

AKS-1· AKS-3 PIEZO ELECTRIC FORCE SENSOR

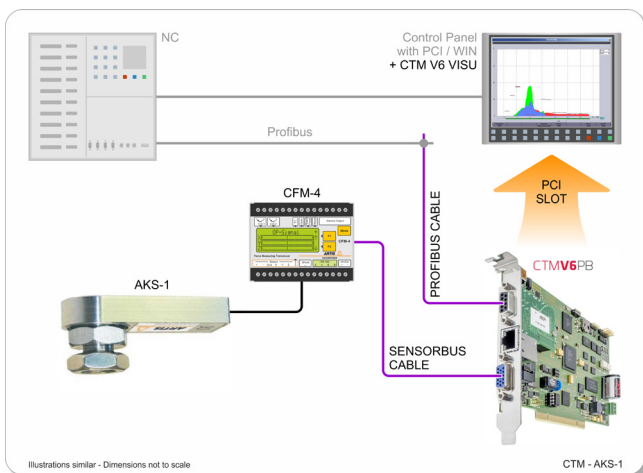
Properties

- Piezo electric sensor for recording forces in highly rigid assemblies
- 1 or 3 measuring signals for force components
- Charge amplifying electronics integrated in sensor
- Degree of protection IP66/IPx7, resistant to cooling lubricants

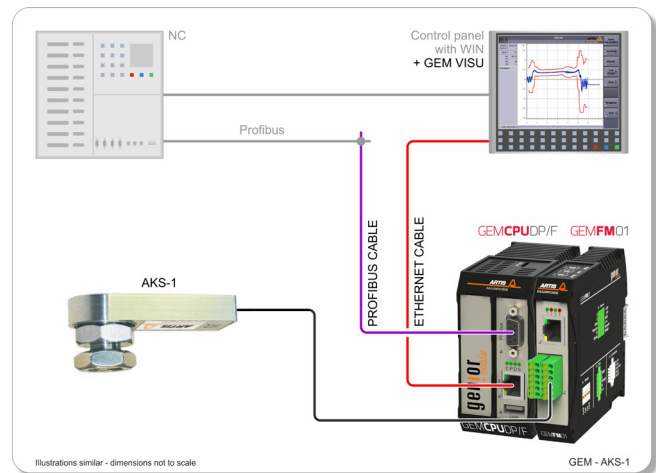
* * only 1 measuring signal if operated with the GENIOR MODULAR system



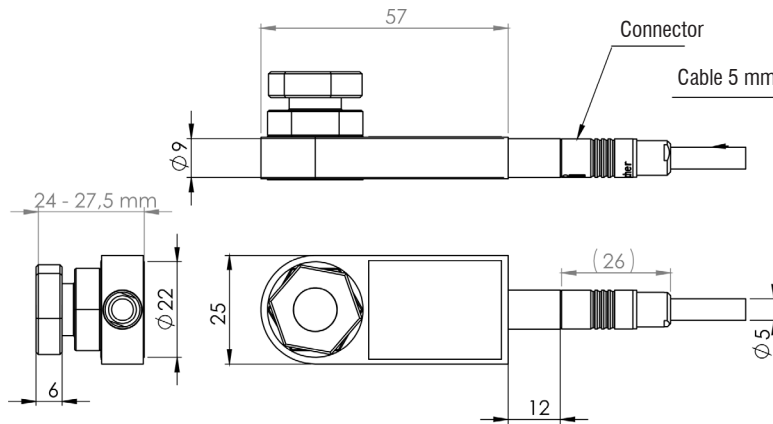
Illustration similar



Application example:
AKS-1 and CFM-4 with the CTM Tool and Process Monitoring System



Application example:
AKS-1 and GEMFM01 force measuring transducer with the GENIOR MODULAR Tool and Process Monitoring System



ARTICLE NUMBER		
CODE AKS-1	03PZ0211001 1-component force sensor	
CODE AKS-3	03PZ0211002 3-components force sensor	
DIMENSIONS	see drawing	
WEIGHT	AKS-1	AKS-3
	0.968 kg	0.525 kg
MATERIAL	Chromium nickel steel	
DEGREE OF PROTECTION	IP66/IPx7 resistant to cooling lubricants	
OPERATING TEMPERATURE	10 °C ... +60 °C	
WIRE BREAK DETECTION	via force measuring transducer	
VOLTAGE SUPPLY	via force measuring transducer 11 - 30 V DC	
NOISE	< 2 mV	
OFFSET	< 15 mV	
CONTROL SIGNALS OPERATE		
RESET	Input open or 0 – 1 V DC	
OPERATE	3 – 30 V DC	
CONTROL SIGNALS RANGE		
RANGE 1	Input open or 6 – 30 V DC	
RANGE 2	0 – 1 V DC	

SPECIFICATION AKS-1	Fz
MEASURING RANGE 1	± 5 kN
MEASURING RANGE 2	± 1000 N
OVERLOAD	20 %
SENSITIVITY RANGE 1	approx. 1 mV/N
SENSITIVITY RANGE 2	approx. 5 mV/N

SPECIFICATION AKS-3	Fz	Fx, Fy
MEASURING RANGE 1	± 5 kN	± 2,5 kN
MEASURING RANGE 2	± 1000 N	± 500 N
OVERLOAD	20 %	20 %
SENSITIVITY RANGE 1	approx. 1 mV/N	approx. 2 mV/N
SENSITIVITY RANGE 2	approx. 5 mV/N	approx. 10 mV/N

SCOPE OF DELIVERY	Force sensor, 15 m cable included, pre-loading screw
CONFORMITY	CE, UKCA

SENSOR CONNECTION	Color	Description
AKS-1	white	+ 15 V
	yellow/black	GND (Ground)
	green	± 10 V (Uout)
	brown	+5 V...+ 15 V
		(Operate)
AKS-3	red	+ 15 V
	brown	GND (Ground)
	white	± 10 V (X-axis)
	gray	± 10 V (Y-axis)
	pink	± 10 V (Z-axis)
	green	+5 V...+ 15 V
		(Operate)



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For a full list of address locations, please consult the Marposs official website

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