

Correction system for Scales with variable Weigher Inclination



Suited for any scales such as belt weighers

- Inclination correction: to ± 29°
- Robust structure, IP65

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 IP65 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 %

Note:

If the scale inclines with no corrective mechanism this will falsify the dead load measurement. This also will cause absolute measuring errors when determining the payload.

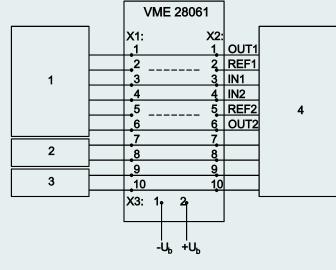
Technical Specifications

Inclination range	-29° +29° from the horizontal in exactly one plane of inclination
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	IP65
Dimensions W x H x D [mm] (cable inlets not considered)	122 x 120 x 90
Weight	1500 g
Approbation	CE

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



