



**Siemens Product Partner
for SINUMERIK Systems**

ADVANCED SOFTWARE FEATURES

- Any number of simultaneously displayed measurement curves
- Contains up to 4 independently monitored Tool Monitors respectively stations

SEM-MODUL-*e*

INNOVATIVE OPERATING CONCEPT

Recent development of user-friendly, intuitive operation

LARGE 10,4" Touch-Display

Further developed touch panel with even better functionality

EXTENSIVE INTERFACES

USB / Profibus / Ethernet / VGA

EFFICIENT AND NEW DESIGN

50% less than SEM-Modul

TECHNICAL DATA

PROTECTION CLASS	IP 20	(Display: IP 54)
DIMENSIONS (W x H x D)	Central unit: 122 x 133 x 110 mm	(Display: 271 x 228 x 44 mm)
POWER INPUT	Central unit: 16 Watt (40 Watt when connected to 8 analogue sensors)	(Display: 20 Watt)
CONNECTIONS	1 x Ethernet (for measurement curve display and operation) 3 x Profibus (for digital measured values and control signals) 4 x USB Master (for data back-up and printing)	
RESOLUTION OF THE A/D CONVERTER	16 Bit, 0,1ms scan time per measuring point independent of the number of measuring points	
OPTOCOUPLER OUTPUTS	15 normally open contacts for a wear and breakage message, feed release, data receipt (handshake)	
RELAY OUTPUTS	4 potential-free normally open contacts for a wear and breakage message (1A / 24V)	
MONITORING STRATEGIES	Monitoring of effective power, acoustic emission, torque, power, force, hydraulic pressure, distance and/or laser light with static limits and envelope curves (tolerance range) concerning time elapsed (unsmoothed, smoothed and the dynamic part) and average value. Apportionment of the machining task into cuts.	
MEASURING POINTS / SENSORS	8 analogue sensors ($\pm 10V$). With the Siemens compile cycle, 24 axes can be monitored using internal drive data (or up to 50 measuring points per synchronised action)	
LIMITS PER MEASURING POINTS AND CUT	Unlimited, even limit above (below) curve, limit above (below) the average height, upper (lower) envelope, minimum limit, time limit	
SPECIAL FEATURES	Signal manager / file manager / Any number of simultaneously displayed measurement curves / backup possibility / Ethernet (remote service, remote control) / user groups administration / tool tips / printable screenshots / online user manual / and much more	