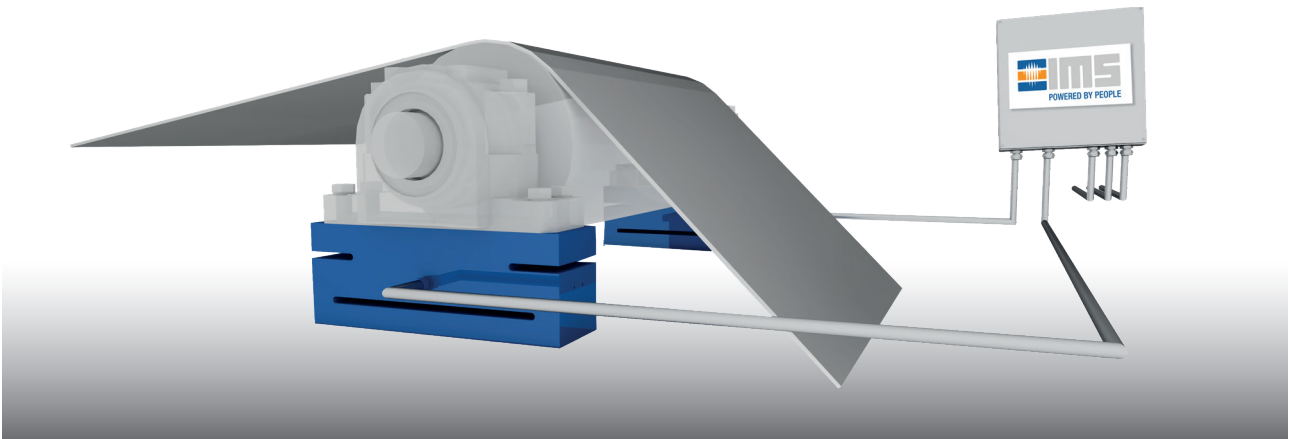


Force Measurement System Strip- / web- tension meter

IMS force measurement systems measure strip tension continuously and in real time. Strain-gauge based force transducers are mounted below the bearing housings to measure the reaction force as a function of the wrap angle of the measuring roll.

There is optionally the possibility of wrap angle compensation for use of a strip tension measuring system to control the strip tension during winding of the coil.



Measuring Task

- measuring the horizontal or vertical force
- calculation of the strip tension depending on the wrap angle

Special Features

- maintenance- and wear-free
- long service life
- small, compact and custom-made
- high dynamics and fast response to load changes
- high measuring accuracy and stability
- designed for up to 20 times overload
- installation in practically any environment through hermetically sealed measurement bodies
- all common standard interfaces available
- sensors of other manufacturers adaptable
- 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:	± 3.2767 (16 Bit) digit
Sampling rate per channel:	up to 1000 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)