# Weight Transmitter **DAT 700 Aanalog + Profinet**

## General information

PWS38720261125

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 Optimation 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 Optimation 1.11.22: optimation_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).

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Industrial Electronic Weighing Systems since 1963

# Technical specifications

PWS38720261125

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

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| 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 |

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| 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 |

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