

Force Transducer ZKA-16-1t-3.S50

Part no.: VX34022040

Serial no.: Key 77W

VELOMAT

MESSELEKTRONIK GmbH



- **Measurement range 0 ... 10 kN**
- **Measuring signal 4 ... 16 mA**
- **internal amplifier**

Description

The tensile force transducer operates on the principle of measuring force along the longitudinal axis.

It can be used to measure tensile forces in lifts, cranes and gondolas, as well as the tension in masts, towers, platforms and similar structures.

The ZKA-16 tensile force transducer is designed as a threaded rod (M16 on both ends). This allows for simple and universal mounting. Various ball joints, available as accessories, provide further mounting options.

The application area for the strain gauges (SG) is protected from mechanical and chemical damage by an aluminium tube filled with a highly elastic compound.

Full-bridge strain gauges measure the change in length and transverse strain caused by tensile forces acting on the transducer. An integrated amplifier supplies the measurement signal of 4–20 mA.

In the unloaded state, the nominal output current can be generated by activating the calibration check signal (software calibration). This allows the tensile force transducer to be checked using an amplifier and the downstream measuring equipment.

The ZKA-16 is designed for direct connection to a control system or comparator circuit.

The shield of the supply cable is not connected to the surface of the load cell.

Product Range Force Transducer



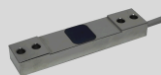
Shear force
Transducer
SKA-30D



Parallel
Bending Beam
PBB-28A



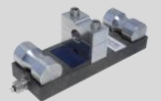
Tensile Force
Transducer
ZKA-12



Strain
Transducer
DA-20



Compression
Force
Transducer
DKA-30



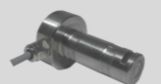
Rope Force
Transducer
LBA-160



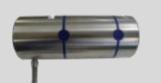
Tensile Force
Transducer
KWZ-70



Tensile / Com-
pression Force
Transducer
DZA-24A



Load Pin
SB-25



Load Pin
SKL-90

Force Transducer ZKA-16-1t-3.S50

Part no.: VX34022040

Serial no.: Key 77W

VELOMAT

MESSELEKTRONIK GmbH



Technical Data

Mechanical Data:

Force Transducer:

Weight:	approx. 0.26 kg
Material:	Stainless steel / Aluminium
Degree of protection:	IP 67
Nominal force:	10 kN = 16 mA
Max. force of use:	150 % of nominal force
Min. breaking force:	400 % of nominal force

Electrical Data:

General Data:

Total error:	≤ 1 % of final value
Temperature error zero point:	≤ 0.04 % of final value / K
Temperature error sensitivity:	≤ 0.04 % of final value / K
Insulation resistance:	> 5000 MΩ
Nominal temperature range:	-15°C to +70°C
Temperature range of use:	-25°C to +80°C

Measurement Amplifier:

Power supply:	24 V DC ± 20 %
Current consumption:	max. 50 mA
Output signal:	4 ... 16 ... 20 mA = 0 ... 10 ... 13.33 kN
Execution:	internal amplifier
Calibration check stroke:	+4 mA

Cable and Connection

Cable:

Type:	PVC, screened, 4 x 0.14 mm ²
Length:	1.5 m
Cable end:	Wire end ferrules

Connection

Core Colour	Description
brown	Operating voltage UB
white	Calibration check (low aktiv) CC*
green	GND
yellow	Load signal IM
blue	Screen connection cable

Product Range Electronics



Measurement
Amplifier
VMV-0025



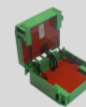
Limiting
Switch
VMV-0131



Large Size
Display
VPA-0185



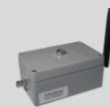
Handheld
Terminal
VHT-0041
VHT-0020



ATEX Barrier
VZB-0010



Data Logger
VPA-0400



Radio System
VUR-0350



Small Control
System
VKS-0100



Measurement
Controller
VKS-0120



Load Monitor
VKS-0151



ATEX Device
VMV-0034

Force Transducer ZKA-16-1t-3.S50

Part no.: VX34022040

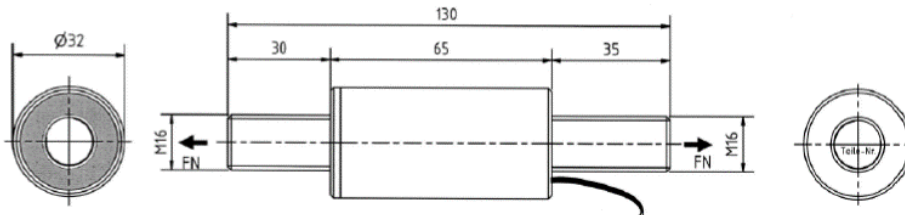
Serial no.: Key 77W

VELOMAT

MESSELEKTRONIK GmbH



Installation & Dimensions



Customised
Special Solutions

Contract
Applications

Factory Calibration

DAkkS- / DKD-
Calibration

Cable Assembly

Engineering Services