

DAD-142.2 weight indicator



product description

Type DAD 142.2 is a powerful and economical state-of-the-art electronic device for any weighing and filling operation. The basic device provides already all communication interfaces that are needed for industrial weighing, control and registration, i.e. Profibus, RS422/485 and digital I/O for direct control of valves or bars etc.

The application setup including calibration can be stored non-volatile in the EEPROM. The setup can easily be restored in the DAD 142.2.

The digital amplifier is a stand-alone device for 35 mm DIN rail mounting. The device meets all EMC requirements according to MID 2. The application for the OIML R76 approval has been submitted to an European Notified Body and shall be approved by the end of 2016.

applications

Universal process weighing systems and process automation & control applications.

accessories

Graphical setup and analysis software running under MS Windows

Setup and analysis software for smartphones (Android OS)

key features

EU Type approval: 10,000 intervals

Linearity better than 0.001 %

Load cell excitation 5VDC up to 6 load cells at 350Ω or 18 load cells 1,100Ω

6-wire technology

Calibration with weight or in mV/V

Max. conversion rate: 600 updates/s

Digital filters, programmable

Local display

Serial interface RS422/485

Profibus interface

2 digital inputs (isolated), 3 digital outputs (isolated)

Power supply 10...30VDC

DIN rail mounting TS35



RoHS
compliant



 **flintec**
quality + precision

specifications

Model name	DAD 142.2
Accuracy	III
Test certificate according OIML R76	EU Type approved for 10,000 intervals (in progress)
AD converter	Delta-Sigma \pm 24 bit
Analogue input range	15mV to +15mV (\pm 3mV/V at 5 VDC excitation)
Minimum input sensitivity	0,2 μ V/e (legal for trade)-in process; 0,05 μ V/d (not legal for trade)
Linearity	< 0.001% FS
Temperature effect	< \pm 4 ppm/ $^{\circ}$ C (typical < \pm 2 ppm/ $^{\circ}$ C) < \pm 8 ppm/ $^{\circ}$ C (typical < \pm 4 ppm/ $^{\circ}$ C)
Excitation	5VDC; > 50 Ω (up to 6 load cells at 350 Ω or 18 load cells at 1,100 Ω parallel connected); 6-wire technology
Conversation rate	up to 600 values/s
Resolution rate	\pm 600,000 counts @ \pm 3 mV/V input signal

Calibration & Weighing Functions

Calibration	Electronical calibration in mV/V (eCal) or with test weight(s)
Digital low pass filter	FIR Filter 2.5 to 19.7Hz or IIR Filter 0.25 to 18Hz - adjustable in 8 steps
Weighing functions	Zero, gross, tare, net, filter, etc.
Application modes	None automatic weighing instrument (NAWI) or triggered measurement

Communication & Setup

Communication ports	RS422/485 and Profibus
Setup & Calibration	Panel buttons or Windows software 'DOP 4' or smartphone App 'AnDOP'
Display	6 digit 7 segments, green LED's, 5.08mm, 8 status LED green, spectral filter 565nm for improved contrast
Keyboard	4 pcs, \varnothing 3mm robust, for setup / calibration, zero, tare

Power Supply

DC power supply	10...30 VDC, 1...4W
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Environmental Conditions

Operating temperature	-15°C to +55°C at maximal 85% rh, non-condensing
Storage temperature	-30°C to +70°C
Enclosure & protection	Plastic housing, for DIN rail mount (TS35) , protection IP40
Dimension and weight	105 x 120 x 22.5mm (L x H x B); weight approx. 170g
EMC performance	EN61326 according to MID E2 for industrial applications (in full accordance with 2004/22/EC)
Vibration resistance	2.5g @ operation, 5g @ storage

Interface

Serial Interface	RS422/485, 9600 ... 115200 Baud (8N1), half/full duplex
Protocol & address range	ASCII; address range 1 ... 255
Modbus RTU	Binary data
Profibus- Interface	DB9 female, connection to Profibus DP network
Protocol	DP-V0
Speed	9.8 kit/s up to 12 Mbit/s (automatic)
Address range	1 to 127

Digital In-/Outputs

Digital inputs	2 inputs (10 – 30V, 1 – 3mA), command ground, isolated
Digital outputs	3 outputs (semiconductor relays) 30 V DC/AC, 0.5 A, common ground, isolated

Dimensions and specifications are subject to change without notice.