



Illustration similar

## PIEZOELECTRIC FORCE MEASURING SENSOR

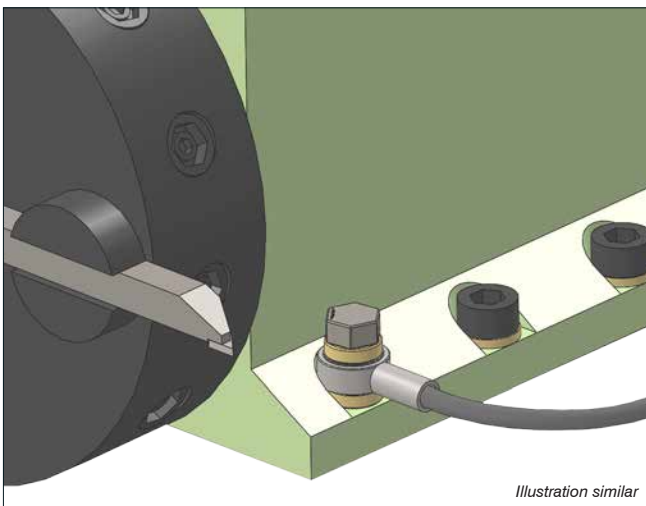


Illustration similar

Application example CFW-xx

### Typical Applications

- Hard turning
- Lathe finishing

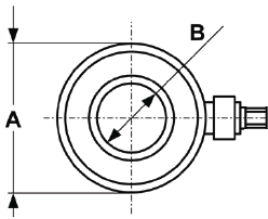
### Special Features

- High sensitivity to detect smallest process force variations
- Suitable for rough environmental conditions
- Compact design

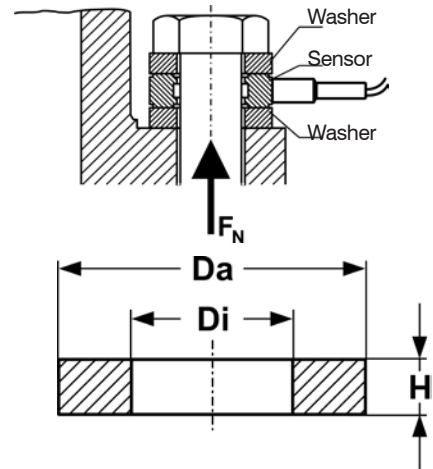
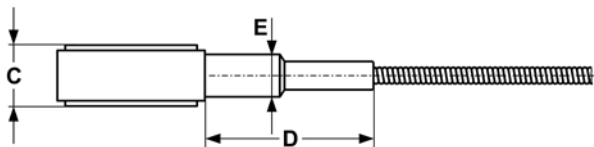
The force measuring sensor is available in different sizes and – using the respective measuring transducer – suits all ARTIS monitoring units.

# Piezoelectric force measuring sensor

CFW-20 · CFW-50 · CFW-100 · CFW-140



CFW-xx sensor with cable protection spiral



	CFW-20* O3PZ0211003	CFW-50 O3PZ0211005	CFW-100 O3PZ0211006	CFW-140 O3PZ0211004
Nominal force	20 kN	50 kN	100 kN	140 kN
Maximum strength	120 % of nominal force			
Dimensions				
A	14.5	22.8	28.6	34.5
B	6.5	10.5	13	17
C	8	10.3	11.3	12
D	—	36	36	36
E	—	9	9	9
Da <sub>-0,1</sub>	17	24	26.5	31
Di <sup>+0,1</sup>	6.5	10	12.7	16
H	3	4	5	6
For screws	M6	M10	M12	M16
Weight	0.009 kg	0.043 kg	0.069 kg	
Rec. pre-load	7 kN	18 kN	30 kN	45 kN
Sensitivity	-4 pC/N	-4.3 pC/N	-4.3 pC/N	-4.3 pC/N
Storage temperature	-40 °C to +120 °C			
Operating temperature	-40 °C to +120 °C			
Degree of protection	IP65			
Insulation impedance	>10 MΩ			
Nom. measuring path	2 μm	3.5 μm	5.8 μm	7.5 μm
Basic resonance frequency	60 kHz	55 kHz	45 kHz	35 kHz
Crosstalk from F <sub>xy</sub> to F <sub>z</sub> from M <sub>xy</sub> to M <sub>z</sub>	0.03 N/N 0.002 N/Nm	0.03 N/N 0.002 N/Nm	0.04 N/N 0.002 N/Nm	0.03 N/N 0.002 N/Nm
Rel. linearity error	2 % of full scale			
Material (sensor)	Stainless steel			
Material (washer)	Stainless steel			
Scope of supply	Sensor, 2 washers			
Conformity	CE			

*\*The type CFW-20 is only available without plug and does not have the corresponding thread*

Accessories
<b>Cable CFW, 3 m</b> O6739797057
Connection cable between CMD-600 and CFW sensor, length 3 m.
<b>CMD-600</b> O8302712018
Digital charge amplifier, measuring range 50 – 600.00 pC.
<b>Cable CMD, 20 m</b> O6739797059
Connection cable between CDM-600 and CFM-4
<b>Set of washers M 6</b> O4390140001
<b>Set of washers M10</b> O4390140002
<b>Set of washers M12</b> O4390140003
<b>Set of washers M16</b> O4390140004

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

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