Single-Chanel Control

SMD10

High Power Nutrunning Technology

AMT

Cost-effective entry into EC Nutrunner technology

Pneumatic nutrunners are still used frequently for many tightening tasks. However, increased demands on quality and assembly process safety and reliability have lead to an increased interest in high-tech EC nutrunner technology. The SMD10 nutrunner control was developed for just this purpose. It combines the demand for a cost-effective tightening system with the advantages of state-of-the-art EC nutrunning technology.

Torque sensors guarantee high-precision connections

All nutrunning tools for the SMD10 are equipped with torque sensors and also store the rotation angle. The SMD10 provides, therefore, precision torque with consistent quality. By storing the rotation angle, the control monitors whether or not the specified torque is actually being applied to the bolted assembly. In addition, the tool's current consumption, equivalent to the torque, is used as a redundant control variable. By doing this, all requirements for safe, reliable, and high-quality bolted assemblies are met by the SMD10.

The SMD10 can be used for either torque tightening with angle monitoring or angle tightening with torque monitoring. The control also provides a method for angle-controlled loosening.

Safeguarding the tightening process

The basic version of the SMD10 features a tightening program with up to three stages. The number of programs can be expanded to up to 15, as needed. This allows a single nutrunner at a work station to replace several pneumatic tools. By attaching a bit box to the SMD10, the correct tightening program can be automatically selected, based upon the socket that is removed from the bit box. Frequently, several tightening processes can be performed on a part with the same program. An integrated counter function allows the SMD10 to monitor the total tightening process for each part.

SMD10:

Interface to PLC and PC

Program selection can also be controlled from a PLC by interfacing through the I/O, CAN- or adaptable field bus. Tightening results can be communicated to a laptop or PC for display or archival, using a serial interface.

Automatic tool ID

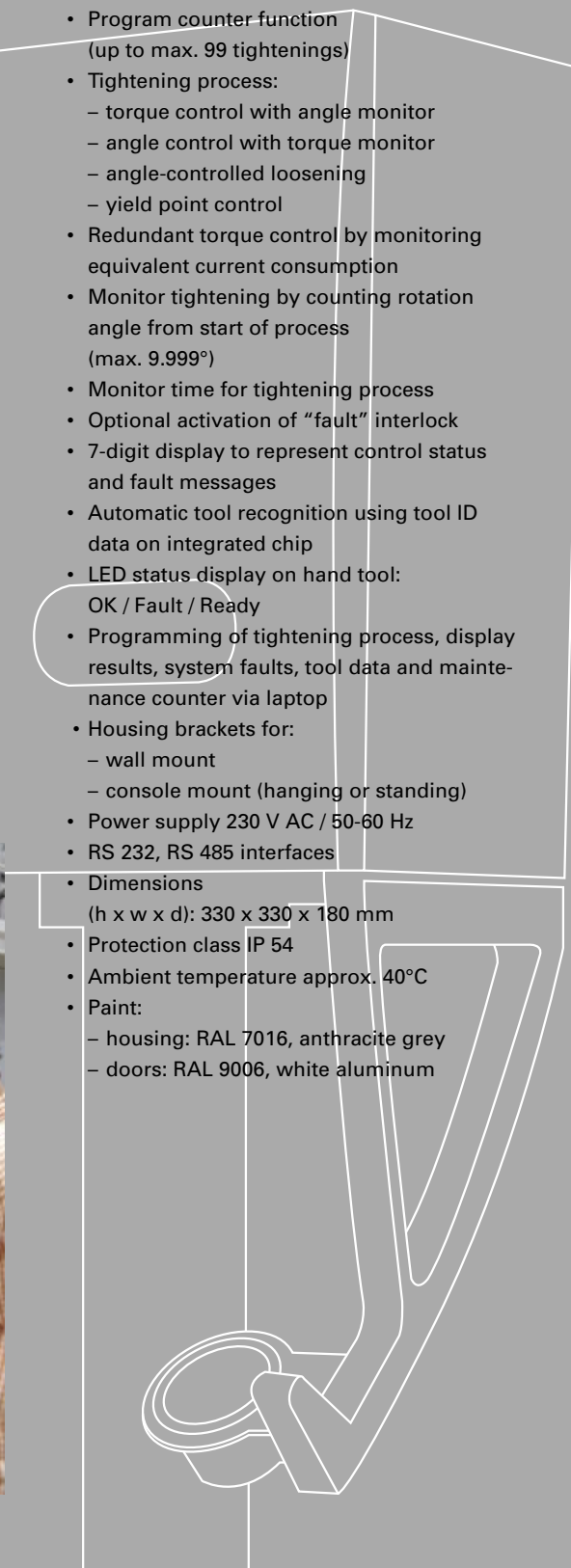
All AMT hand tools feature an integrated data chip for storage of tool ID data. As soon as a hand tool has been connected to the SMD10, the control automatically reads all tool ID data. This avoids potential errors in tool parameters.

User-friendly programming

The SMD10 can be programmed with a laptop or PC. A user-friendly, graphic interface assists the operator in creating fast, trouble-free programs.

Technical Data:

- Number of programs:
  – 6 programs without coding (default)
  – 4 programs with counter function, without coding
  – 15 programs with counter function, with coding
- Programming of tightening process in 1 – 3 stages
- Program counter function (up to max. 99 tightenings)
- Tightening process:
  – torque control with angle monitor
  – angle control with torque monitor
  – angle-controlled loosening
  – yield point control
- Redundant torque control by monitoring equivalent current consumption
- Monitor tightening by counting rotation angle from start of process (max. 9.999°)
- Monitor time for tightening process
- Optional activation of “fault” interlock
- 7-digit display to represent control status and fault messages
- Automatic tool recognition using tool ID data on integrated chip
- LED status display on hand tool: OK / Fault / Ready
- Programming of tightening process, display results, system faults, tool data and maintenance counter via laptop
- Housing brackets for:
  – wall mount
  – console mount (hanging or standing)
- Power supply 230 V AC / 50-60 Hz
- RS 232, RS 485 interfaces
- Dimensions (h x w x d): 330 x 330 x 180 mm
- Protection class IP 54
- Ambient temperature approx. 40°C
- Paint:
  – housing: RAL 7016, anthracite grey
  – doors: RAL 9006, white aluminum



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