

SystemFacts

Planar4 systems

- SIL 4
- For automated processes with extremely high potential risks
- Scalable redundancy
- Hardwired systems

List of certificates

- Draft IEC 61508, Part1-7:1997 (up to SIL 4)
- ANSI/ISA-84.00.01-2004
- EN 50178:1997
- EN 61000-6-2:2001
- EN 61000-6-4:2001
- EN 60079-15:2003 ATEX (Zone 2, T4)
- ANSI/ISA-S 71.04 Class G3



Planar4 systems

Where ultimate safety counts

Planar4 systems integrate inputs, logic processing and outputs on every module. The application-specific programming of the systems is accomplished without software, but instead with various wiring techniques such as solder, Termipoint or Wire Wrap on the backplane bus board. All modules can be used in a redundant structure in order to increase availability.

Planar4

List of modules

Input modules							
Module	Inputs					Output	
Type	Functions	Proximity switch	Contact	(Ex)i	Line monitoring	1-signal	SIL
12100	4	•	•		•	•	4
13100	2	•	•	•	•	•	4
Output modules							
Module	Inputs				Output		
Type	Function	1-signal	With pre-logic	Switch	Fuse with monitoring	Power	SIL
22100	4	•	•			25 V/3 W	4
22120	1	•	•	•	•	25 V/24 W	4
22121	1	•	•	•	•	60 V/24 W	4
Relay modules							
Module	Inputs				Output		
Type	Function	1-signal	With pre-logic	Fuse	Fuse with monitoring	Switching voltage	SIL
32100	2	•	•		•	24 V=, 24 V-	4
32101	2	•	•		•	48/60 V=, 60 V-	4
32102	2	•	•		•	110 V=, 127 V-	4
32103	2	•	•		•	220 V=, 230 V-	4
32110	4	•	•	•		>=250 V=/-	2
Logic function modules							
Type	Functions			Logic function			SIL
42100	4			AND element with 5 inputs, 1 with OR			4
42110	8			AND element with 2 inputs			4
42200	7			Element combination AND/OR/blocking element			4
42300	8			OR element with 2 inputs			4
42400	4			Blocking element, direct and inverted output			4
42500	4			Selection element, 2oo3 voting			4
Time function modules							
Type	Functions			Description			SIL
52100	1			Time delay element			3
52110	4			Time delay element SEVA up to 15 s			3
Analog module							
Type	Functions			Description			SIL
62100	2			Analog limit monitor 0/4...20 mA			3
Communication modules							
Type	Functions			Logic function			SIL
80105	1			Communication module for Modbus			-
80106	1			Communication module for PROFIBUS DP			-
80107	1			Communication module for Ethernet (OPC server)			-
80110	1			Reset module			-

Specifications are subject to change.

Typical applications

- High Integrity Pressure Protection Systems (HIPPS)
- Emergency stop systems on drilling platforms
- Extremely time-critical safety circuits
- Primary shutdown systems

Operating conditions and CE-Mark

- EN 50178:1997 Electronic equipment for use in power installations
- IEC/EN 61000-6-2:2001 EMC, Generic Standards, Immunity for Industrial Environments
- IEC/EN 61000-6-4:2001 EMC, Generic emission standard, residential, commercial, and light industry
- EMC Directive
- Low Voltage Directive
- ATEX Directive

Additional local certificates available

Operating principles

De-energized to trip

Communication options

- OPC DA
- RS485 Alarm&Event
- PROFIBUS DP
- Modbus RTU

