DAD142.2 weight indicator

product description

Type DAD142.2 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 DAD142.2.

The digital amplifier is a stand-alone device for 35 mm DIN rail mounting. The device meets all EMC requirements according to MID 2.

applications

Universal process weighing systems and process automation & control applications.

accessories

Graphical setup and analysis software running under MS Windows

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

CE RoHS compliant OIML IP40

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specifications

Model name	DAD142.2
Accuracy	III
Test certificate according OIML R76	EU Type approved for 10,000 intervals (in progress)
AD converter	Delta-Sigma ± 24 bit
Analogue input range	15mV to +15mV (± 3mV/V at 5 VDC excitation)
Minimum input sensitivity	0,2 µV/e (legal for trade)-in process; 0,05 µV/d (not legal for trade)
Linearity	< 0.001% FS
Temperature effect	< ±4 ppm/°C (typical < ±2 ppm/°C) < ±8 ppm/°C (typical < ±4 ppm/°C)
Excitation	5VDC; > 50Ω (up to 6 load cells at 350Ω or 18 load cells at 1,100Ω parallel connected); 6-wire technology
Conversation rate	up to 600 values/s
Resolution rate	±600,000 counts @ ±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, Ø 3mm robust, for setup / calibration, zero, tare

Power Supply

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

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.