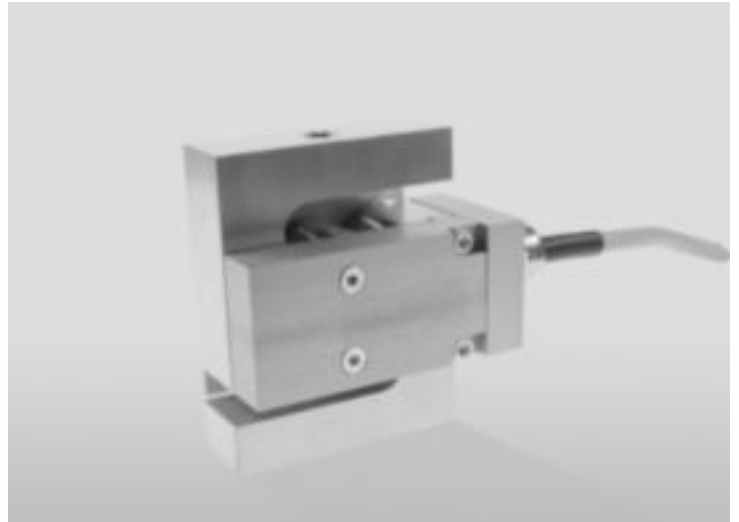


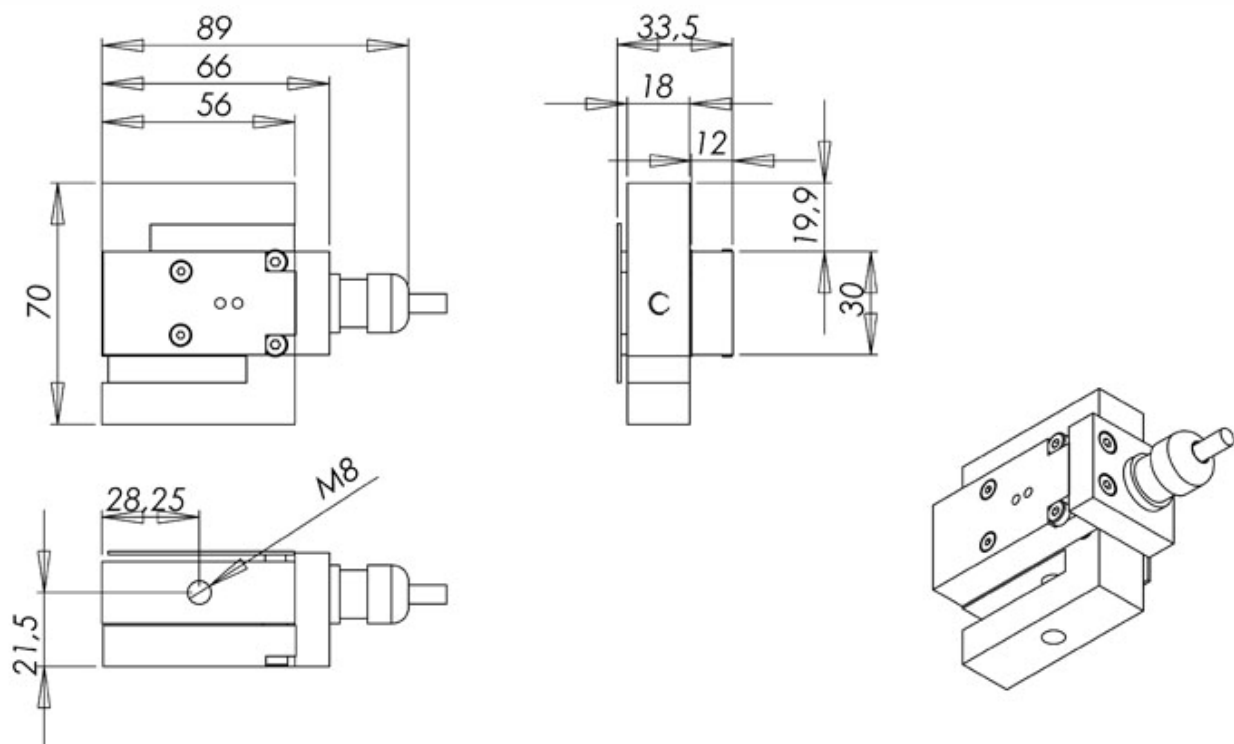
## Series KM1401 / KT1401

- Capacity from 0 ... 50N to 0 ... 1kN
- Calibration either in tension or compression
- Optionally only loadcell (KM1401) or loadcell with integrated amplifier
- Calibration either in N or kg, calibration protocol included
- Loadcell in aluminium
- Protection class IP40

Series K1401 force transducer are very compact models and do not differ in their dimensions over all offered capacities. Because of their shape (S-Beam) this force transducers are recommended for applications with tension force especially. Force is applied by M8 internal screw thread. DMS Wheatstonebridges (measuring principle) have delivered an optimal performance since decades and ensures a long lifetime.



## Dimensional Drawing



# Series KM1401 / KT1401

Technical Data	KM1401	KT1401
Capacity (0 to ...)	50; 100; 200; 500; 1000 N	
Operating overload	120% F.S.	
Safe overload	150% F.S.	
Ultimate overload	> 200% F.S.	
Rated output	2 mV/V	-
Rated output tolerance	10% F.S.	-
Rated output tolerance	0,1% F.S.	-
Zero balance	5% F.S.	0,2% F.S.
Non-linearity	0,05% F.S.	0,05% F.S.
Hysteresis	0,05% F.S.	0,05% F.S.
Creep (30min.)	0,04% F.S.	0,04% F.S.
Total error *	0,1% F.S.	0,17% F.S.
Non-repeatability	0,04% F.S.	0,04% F.S.
Temp.effect on zero	0,05% F.S./10K	0,15% F.S./10K
Temp.effect on output	0,05% F.S./10K	0,15% F.S./10K
Dynamic load capacity	50% F.S.	
Resonance frequency	≈ 0,2 kHz	
Fullscale deflection	≈ 0,2 mm	
Limiting lateral load	50% F.S.	
Legend:	* ) hysteresis included	
	All above values in %F.S. < = ± values	

Mechanical Data	
Measuring method	foil strain gage full bridge
Material loadcell	aluminium alloy

Ambient Conditions	KM1401	KT1401
Compensated temperature	-10 ... +50°C	0 ... +50°C
Operating temperature	-10 ... +80°C	0 ... +70°C
Storage temperature	-20 ... +80°C	-20 ... +80°C
Protection class	IP40	IP40

Electrical Data	KM1401	KT1401
Input impedance	400 ± 40 Ω	-
Output impedance	350 ± 10 Ω	-
Insulation	> 5000 MΩ	> 5000 MΩ
Recommended excitatin	10 VDC typ. /15 VDC max.	24 VDC
Cable size	5-wire shielded, 2m	5-wire shielded, 2m

# Series KM1401 / KT1401

## Signal Versions

	Supply	Signal
0000 without amplifier	10 V	20 mV $\pm$ 20%
2410 built in amplifier	24 V	0 ... 10 V
2442 built in amplifier	24 V	4 ... 20 mA

## Electrical Connection

Wiring	0000	2410/2442
black	Excitation -	Excitation -
red	Excitation +	24 V
brown	Signal +	Signal +
yellow	Signal -	Signal -
orange	n.c.	n.c.
shield	on housing	on housing

## Ordering Example

Series	Connection	Capacity	Signal	Force direction	Accessories
KT1401	K	1 kN	2410	D	<b>External Amplifiers</b> <ul style="list-style-type: none"> <li>• EMA3-DMS / EMA3-2DMS</li> <li>• IPG-DMS / IPG-2DMS</li> <li>• SI-DMS</li> <li>• IMA2-DMS</li> </ul>
Series KT1401 with integrated amplifier, 2m cable, capacity 1 kN, supply 24V, signal 0-10V, calibration in compression					
KM1401	K	500 N	0000	Z	<b>Displays</b> <ul style="list-style-type: none"> <li>• DH28-DMS</li> <li>• Modig</li> </ul>
Serie KM1401 without integrated amplifier, 2m cable, capacity 500 N, calibration in tension					

The specifications and information in this datasheet cannot consider all special demands that are caused by the application. Because of this, they are no general description of the properties of the product.  
 11. May 2010. All specifications are subject to change without notice.