System**Facts**

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 sytems 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.

SystemFacts | 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	Functions	1-signal	With pre-logic	Switch	Fuse with monotoring	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	Functions	1-signal	With pre-logic	Fuse	Fuse with monotoring	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, Emission standard for industrial Environment
- EMC Directive
- Low Voltage Directive
- ATEX Directive

Additional local certificates available

Operating principles

- De-energize to trip

Communication options

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