**GENIOR MODULAR BASE MODULE WITH PROFINET INTERFACE**

**Special Features**

- Monitoring system for machine tools in serial production lines
- Supported interface: Profinet
- Monitors tool breakage, missing tools, tool wear, Adaptive Control (AC)
- Monitors up to 4 NC-channels (more in preparation)
- Up to 8 additional sensors connectable
- Max. 16 signals
- Sample rate adjustable (min. 2 ms, typical 10 ms)

**Modular System**

GENIOR MODULAR is a fully automatic system for process-monitoring and -control for machine tools in metal cutting.

GENIOR MODULAR captures the necessary measurement data digitally via the base module GEM CPU-02-PN. For special monitoring tasks, the system may also be operated with different sensors and corresponding measuring transducers.

<table>
<thead>
<tr>
<th>Measuring transducers for:</th>
<th>FM-01</th>
<th>Force, strain and coolant flow</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>± 10 V</td>
<td>4...20 mA</td>
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<tr>
<td>TP-01</td>
<td>True power</td>
<td></td>
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<tr>
<td>AM-01</td>
<td>Acoustic emission</td>
<td></td>
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<tr>
<td>VM-01</td>
<td>Vibration and acceleration</td>
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<tr>
<td>VM-02</td>
<td>Vibration and acceleration, collision monitoring</td>
<td></td>
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<tr>
<td>TF-01</td>
<td>Torque and axial force</td>
<td></td>
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<tr>
<td>IO-01</td>
<td>Input-/output converter</td>
<td></td>
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</tbody>
</table>
GENIOR MODULAR Base Module with Profinet Interface
GEM CPU-02-PN

Dimensions
- Weight: 243 g
- Material: Polyamide PA 6.6
- Storage temperature: -20 °C...+60 °C
- Operation temperature: 0 °C...+50 °C
- Flammability class: VO (UL94)
- Rel. humidity: 5 – 85 % without condensation
- Degree of protection: IP20
- Installation: Mounting rail acc. to DIN EN 60715
- Voltage supply: 24 V ±20 %
- Nom. current consumption max. 500 mA
- Ripple: max. 5 %
- Interfaces: 2 x ARTIS CAN bus
  10/100 Base T Ethernet
  USB Host
  Profinet
- Control requirements: Profinet or in-/outputs for parallel wiring
- Examples control requirements: Siemens 840D SL, Fanuc, usw.
- Conformity: CE

Licence codes (order separately)
- GEM DTA-DP OCMZ5100004: Licence code for activating the sensorless torque monitoring
- GEM C OCMZ5100005: Licence code for activating one additional monitoring channel
- GEM F-AC OCMZ5100003: Licence code for activating the Adaptive Control AC
- GEM F-WEAR OCMZ5100002: Licence code for activating the wear monitoring

Supported components (order separately)
- Cable Ethernet (CO) connection cable (Crossover): 2 m: Code O6739797065
  5 m: Code O6739797066
  10 m: Code O6739797067
  20 m: Code O6739797068
- Cable Profinet connection cable RJ45/RJ45: 0.3 m: Code O6739797111
  0.5 m: Code O6739797115
  1 m: Code O6739797116
  2 m: Code O6739797117
  3 m: Code O6739797118
  5 m: Code O6739797119
  10 m: Code O6739797120
  20 m: Code O6739797121