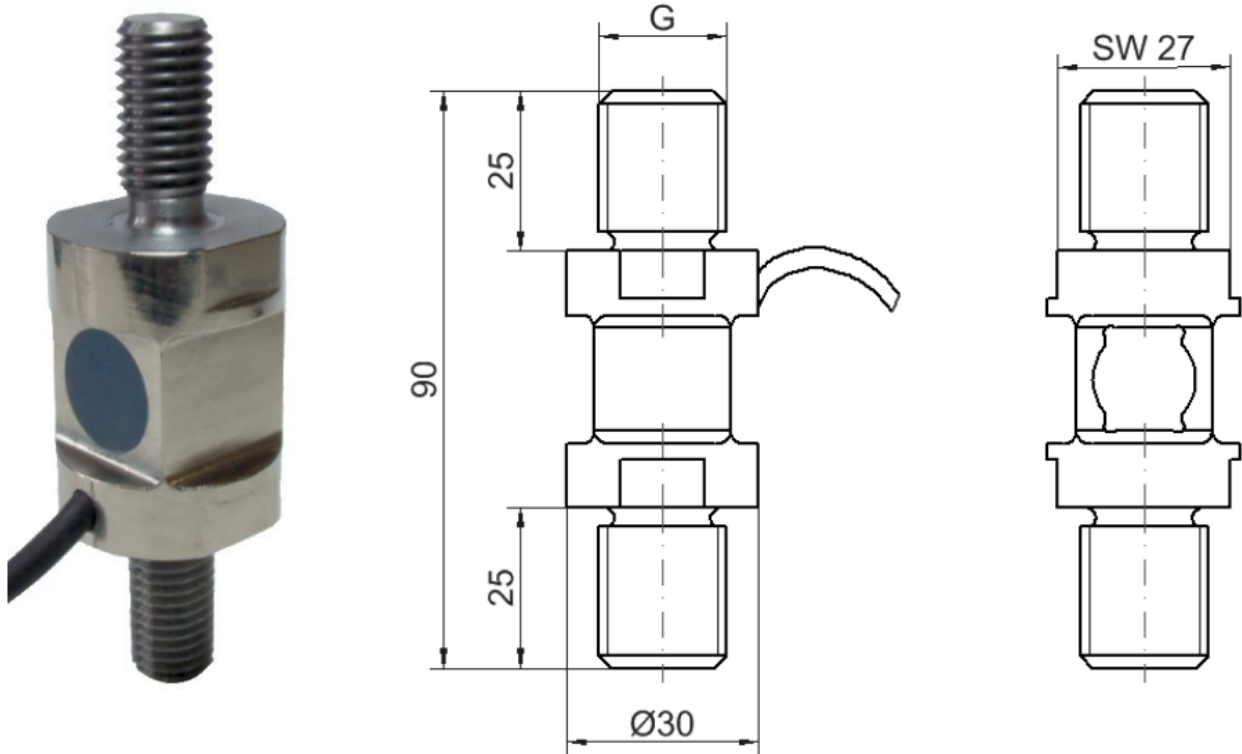


# K1-M30Z

*compression-tension force sensor*



Nominal Force	1kN	2kN	5kN	10kN	20kN	50kN
Thread (G)	M12x1,75	M12x1,75	M12x1,75	M12x1,75	M16x2	M20x2,5

## Pin Configuration

+Us	positive bridge supply	brown
-Us	negative bridge supply	white
+U <sub>D</sub>	positive bridge output	green
-U <sub>D</sub>	negative bridge output	yellow
Shield		transparent

Pressure load : positive output signal

## Technical Data

Measurement / Material		
Design		Bar, force/pressure
Material		Aluminium-Alloy / 1,4542
Dimensions	mm x mm	Ø30 x 90
Force transmission / Thread		M12 / M16 / M20
Mechanical Data		
Nominal Force (FS)	kN	±1, ±2, ±10, ±20, ±50
Operation force	%FS	150
Break load	%FS	300
Deflection by FS	mm	0,04
Electrical Data		
Nominal output 1)	mV/V @ FS	1,00, 1,50@20kN, 2,00@50kN
Zero balance	mV/V	0,05
max. supply voltage	V	10
Input resistance	Ohm	390 ±40
Output resistance	Ohm	350
Insulation resistance	Ohm	>2 10 <sup>9</sup>
Connection 4 conductor open	m	3
Accuracy		
Nominal output 2)	%	0,5 (1,0)
rel. linearity deviation	%FS	0,1
rel. reversal error 2)	%FS	0,05 (0,2)
Temperature coefficient of the zero signal	%FS/K	0,02
Temperature coefficient of the parameter	%RD/K	0,02
Creep Error (30 min)	%FS	0,1
Temperature		
Nominal temperature range	°C	-10... +70
Working temperature range	°C	-10 ... +85
Storage temperature range	°C	-10 ... +85
Environmental protection		IP67

Abbreviation : RD: „Reading“; FS: „Full Scale“;

1) The exact nominal sensitivity is indicated in the test report.

2) Values in () for tension-pressure alternate load

Installation instructions: When assembling attachment parts, hold the sensor in place on the installation side / do not guide any tensioning torque through the sensor. Attachment parts may be supported on adjustable feet on the end faces, if preferred.