

Correction system for Scales with variable Weigher Inclination



- Suited for any scales such as belt weighers or platform scales
- Angle range: +/- 0° to +/- 16°
- Robust structure, IP 65

Application

The inclination correction system VME 28061 is used for correcting the measuring signal of a weighing unit if the inclination is variable. It is preferred for use with belt weighers.

Structure

The device measures the inclination electronically and in accordance with the inclination corrects the signal of the load cell. It is installed in an IP 65 enclosure. The device is mounted at a location with the same inclination as the scale to be corrected. The system is roughly aligned at the scale. Fine tuning is done electronically.

Function

An inclined scale only measures a weight of the mass to be measured that is reduced by the cosine of the angle. The VME 28061 corrects this fault on the electrical output of a strain gauge load cell. The correct functions are not depending upon the load cell model and number nor the design of the electronic measuring unit as long as the electronic supplies the load cell with max. 12 V.

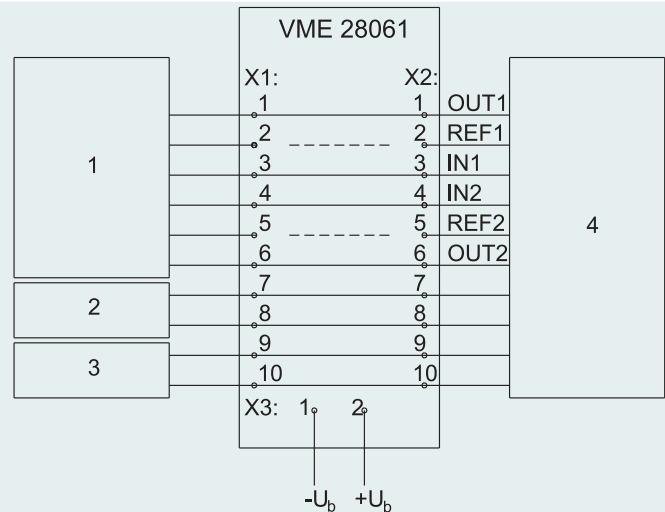
Uncorrected readings of inclined scales

| Inclination | Reading error |
|-------------|---------------|
| 2,5° | -0,1% |
| 5,0° | -0,4% |
| 10,0° | -1,5% |
| 15,0° | -3,4% |
| 20,0° | -6,0% |

Technical Specifications

| | |
|--|---|
| Inclination range | -16° ... + 16° to the horizontal |
| Residual correction error in the operating temperature range | < 0.05% of the load cell measured reading |
| Power supply | 18 ... 36 VDC (isolation is realised in the VME 28061) |
| Load cell supply voltage | 12 Vpp AC or DC max. |
| Operating temperature range | -25°C ... +60°C Avoid direct sunlight |
| Storage temperature range | -40°C ... +80°C |
| Signal wire cable cross-section | Max. 1.5 mm ² |
| Supply voltage cable cross-section | Max. 2.5 mm ² |
| Protection class | IP 65 |
| Dimensions W x H x D (cable inlets not considered) | 122 x 120 x 90 mm |
| Weight | 1500 g |
| Approbation | CE |

Example of how to connect VME 28061



| | |
|---|---------------------|
| 1 | Load cell |
| 2 | Tachometer 1 |
| 3 | Tachometer 2 |
| 4 | Control electronics |

Dimension

