**MCflex**  
**Engine Control Panel**

### Application
- Drilling machinery
- Generator sets
- Compressor packages
- Chippers and Crushers
- Cranes & Access Platforms
- Utility vehicles
- Water pump sets

### Features
- Two line alpha-numeric display
- 6-channel engine monitoring, e.g. oil pressure, temperature, speed etc.
- Automatic stop/start with manual and automatic external start and stop
- Total hour meters and resett able daily hour meter
- Speed monitoring
- Failure display in clear text, failure-lists with the last 20 failures visible
- 7 outputs – including 5 high current outputs
- Programmable pin assignment
- Electronic and mechanic starter protection
- Adjustable preheat, after glow and glow while starting time, temperature or time controlled
- Two colors fault indicator
- Configurable parameters in text messages (code protected)
- Sealing class IP63. With put key switch or -cap IP67
- Two years warranty
MCflex provides an intelligent solution to protect the engine. The flexible software system allows users to configure the system to their requirements.

**Basic platform**
Control box with key switch

**Technical Data**

**Inputs**
- Temperature and Oil pressure adjustable for analogue switch/sender in NO/NC
- Auxiliary e.g. air filter, V-belt etc
- External stop
- Auto-start or output alarm, NO/NC
- Alternator D+
- Terminal „W“, sensor or magnetic pickup

**Outputs**
- Fuel solenoid, ETR/ETS, pull coil 40A*/20A
- Fuel solenoid, ETR/ETS, hold coil 3,5A*/3A
- Preheat 2 x 55A*/2 x 35A
- Starter 40A*/20A
- Speed solenoid, pull coil 40A*/20A
- Speed solenoid, hold coil 3,5A*/3A
- Programmable pin assignment

**Total current load for all outputs together**
110A*/70A

* for short time 2 sec.

**Electrical Data**
- Operation voltage 6 to 32V
- Current consumption ca. 30mA
- Voltage peak UB 2ms, 200V
- Interference voltage UB 6Vss, 50Hz
- Short circuit protection
- Reverse voltage protection

**Interfaces**
- Analog
  - CAN 2.0 B (SAEJ1939)

**Interfaces**
- Mechanical Data
  - Temperature range: -20 bis +85°C
  - Connection Deutsch (HDP24-24-19PE)
  - Dimensions 72 x 72 mm,
  - Mounting dimension 66 x 66 mm
  - Sealing class IP63. With put key switch or -cap IP67
  - Glass fibre reinforced plastic housing
  - Weight: 340 g

**Interfaces**
- MCflex provides an intelligent solution to protect the engine. The flexible software system allows users to configure the system to their requirements.