NCC2002 / NETWORK CONTROL CENTER

APPLICATIONS

Seismic Monitoring Solutions for safety related applications in:

- Nuclear Power Plants
- Nuclear Fuel Storage Plants
- Nuclear Fuel Enrichment Plants
- LNG Terminals
- Oil & Gas (sensitive sites)

NCC2002

The NCC2002 Network Control Center enables the interconnection of up to 16 MR2002 Strong Motion Recorders in a star topology network.

SYSCOM Instruments

NCC2002 Network control center

The NCC2002 Network Control Center enables the interconnection of up to 16 MR2002 Strong Motion Recorders in a star topology network. Data acquisition and recording is performed by the MRs, which act as autonomous units. Their activities are coordinated by the NCC. The NCC monitors on-line the operating status of each MR in the network and performs common trigger, time synchronization for all connected MRs (common sampling), high and low level alarm activation, etc.

The alarm combinations and levels as well as the common trigger master/slave configurations are all individually programmable, so the user can set-up the network as is best suited to his application, which acts as a software switch to provide normal access to any MR in the network. Data retrieval and parameter setting in all connected MRs is possible through the NCC.

The NCC may be connected directly to a central analysis computer for on-line monitoring and data analysis. A time code receiver may be connected to the NCC. It automatically sets the internal clock in the NCC. The NCC broadcasts the time information to all connected MRs.

Technical specification

Microprocessor/Firmware

Firmware

The multitasking operating system ensures communication with all connected MRs with the time code receiver and with the RS-232 port "at the same time". If vital tasks have to be executed, less important tasks will be delayed. The NCC collects information from the MRs by a polling procedure. The MR is always passive, i.e. it only replies to the questions of the NCC. This ensures a highly reliable communication between NCC and MR as any malfunction of the MR or the interconnection line is detected immediately.

Common trigger	Trigger voting logic (up to 32 AND combinations)
Common alarm	Trigger voting logic (up to 32 AND combinations) for two alarm levels (OBE/SSE)
Time base	Internal 20 ppm clock with battery-backup

Power Supply

Internal	Lead-acid battery, 8.5 Ah, for microprocessor only
External	10 .. 36 V DC
Power consumption	Microprocessor: 150 mA @ 12 V Communication unit: 50 mA @ 12 V (per MR)

I/O

Interfaces	RS-232 for PC
Interconnection to MR	Fiber-optic :850 nm Tx/Rx (up to 3 km) Current-loop: 4 - 20 mA Tx/Rx (up to 1 km)
Relays	3 Relays (rating max. 60 V DC) configurable: - Normally open or normally closed (individually) - For Alarm 1 or 2, Warning, Error or Common trigger

Display

LCD	Status information, Peak value of last event
LED	Power, Run, Polling, Error
Indicator Panel	Up to 32 LEDs to show alarm/trigger status of MRs (optional)

Dimensions

Housing	Aluminum 482.3 x 265.9 x 290.8 mm (LxWxH), 19" rack system
Weight	Approx. 10 kg
Protection degree	IP 54

Regulation

EMI/RFI	In compliance with IEC 61000
Environmental	In compliance with IEC 60068
Heat	0°C up to 50°C (with battery) -20°C up to +70°C (without battery)
Humidity	up to 100 % RH (non condensing)

Ordering Information

Please contact your local representative or SYSCOM Instruments SA

SYSCOM Instruments SA
Rue de l'Industrie 21
1450 Sainte-Croix
SWITZERLAND

T. +41 (0) 24 455 44 11

www.syscom.ch
info@syscom-instruments.com