

Product KSM 31

Measurements in mm (h.x.d.x.w): 100x115x45



Description

Digital I/O expansion for the KSM10/11/12 and the KSM100 series. The module will be connected to the basic module via the Back-Plane-Connector by just clicking it in.

The expansion module provides 10 safe I/O's, which could be selectively configured as an input or an output. Additional 12 safe inputs and 2 messaging outputs.

- 10 safe I/O's configurable as input or output, 12 safe inputs thereof 8 OSSD compatible, 2 messaging outputs
- Short circuit monitoring
- Multiplexing of contacts or contact amplification via external contactors in connection with internal monitoring

Technical data

Safety characteristics	PI in accordance to EN 13849	PI e
	PFH/Architecture	Typ. 6,0 * 10 <sup>-9</sup> /Architecture Class 4
	SIL in accordance to EN 61508	SIL 3
	Proof-test-interval	20 years = max. period of application
General data	Safe digital input lines	12 incl. 8 OSSD
	Safe digital I/O lines	10
	Safe digital output lines	-
	Safe analog-In	-
	Safe relay outputs	-
	Standard output lines	2
	Pulse output lines (cross-short-cut detection)	2
	Type of connectors	Pluggable terminals
Electrical data	Power consumption	Max. 3,8 W
	Rated data digital In	24 VDC; 20 mA, Typ1 nach EN61131-2
	Rated data digital Out	24 VDC; 250 mA
	Pulse output lines (cross-short-cut detection)	Max. 250 mA
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.x.w) (mm)	100x115x45
	Weight	300 g
	Mounting	Snap-on mounting on standard head rail
	Max. terminal cross-section	1,5 mm <sup>2</sup>

Pin Out - terminal diagram

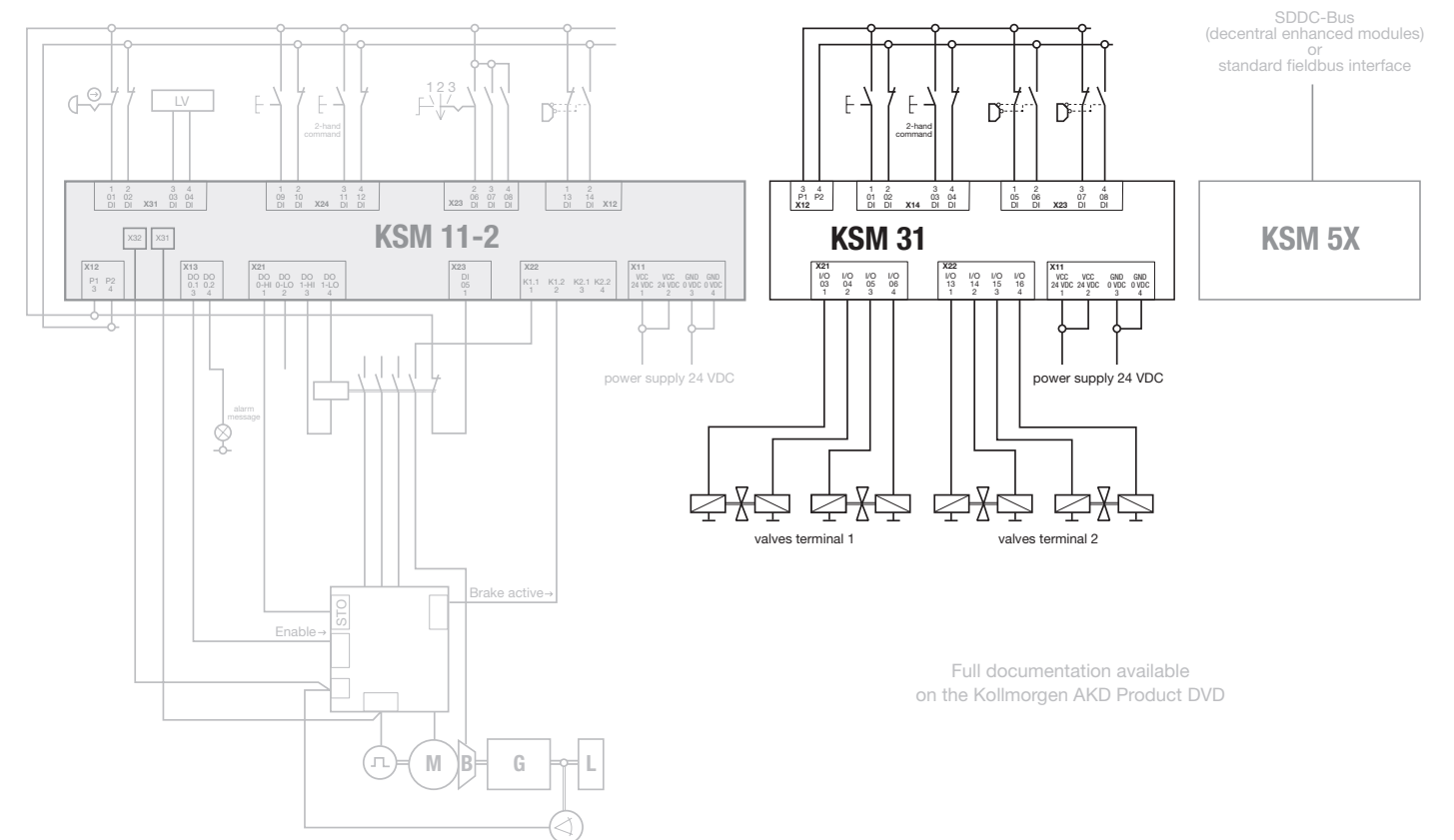
X 11	1 - U24 external	powersupply module +24 Volts	X 13	1 - NC	NC
	2 - U24 external	powersupply module +24 Volts		2 - NC	NC
	3 - GND external	powersupply module 0 VDC		3 - A1.1	output (no safety function)
	4 - GND external	powersupply module 0 VDC		4 - A1.2	output (no safety function)
X 12	1 - IO 01	digital I/O 1	X 14	1 - DI 01	digital IN 01 OSSD compatible
	2 - IO 02	digital I/O 2		2 - DI 02	digital IN 02 OSSD compatible
	3 - P1	pulse output 1		3 - DI 03	digital IN 03 OSSD compatible
	4 - P2	pulse output 2		4 - DI 04	digital IN 04 OSSD compatible
X 21	1 - IO 03	IO output 3	X 23	1 - DI 05	digital IN 05
	2 - IO 04	IO output 4		2 - DI 06	digital IN 06
	3 - IO 05	IO output 5		3 - DI 07	digital IN 07
	4 - IO 06	IO output 6		4 - DI 08	digital IN 08
X 22	1 - IO 07	IO output 7	X 24	1 - DI 09	digital IN 09 OSSD compatible
	2 - IO 08	IO output 8		2 - DI 10	digital IN 10 OSSD compatible
	3 - IO 09	IO output 9		3 - DI 11	digital IN 11 OSSD compatible
	4 - IO 10	IO output 10		4 - DI 12	digital IN 12 OSSD compatible

The variable encoder power supply has to be provided external. It will be internal monitored.

KSM 31 - I/O overview

Quantity	I/O's
10	digital outputs/inputs I/O
2	pulse outputs
12	digital inputs
2	outputs (no safety function)

KSM 31 - sketch (example)



Full documentation available on the Kollmorgen AKD Product DVD