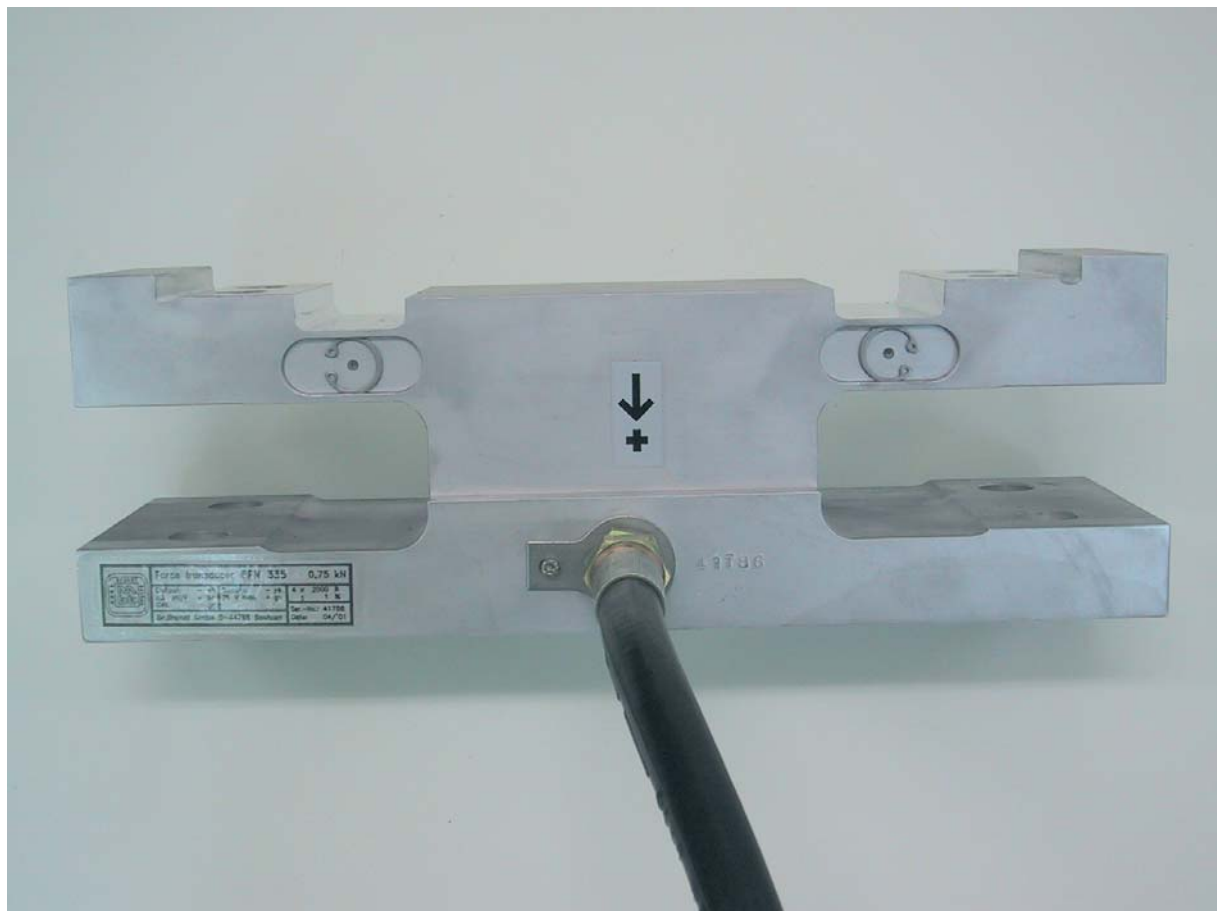


Strip Tension Sensor VBZ

Measuring direction is vertical to mounting level



Purpose

Measuring of force components is vertical to mounting level.

Functioning

Measuring of bending, shear or upset by means of strain gauges.

Advantages

- Insensitive to affecting forces that are right-angled staggered towards the measuring axis' position.
- Fast response to load changes.
- Direct mounting of the pillow block without insert plates, with or without fitting, customized projected.
- As a standard it can be overloaded up to 8-times of nominal load without metrological damage; 12-times until break-point; optional up to 24-times overloadable.
- High contraction stiffness of the sensor-body in direction of the measuring-axis, typical contraction distance at nominal load < 0.025 mm, practically no contraction in other levels, provides smoothest operation of

the turn-rollers as well as string movement stability.

- Insensitive to lateral forces that occurs due to strip tension and height of the roller-axis above the mounting level.
- Integrated calibration norm for monitoring the entire signal-path and calibration.

Assembly

VBZ- Sensors consist of 2 parallel plates, that are connected either by a center measuring zone and 2 bridges or by 2 end- measuring zones.

The dimensions are designed corresponding to the size of the pillow block housing and the sensors nominal load and can be modified for specific use if the need should arise.

The signal wire is firmly attached, led out at the front side and can be protected by a hydraulic hose if necessary.

Use

In strip tension measuring installations between pillow blocks of return pulley and their mounting base.

Specification

Bridge-resistor nominal	1000
Bridge-resistor actual value	see test certificate
Charge Voltage	35 VDCmax
Color of wire	-yellow +brown

Nominal characteristic value=	0.5 mV/V Standard
Output signal at nominal load	0.2 mV/V, 0.25 mV/V
Special characteristic value (Optional)	- white + green
Color of wire	

Calibration resistor	installed
Color of wire	gray

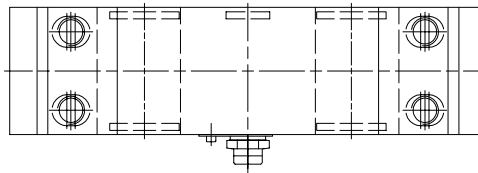
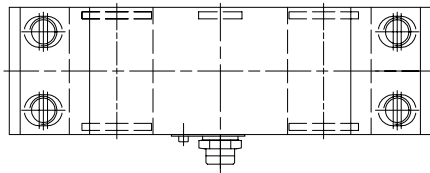
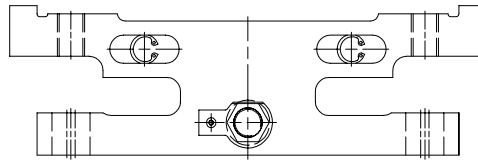
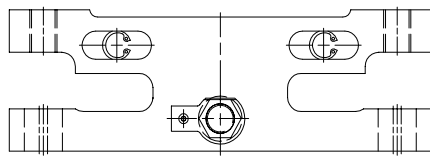
Length of wire	2.5 m
Protective Hydraulic Hose	2.0 m

Combined error	0.3 %
Hysteresis and Linearity	0.2 % v. E.
Repeatability	< 0.1 % v. E.
Temperature gradient / 10 K	< 0.1 % v. E.
Compensated Temperature Range	+ 20°C...+ 80°C
Maximum Operating Temperature Range	0°C....+ 125°C

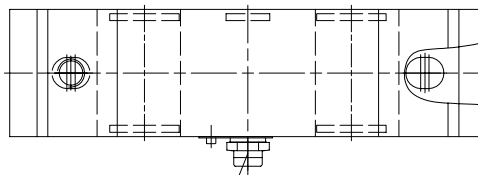
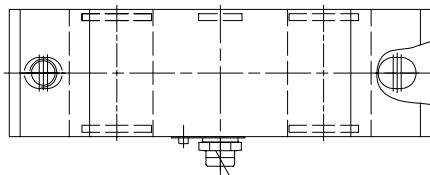
Nominal load according to Series Chart	kNmin..... kNmax
Load Limit without metrological damage	
at characteristic value 0.5 mV/V	800/1200 % Nominal load
at characteristic value 0.25 m V/V	1600/2400 % Nominal load

V B Z

Stehlager eingepasst
pedastal bearing fitted



4-Loch
Befestigung
4-hole
fastening



2-Loch
Befestigung
2-hole
fastening

Hydraulik-Schlauchanschluss G1/2
hydraulic hose connector G1/2