

Product KSM 100-4-PN

Measurements in mm (h.x.d.x.w): 100x115x180

Description

Open programmable safe PLC for machinery and plant construction. The modules can be enhanced up to 130 safe I/O's and / or up to 12 axes. The basic module KSM100-4-PN supplies 20 safe I/O's, 14 safe inputs and 3 safe cut off channels as well as a memory card slot for easy program and configuration change. option: fieldbus interface can be integrated.

The continuous function chart oriented programming frame SafePLC allows an easy and comfortable implementation of safety related tasks. The firmware of modules offers an comprehensive library for standard functions for safe signal preprocessing of safety related sensors and actors as well as for practical technology functions especially for safe motion of drives.

The spectrum of the modules reaches from conventional safe logic processing through simple safe speed monitoring tasks of single axes up to complex safe more dimensional speed- and range / zone monitoring in multiple axes processing.

The PROFINET communication device used to exchange non safe data between KSM modular device and non-safe control systems. The configuration of the non-safe data via SafePLC of modular device. The device must be parameterized as a PROFINET slave device.

- 40 safe I/O's configurable as input or output, 14 safe inputs, 3 cut off channels, thereof 1 safe relay output and 10 messaging outputs in the basic module
- Expandable up to 130 safe I/O's, and / or 12 safe axes via backplane bus (connectors to snap on head rail)
- Integrated fieldbus interface (PROFINET)
- CFC oriented programming with SafePLC - Software
- Comprehensive library with pre-configured safety related sensors and actors
- Complete speed- 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 a 7-segment display and LED's mounted in the front side
- Quit-/Start-/Reset- button in front side

Technical data

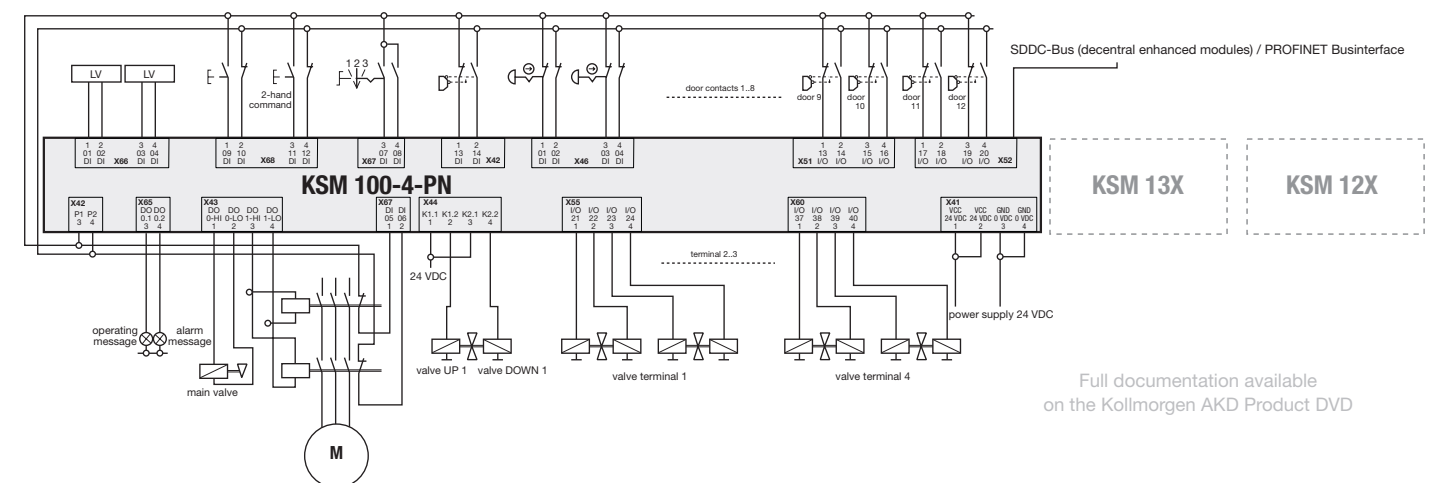
Safety characteristics	PI in accordance to EN 13849	PI e
	PFH/Architecture	Typ. 6,0 * 10 ⁹ /Architecture Class 4
	SIL in accordance to EN 61508	SIL 3
	Proof-test-interval	20 years = max. period of application
General data	Max. number of extension modules	6
	Interface for extension modules	T-bus-connector (compact assembly) / KSM 51 bus extension module (decentralize assembly)
	Safe digital input lines	14 incl. 8 OSSD
	Safe digital I/O lines	40
	Safe digital output lines	2
	Safe analog-In	-
	Safe relay outputs	1
	Standard output lines	10
	Pulse output lines (cross-short-cut detection)	2
	Type of connectors	Pluggable terminals
Data Interface	PROFINET	100MBit/s in full-duplex mode
Electrical data	Supply voltage	24 VDC/2A
	Tolerance	-15%, +20%
	Power consumption	Max. 3,2 W
	Rated data digital In	24 VDC; 20 mA, Typ1 in accordance to EN61131-2
	Rated data digital Out	24 VDC; 250 mA
	Rated data relay output	24 VDC/2A and 230 VAC/2A
	Pulse output lines (cross-short-cut detection)	Max. 250 mA
	Max. fuse on supply voltage	Max. 2 A
Environmental data	Temperature	0° up to 50° operational temp.; -10° up to +70° storage temp.
	Protection rating	IP 52
	Climate class	3 in accordance to DIN 50 178
	EMI	According to EN 55011 and EN 61000-6-2
Mechanical data	Size (h.x.d.w) (mm)	100x115x180
	Weight	1.030 g
	Mounting	Snap-on mounting on standard head rail
	Max. terminal cross-section	1,5 mm ²

Pin Out - terminal diagram

KSM 100-4-PN - I/O overview

Quantity	I/O's
14	digital inputs
40	digital inputs/outputs
2	pulse outputs
2	digital outputs relays
2	digital outputs LOSIDE
2	digital outputs HISIDE
10	messaging outputs
1	memory card
1	PROFINET

KSM 100-4-PN - sketch (example)



Full documentation available on the Kollmorgen AKD Product DVD