AGP3 family. Accuracy bands: ±50% reading at 0.05-0.1 Pa, ±15% at 0.1-15000 Pa, and ±0.5% at 15000-120000 Pa. Values are typical after calibration in nitrogen at room temperature.

Pressure range applies to nitrogen and air. Confirm the gas and exact order code. Warm-up: 60 s; pressure load: 130 kPa; connection: KF16. The analog pressure conversion is logarithmic, not a simple linear pressure scale.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-031. Source documentation is retained in the internal review register.

# AS-TDS-7001 series



| Parameter             | Published value                                    |
|-----------------------|----------------------------------------------------|
| Measurement range     | L: 0.01-20; M: 0.1-200; H: 1-2000 $\mu\text{S/cm}$ |
| Accuracy              | $\pm 2\%$ FS (conductivity) / $\pm 3$ °C           |
| Power supply          | Not stated in the reviewed source                  |
| Operating temperature | 0 to +50 °C                                        |
| Output / protocol     | Not stated in the reviewed source                  |
| Protection            | IP68                                               |
| Pressure limit        | $\leq 5$ bar                                       |

Electrode constants are  $K=0.01$  for L,  $K=0.1$  for M and  $K=1.0$  for H. Temperature range: 0-50 °C. Standard compensation elements are Pt1000 for L/M and NTC 10K for H; confirm options before selecting a transmitter.

This is an electrode, not a complete powered digital transmitter. Confirm the measurement circuit, calibration, cable and compatible medium. The G3/4 probe openings must be properly immersed according to the installation instructions.

Confirm the exact order code, source revision and supplied configuration before design approval. Published values are not independent DZKJ test results.

Technical support: <https://dzkjair.com/en/technical>

Evidence trace: DZKJ-TECH-032. Source documentation is retained in the internal review register.

# Warehouse temperature and humidity monitoring

Engineering reference, not a completed customer case study.

Representative points -> AW3485A -> RS485 gateway -> monitoring host -> alarms and records.

Place sensors at representative storage locations, away from doors, direct sunlight and local heat sources. Determine the point count through site mapping, not floor area alone.

AW3485A publishes RS485 Modbus RTU, a 2.5 s sampling interval, 9-36 V DC or USB 5 V supply, and accuracy of  $\pm 0.3\text{ }^{\circ}\text{C}$  /  $\pm 2\%$  RH. Check wiring and the ordered variant before installation.

Use unique device addresses and validate bus polarity, grounding, termination and gateway settings. The base AW3485A does not include the relay outputs of the AW3485A-KC variant.

Commission by comparing readings with a traceable reference, simulating communication loss and checking alarm delivery and record timestamps. Retention and alert rules are project requirements, not guaranteed product functions.

# Liquid-cooling flow monitoring

Engineering reference, not a completed customer case study.

Cooling loop -> flow sensor -> controller -> validation.

Compare AFD2, AFD4020 / AFD4040 / AFD4100 and AFD5004 / AFD5250 against the required minimum and maximum flow. Do not transfer the pressure, supply or output specifications between series.

Confirm coolant compatibility, wetted materials, seals, connector size, medium temperature and allowable pressure drop. A water specification does not establish compatibility with every glycol mixture or cleaning fluid.

Follow the exact model's flow-direction and installation instructions. Evaluate the assembled pipework for bubbles, pulsation, restrictions and contamination before setting operating thresholds.

Validate readings at several flow points with a suitable reference. Test loss of signal and low-flow detection in the controller; a monitoring sensor is not a certified safety interlock.

# Temperature and humidity enclosure design

Provide air exchange between the sensing element and measured environment. Minimize trapped air around the sensor.

Separate the sensor from PCB heat, displays and nearby electronics. Evaluate the assembled device for local heating, solar radiation and response delay.

Choose protection for the actual contamination and moisture conditions. Verify response time in the finished enclosure. Follow model-specific handling, assembly and storage instructions.

# Gas-flow integration checklist

Confirm the selected model's compatible gas, calibration gas, flow range, pressure limits and temperature. A flow meter and a flow controller are different functions.

Follow exact-model installation guidance. Evaluate restrictions, bends and contamination using suitable reference equipment.

Verify supply, pin assignment, interface and scaling. Validate communication before final integration. The AS200/AS200B protocol-family document does not establish identical measurement specifications.

# OEM / ODM project review workflow

A documented evaluation path, with scope and acceptance criteria agreed for each project.

Application, medium, range, accuracy, environment, interface and target quantity.

Confirm the order code, pinout, mechanical fit, labeling and available documentation.

Agree on reference equipment, test conditions and pass / fail criteria before testing.

Approve the final specification, revision, inspection requirements and delivery plan.

Factory photographs, production capabilities and completed-test claims require ownership or publication authorization and appropriate evidence.

# Project-documentation and compliance review

Request evidence for the exact model, applicant and destination market. No blanket CE, FCC, RoHS or ISO 9001 certification is claimed for this catalog.

Check the declaration or report, covered model, applicant, applicable requirements and revision.

Check the material declaration or test report against the supplied configuration.

Check the certificate holder, manufacturing-site scope, validity and issuer. A management-system certificate is not a product approval.