

## General information

PWS38220241015

The DAT 700 weight transmitter rewrites the concept of high performance at a small price. This weight transmitter is practical, compact, and configurable via panel keys or the Optimization software, which can ensure configuration upload and download, as well as real-time filter viewing. The DAT 700 weight transmitter is available in serial and/or analog versions, or as a bipolar version. Various Fieldbus are available through an external module. **The load cells that can be connected to this transmitter are analog and/or amplified in voltage and current.**



Software Optimization 1.8.29: [optimization\\_weighing\\_software.zip](#)

Technical Manual: [dat-700\\_technical\\_manual.pdf](#)

Installation Manual: [dat-700\\_installation\\_manual.pdf](#)

All indicated data may be changed without notice.  
All the measures indicated are expressed in millimeters (mm).

## Technical specifications

PWS38220241015

|                                   |  |
|-----------------------------------|--|
| <b>Power supply:</b>              | 10-30VDC protected against reverse polarity. Protection with resettable fuse                                 |
| <b>Insulation:</b>                | Class II   |
| <b>Operating temperature:</b>     | -10°C ± +40°C (max. non-condensing humidity 85%)   |
| <b>Storage temperature:</b>       | -20°C ± +60°C  |
| <b>Display:</b>                   | numerical 6-digit red 7-segment led (h 14 mm)  |
| <b>Dimensions:</b>                | 96 mm x 48 mm x 100 mm (w x h x d) (terminal blocks included)  |
| <b>Material:</b>                  | self-extinguishing PPO (UL 94 V0)  |
| <b>Electrical connection:</b>     | removable screw 5.08 mm pitch terminal blocks  |
| <b>Cell input:</b>                | max 8 of 350 ohms in parallel  |
| <b>Operating voltage:</b>         | 5Vdc (cell input), ± 10 V / ± 5 V (analog voltage output), 0 ± 20 mA / 4 ± 20 mA (current analog output)     |
| <b>Output linearity:</b>          | < 0.01% of full scale (cell input), 0.03% of full scale (current analog & analog voltage output)             |
| <b>Temperature drift (Input):</b> | < 0.001% of full scale / °C (cell input), 0.002% of full scale / °C (current analog & analog voltage output) |
| <b>Internal Resolution:</b>       | 24 bits (cell input), 16 bits (both current analog and analog voltage output)                                |
| <b>Measuring range:</b>           | from -7.6 mV/V to +7.6 mV/V  |
| <b>Filter:</b>                    | selectable 0.1 Hz - 1000 Hz  |
| <b>Decimal figures range:</b>     | 0 to 4 decimal digits  |
| <b>Logic output:</b>              | 2 photo relay outputs (24 VDC/Vac one NO contact) Relay contact rating 100 mA                                |
| <b>Logic input:</b>               | No. 2 opto-isolated  |
| <b>Serial port:</b>               | Rs232 half duplex, Rs485 half-duplex, USB Device for instrument programming and setting                      |
| <b>Baud rate:</b>                 | Up to 115 kb/s (default 9600 b/s)  |
| <b>Fieldbus:</b>                  | PROFIBUS DP-V1, PROFINET, CANOPEN, ETHERNET IP, ETHERCAT, ETHERNET (with external module)                    |
| <b>Calibration:</b>               | Digital from buttons (both current and analog voltage output)  |
| <b>Impedance:</b>                 | minimum 10K Ohm (current analog output), maximum 300 Ohm (analog voltage output)                             |
| <b>Microcontroller:</b>           | 32-bit ARM Cortex M0+, 256KB Flash reprogrammable on-board by USB  |
| <b>Data storage:</b>              | 32 Kbytes + optional Aliby memory (1MByte)   |
| <b>Regulatory compliance:</b>     | EN61000-6-2, EN61000-6-3 for EMC, EN61010-1 for Electrical Safety  |

All indicated data may be changed without notice.  
All the measures indicated are expressed in millimeters (mm).

| Product Code | Product Model                                   |
|--------------|---|
| PSDA0070     | DAT 700 BASIC                                   |
| PSDA0700     | DAT 700 ANALOG                                  |
| PSDA7001     | DAT 700 PROFIBUS                                |
| PSDA7002     | DAT 700 PROFINET                                |
| PSDA7003     | DAT 700 ETHERNET IP                             |
| PSDA7004     | DAT 700 ETHERNET                                |
| PSDA7005     | DAT 700 ETHERCAT                                |
| PSDA7006     | DAT 700 CANOPEN                                 |
| PSDA7007     | DAT 700 ANALOG + PROFIBUS                       |
| PSDA7008     | DAT 700 ANALOG + PROFINET                       |
| PSDA7009     | DAT 700 ANALOG + ETHERNET IP                    |
| PSDA7010     | DAT 700 ANALOG + ETHERNET                       |
| PSDA7011     | DAT 700 ANALOG + ETHERCAT                       |
| PSDA7012     | DAT 700 ANALOG + CANOPEN                        |
| PSDA7013     | DAT 700 version INPUT VOLT BASIC                |
| PSDA7014     | DAT 700 version INPUT VOLT ANALOG               |
| PSDA7015     | DAT 700 version INPUT VOLT PROFIBUS             |
| PSDA7016     | DAT 700 version INPUT VOLT PROFINET             |
| PSDA7017     | DAT 700 version INPUT VOLT ETHERNET IP          |
| PSDA7018     | DAT 700 version INPUT VOLT ETHERNET             |
| PSDA7019     | DAT 700 version INPUT VOLT ETHERCAT             |
| PSDA7020     | DAT 700 version INPUT VOLT CANOPEN              |
| PSDA7021     | DAT 700 version INPUT VOLT ANALOG + PROFIBUS    |
| PSDA7022     | DAT 700 version INPUT VOLT ANALOG + PROFINET    |
| PSDA7023     | DAT 700 version INPUT VOLT ANALOG + ETHERNET IP |
| PSDA7024     | DAT 700 version INPUT VOLT ANALOG + ETHERNET    |
| PSDA7025     | DAT 700 version INPUT VOLT ANALOG + ETHERCAT    |
| PSDA7026     | DAT 700 version INPUT VOLT ANALOG + CANOPEN     |
| PSDA7027     | DAT 700 version INPUT mA BASIC                  |
| PSDA7028     | DAT 700 version INPUT mA ANALOG                 |
| PSDA7029     | DAT 700 version INPUT mA PROFIBUS               |

All indicated data may be changed without notice.  
 All the measures indicated are expressed in millimeters (mm).

| Product Code | Product Model   |
|--------------|---|
| PSDA7030     | DAT 700 version INPUT mA PROFINET                       |
| PSDA7031     | DAT 700 version INPUT mA ETHERNET IP                    |
| PSDA7032     | DAT 700 version INPUT mA ETHERNET                       |
| PSDA7033     | DAT 700 version INPUT mA ETHERCAT                       |
| PSDA7034     | DAT 700 version INPUT mA CANOPEN                        |
| PSDA7035     | DAT 700 version INPUT mA ANALOG + PROFIBUS              |
| PSDA7036     | DAT 700 version INPUT mA ANALOG + PROFINET              |
| PSDA7037     | DAT 700 version INPUT mA ANALOG + ETHERNET IP           |
| PSDA7038     | DAT 700 version INPUT mA ANALOG + ETHERNET              |
| PSDA7039     | DAT 700 version INPUT mA ANALOG + ETHERCAT              |
| PSDA7040     | DAT 700 version INPUT mA ANALOG + CANOPEN               |
| PSDA7041     | DAT 700 ANALOG bipolar                                  |
| PSDA7042     | DAT 700 ANALOG bipolar + PROFIBUS                       |
| PSDA7043     | DAT 700 ANALOG bipolar + PROFINET                       |
| PSDA7044     | DAT 700 ANALOG bipolar + ETHERNET IP                    |
| PSDA7045     | DAT 700 ANALOG bipolar + ETHERNET                       |
| PSDA7046     | DAT 700 ANALOG bipolar + ETHERCAT                       |
| PSDA7047     | DAT 700 ANALOG bipolar + CANOPEN                        |
| PSDA7048     | DAT 700 version INPUT VOLT ANALOG bipolar               |
| PSDA7049     | DAT 700 version INPUT VOLT ANALOG bipolar + PROFIBUS    |
| PSDA7050     | DAT 700 version INPUT VOLT ANALOG bipolar + PROFINET    |
| PSDA7051     | DAT 700 version INPUT VOLT ANALOG bipolar + ETHERNET IP |
| PSDA7052     | DAT 700 version INPUT VOLT ANALOG bipolar + ETHERNET    |
| PSDA7053     | DAT 700 version INPUT VOLT ANALOG bipolar + ETHERCAT    |
| PSDA7054     | DAT 700 version INPUT VOLT ANALOG bipolar + CANOPEN     |
| PSDA7055     | DAT 700 version INPUT mA ANALOG bipolar                 |
| PSDA7056     | DAT 700 version INPUT mA ANALOG bipolar + PROFIBUS      |
| PSDA7057     | DAT 700 version INPUT mA ANALOG bipolar + PROFINET      |
| PSDA7058     | DAT 700 version INPUT mA ANALOG bipolar + ETHERNET IP   |
| PSDA7059     | DAT 700 version INPUT mA ANALOG bipolar + ETHERNET      |
| PSDA7060     | DAT 700 version INPUT mA ANALOG bipolar + ETHERCAT      |
| PSDA7061     | DAT 700 version INPUT mA ANALOG bipolar + CANOPEN       |

All indicated data may be changed without notice.  
 All the measures indicated are expressed in millimeters (mm).