

GENERAL TECHNICAL REQUIREMENTS FOR PCD SYSTEMS

Extract form [22_300_General Technical Requirements for PCD Systems.doc](#)

Electromagnetic Compatibility (EMC) Standards to respect

Ref. - IEC61131-2 (2003-02)
- EN IEC 61000-6-2:2001 for Immunity
- EN IEC 61000-6-3/4:2001 for Emission residential/industrial

1.1 Electrostatic Discharge (ESD)

according EN IEC 61000-4-2
6 kV Contact Discharge (High Voltage Relay)
8 kV Air Discharge

1.2 Fast transients (Burst)

according to IEC 61000-4-4/1995, EN61000-4-4 resp.
4 kV direct for power supply terminals and digital I/O's
2 kV capacitive for process control I/O's
1 kV capacitive for no-process control I/O's

1.3 Transient impuls 1,2/50us (Surge)

according to IEC 61000-4-5, EN61000-4-5
2 kV common mode via 40 Ω /0.5 μ F, on power supply and all I/O's,
1 kV differential mode module powered on, asked by 'Germ. Lloyd'
0.5 kV common mode and differential mode via 10 Ω /18 μ F on power supply

Special for SEN: 3kV common mode and differential mode on power supply and all I/O's,
Module not powered

1.4 Radioelectromagnetic Field

according to IEC 61000-4-3 (to cover immunity for industrial environment)
10V/m noise immunity in the range of 80...1000 MHz, 1 kHz, 80% amplitude modulation


according to IEC 61000-4-6 (former ENV 50141/ 04.94)
10V/m noise immunity in the range of 0.15...80 MHz, 1 kHz, 80% amplitude modulation

according to IEC 61000-4-3, EN61000-4-3
(to cover immunity for residential, commercial and light industry)
3V/m noise immunity in the range of 27...500 MHz, no modulation

1.5 Noise emission

according to EN IEC 61000-6-3:2001 (max tolerated emission in residential environment)
EN IEC 61000-6-4:2001 (max tolerated emission in industrial environment)
Class B for conducted noise on power supply lines on the range of 0,15...30 MHz.
Class B for emitted noise in 'Absorberhalle' or TEM- cell in the range of 30...1000 MHz.

Quality Assurance CcPLC


D. Gumy