**Product KSM 100-1-EC**

**Description**

Open programmable safe PLC for machinery and plant construction. The modules can be enhanced up to 130 safe I/O’s and up to 12 axes.

- 14 safe inputs, 3 cut off channels, thereof 1 safe relay output and 2 messaging outputs in the basic module
- Expandable up to 130 safe I/O’s and / or 12 safe axes via backplane bus (connection to snap on head rail)
- Integrated fieldbus interface (EtherCAT)
- OPC compliant programming with SafePLC Software
- Comprehensive library with pre-configured safety-related sensors and actors
- Complete safety and position-oriented safety functions for safe motion according to EN 61800-5-2
- Dimensional functions for safe speed- and range-zone monitoring possible
- Parameter administration for expansion modules in the basic module
- Cross circuit monitoring
- Comprehensive diagnostics integrated in firmware
- Coded status display using 7-segment display and LED’s mounted in the front side
- Quit-/Start-/Reset- button in front side
- Parameter administration for expansion modules in the basic module
- Complete speed- and position-oriented safety functions for safe motion according to EN 61800-5-2
- Expandable up to 130 safe I/O’s, and / or up to 12 axes

**Technical data**

**Safety characteristics**

- In accordance to EN 1849
- In accordance to EN 61508 SIL 3

**General data**

- Length: 115 mm
- Width: 90 mm
- Height: 70 mm
- Weight: 570 g
- Max. fuse on supply voltage: Max. 2 A
- Max. number of extension modules:
  - 2
- Interface for extension modules:
  - 1 data connection (pin-plug assembly) / KSM 31 bus-connector (pin-plug assembly)
- Safe digital input lines:
  - 14 lines: 2 - 24 VDC
- Safe digital output lines:
  - 1
- Safe Analog I/O:
  - 2
- Safe Analog Out:
  - 2
- Standard output lines:
  - 2
- Pulse output lines (programmable selection):
  - 2
- Type of connectors:
  - Modular terminals

**Data interface**

- EtherCAT: 100 Mbit/s in Fastapple mode

**Electrical data**

- Supply voltage:
  - 24 VDC
- Current consumption:
  - Max.: 8 A
- Rated data digital in:
  - 24 VDC: 24 VDC +24 VDC: 24 VDC
  - Type: 24 VDC
- Rated data digital out:
  - 24 VDC: 24 VDC +24 VDC: 24 VDC
- Rated data relay output:
  - 24 VDC: 24 VDC +24 VDC: 24 VDC
- Max. fuse on supply voltage: 5 A

**Environmental data**

- Temperature:
  - 0°C to 50°C (operational temp.)
  - -10°C to 50°C (storage temp.)
- Protection rating:
  - IP 20
- Rated ambient:
  - According to EN 6151-2
- comply with:
  - According to EN 50011 and EN 61508-2

**Mechanical data**

- Size (D x H x L):
  - 115 x 90 x 70 mm
- Weight:
  - 570 g
- Mounting:
  - Snap-on mounting on standard head rail
- Max. terminal cross-section:
  - 1.5 mm²

**Pin Out - terminal diagram**

**KSM 100-1-EC - I/O configuration**

**KSM 100-1-EC - expansion options**

- Safe digital output lines
- Messaging outputs
- Inauxiliary output DO 0.2
- Inauxiliary output DO 0.1
- Inauxiliary output DO 0.0
- Inauxiliary output DO 0.0
- Messaging outputs
- Inauxiliary output DO 0.2
- Inauxiliary output DO 0.1
- Inauxiliary output DO 0.0
- Inauxiliary output DO 0.0

**Pin Out - terminal diagram**

**KSM 100-1-EC - fieldbus interface**

- SDCC-Bus (decentral enhanced module) / EtherCAT interface

**Kollmorgen Europe GmbH**

**Order information:**

- KSM 100-1-EC

- Modular Series Basic Module with EtherCAT

**For more information, please visit our website:**

www.kollmorgen.com