

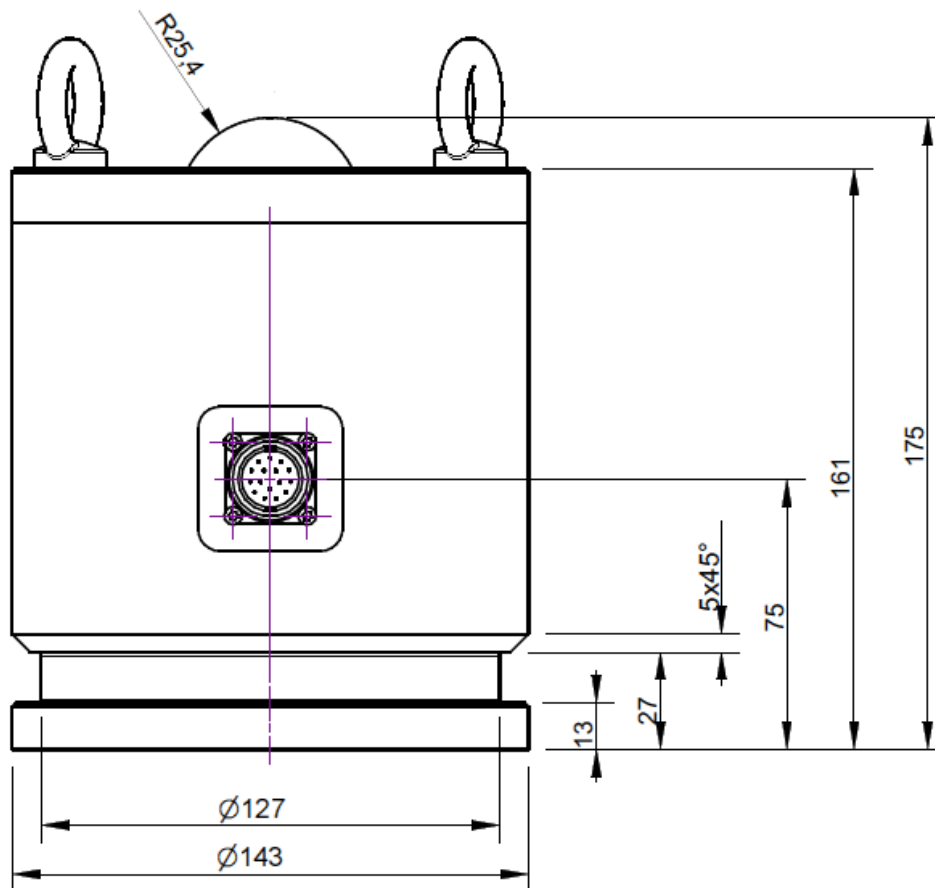
## Force Sensor KA224 100kN

Item number: 4596



The KA224 series force sensors are suitable for use in harsh environments. The robust sensor housing can withstand lateral forces up to 100% of the rated force. It has an IP67 protection rating and can operate at temperatures up to 120°C. Two ring nuts can be used for transport. Connection is done via a 6-wire M23 connector.

## Technical Drawing



## Technical Data

Basic Data		Unit
Type	Kraftsensor	
Force direction	Compression	
Rated force F <sub>x</sub>	100	kN
Force introduction	Load button	
Dimension 1	R31,75	
Sensor Fastening	Fläche	
Dimension 2	Ø143	
Operating force	150	%FS
Lateral force limit	100	%FS
Material	tool steel	
Surface	Galvanisch verzinkt	
Dimensions	Ø 143 mm x 175 mm ... Ø 245 mm x 270 mm	
Height	175	mm
Length or Diameter	143	mm
Variants	100kN... 1MN	

Electrical Data		Unit
Input resistance	800	Ohm
Tolerance input resistance	100	Ohm
Output resistance	700	Ohm
Tolerance output resistance	10	Ohm
Insulation resistance	5	GOhm
Rated range of excitation voltage from	2.5	V
Rated range of excitation voltage to	5	V
Operating range of excitation voltage from	1	V
Operating range of excitation voltage to	10	V
Zero signal	0.05	mV/V
Rated output	1	mV/V / Fs

Accuracy Data		Unit
Accuracy class	0,1	
Relative linearity error	0.05	%FS
Relative zero signal hysteresis	0.05	%FS
Temperature effect on zero signal	0.01	%FS/K
Temperature effect on characteristic value	0.01	%RD/K
Relative creep	0.05	%FS
Relative repeatability error	0.1	%FS

Environmental Data		Unit
Rated temperature range from	-10	°C
Rated temperature range to	85	°C
Operating temperature range from	-20	°C
Operating temperature range to	120	°C
Storage temperature range from	-10	°C
Storage temperature range to	85	°C
Environmental protection	IP67	

Abbreviation : RD: „Reading“; FS: „Full Scale“;1) Value in () from 1000kN

## Pin Assignment

Channel	Symbol	Description	Wire color	PIN
	+Us	positive bridge supply		1
	-Us	negative bridge supply		2
	+Ud	positive bridge output		3
	-Ud	negative bridge output		4
	+Uf	positive sense lead		5
	-Uf	negative sense lead		6

Pressure load: positive output signal.  
Shield- transparent.