

# DAD 142.x

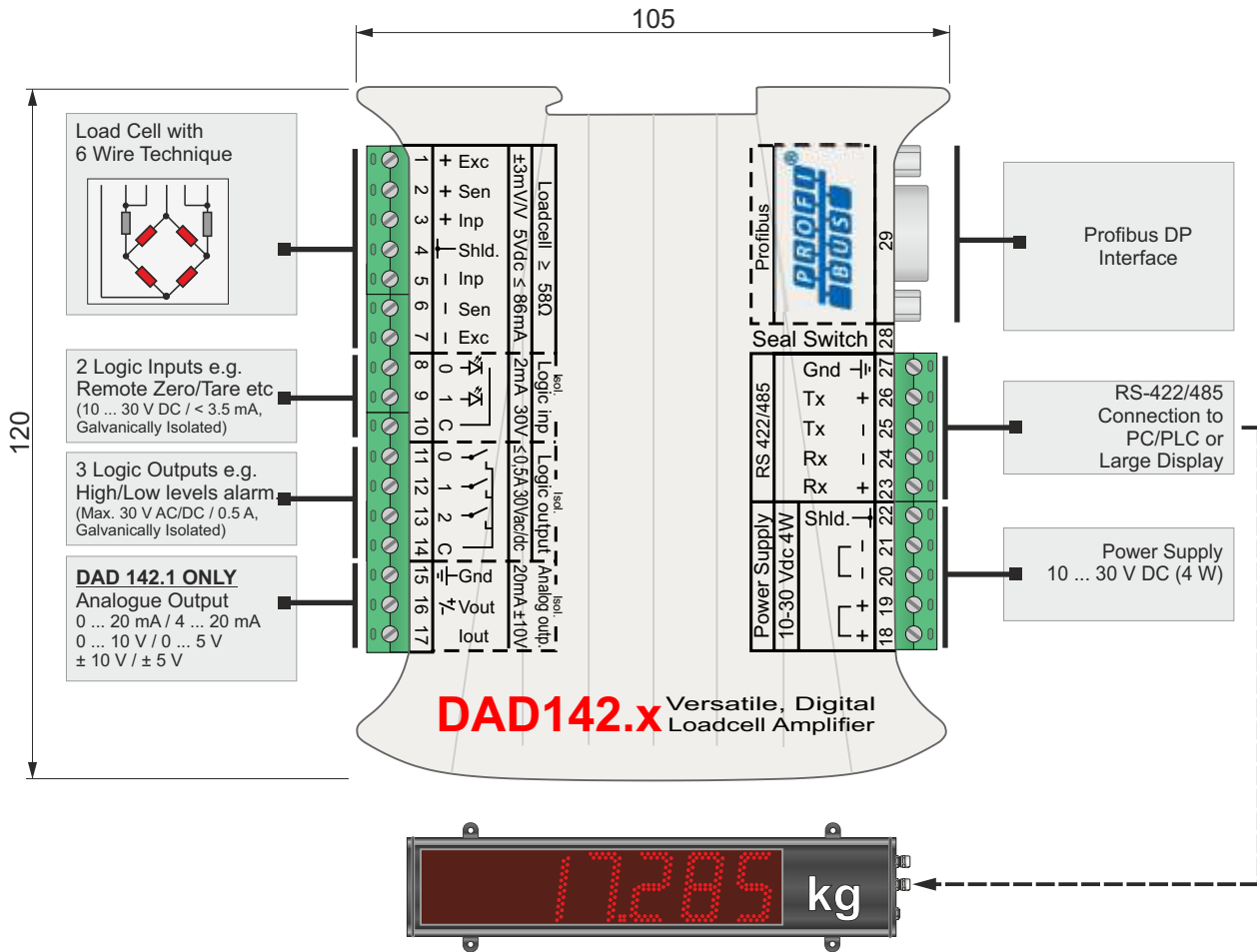
Digital Amplifier with Profibus Interface & Setpoints

**SENSOR**  
TECHNIQUES LIMITED



## High Speed, Precision Digital Amplifier with Profibus Interface and Setpoints

- Can be calibrated directly from load cell mV/V sensitivity
- 19 bit resolution ADC 600 readings per second
- Linearity better than 0.001% signal resolution ~50nV
- Designed to drive six 350 Ohm Load Cells  $\pm 3.0$  mV/V max.
- Digital display maximum -99,999 to +99,999 counts
- Profibus DP & RS-422/RS-485 Interfaces
- 2 Optically Isolated Logic Inputs
- 3 Optically Isolated Logic outputs
- Supply voltage from 10- 30 VDC
- Din rail mounting
- Analogue Output (Model DAD 142.1 only)



All Dimensions in mm  
Specifications are subject to change without prior notice

Specification

Linearity	: <0.001 %
Bridge Supply Voltage	: 5 V DC, 6 wire technique, min. 58 Ohm or 6 x 350 Ohm load cells in parallel
Input Signal Range	: ± 3 mV/V, Resolution 0,05 µV/d ~ 200.000 d at 2 mV/V
Signal Filter	: IIR Filter (19.7 ... 2.5 Hz) or FIR Filter(18 ... 0.25 Hz) selectable
Digital Display	: 6 Digit, 5.1 mm LED and 8 Status LED's
ADC Resolution	: 19 Bit A/D Converter, 600 Readings/Second
Digital Logic Inputs	: 2 optically isolated; 10 ... 30 V DC <3.5 mA, for external control (remote tare etc.)
Digital Logic Outputs	: 3 optically isolated , maximum load 30 V DC / 0.5 A
Computer Interfaces	: 2 wire RS485 or 4 wire RS422, not isolated, 9.600 ... 115.200 baud Bus address from 0 ... 255 for up to 32 devices on a bus, Profibus DP (9 way D type)
Analogue Output (DAD 142.1 only)	: 0 ... 20 mA / 4 ... 20 mA / 0 ... 10 V / 0 ... 5 V / +/- 10 V / +/- 5 V, 14-Bit-DAC, freely programmable to follow the Gross, Net, Max, Min or Average weight values
Temperature Effect	: <4 ppm/°C on the Zero point and <8 ppm/°C on the Span reading
Temperature Range	: -10 °C ... +55 °C
Housing	: PCB housed in a plastic case (PC/ABS), IP40, DIN Rail Mounting (TS 35)
Dimensions	: 120 x 105 x 22.5 mm, Weight approximately 170 g
Supply Voltage	: 10 ... 30 V DC, max. 4 Watt
EMC / Approvals	: 2004/22/EC MID E2; CE to 2011/77/EC, 2004/108/EC
Test Certificate - Pending	: OIML R-76: 2006 Class III & IIII: 10,000 e; e = 0.2 µV/VS I Approval Number DK0199.422

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