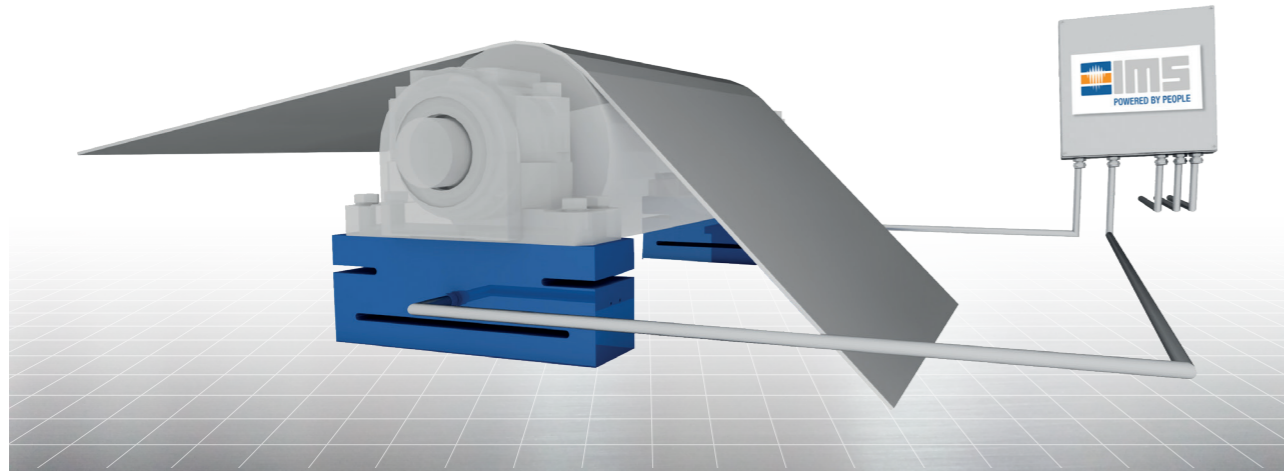


Force Measuring System Strip- / Web-tension Meter

IMS force measuring systems measure strip tension continuously and in real time.

Strain-gauge based force transducers are mounted underneath the bearing housings to measure the reaction force as a function of the wrap angle of the measuring roll.

Optional wrap angle compensation is available for use of a strip tension measuring system to control strip tension during coil winding.



Measurement Task

- measurement of the horizontal or vertical force
- calculation of the strip tension in dependence on the wrap angle

Special Features

- maintenance and wear free
- long service life
- small, compact and customised
- high dynamics and fast reaction to load changes
- high measuring accuracy and stability
- designed for up to 20-fold overload
- installation in virtually any environment due to hermetically sealed measuring body
- all common standard interfaces available
- sensors from other manufacturers can be adapted
- easy installation and commissioning due to the integrated calibration system and the electronic data sheet (EDS)

Force Transducer HMK / VMK

Nominal sensitivity:	0.5 mV/V
Non – Repeatability / – Linearity:	≤ 0.05 % / ≤ 0.2 %
Zero drift:	≤ 50 ppm / °C
Limit – / Breaking – load:	800 % / 1,200 %
Operating temperature / Protection class:	-10 ..+80 °C / IP67
EDS (Electronic Data Sheet):	yes

Measuring Amplifier MMV

Input channels:	2 optionally 4
Permitted bridge resistance:	≥ 175 Ω
Excitation voltage / Measuring range per channel:	0..15 VDC / ± 0.125..2 mV/V (programmable)
Resolution A/D (input) – / D/A (output) converter:	± 32,767 digit
Sampling rate per channel:	up to 1,000 per second
Length of transducer cable:	≤ 30 m
Operating temperature / Protection class:	-10 ..+60 °C / IP65
EDS (Electronic Data Sheet) Function:	yes
Wide range of fieldbus modules available:	EtherCat, Profibus-DP, Profinet, Ethernet I/P (others on request)
Analog outputs:	2 (current ± 20 mA or voltage ± 10 V)
Digital in- / output:	each 4
Operating voltage (mains voltage):	24 VDC (0,2 A) optionally 85-264 VAC 50-60 Hz (0,8 A)