Extinguishing control panels

Fire control panel “Solution F1” and “Solution F2” with automatic electronic control- and delay device according to EN 12094-1:2003
The successfully established within several years on the market and VdS approved fire control panel “Solution F2” can now be used as an extinguishing control system for single areas.

Additionally to the known features:

- 1–2 Loops, optional for addressable components by manufacturers either Apollo or Hochiki
- Power supply 230 VAC/24 VDC with 3.5 Ampere
- Control panel with membrane keyboard and graphic display
- USB- and RS-232 interface
- Numerous In/Outputs
- Connectability for fire brigade periphery
- RS-485 interface card
- Single indication of detector groups

The control panel is now capable to combine the standard FCP with an integrated electronic control device for fire-extinguishing systems according to EN 12094-1.

For this purpose, there is a new control board having a multiplicity of in- and outputs:

- 4 x conventional line to connect manual call points
- 4 x valve control line 24VDC/1.5A
- 2 x control line 0.5 A for sounders and visual alarm devices
- 2 x relay (dry contact) 30 VDC/1A
- 4 x OC-Output 30VDC/50mA
- 4 x monitored input line

The additional display board with optional key switch provides the essential display and offers free programmable LED’s, furthermore a configurable key switch for manual operation.

All functions are set via the NSC configuration software in the familiar convenient way.
The already over a decade reliable VdS-approved fire alarm system “Solution F1” is now able to gate and control multiple flooding zones. Up to nine cards can be embedded to the mainboard. Any combination of detector modules and extinguishing control cards is feasible. For example, this could contain eight extinguishing control cards and one loop module or the other way around.

Exactly the same control board, as for the single zone extinguishing control panel “Solution F2”, can be mounted in the “Solution F1” to operate multiple extinguishing zones.

Per each extinguishing zone there is one display board with optional key switch for the essential display and eventually required operating functions.

All known of the FCP “Solution F1” housing sizes are available. In addition NSC front panels are all based on 19 inch standard dimensions and with our mounting backboard for the system boards an easy installation in a 19 inch rack is trouble-free.

In case more than eight extinguish control boards are needed, several control panels can be cross-linked by using the ARCNET extension board to build up a network.

The new control board

The new control board provides Inputs and Outputs as follows:

- 4 x conventional line to connect Manual Call Points
- 4 x valve control line 24VDC/1.5A
- 2 x control line 0.5 A for sounders and visual alarm devices
- 2 x relay (dry contact) 30 VDC/1A
- 4 x OC-Output 30VDC/50mA
- 4 x monitored input line

All functions are set via the NSC configuration software in the familiar convenient way.
The components of extinguishing control device ECD

- Control board for FCP Solution F1 and F2
- Extension: Standard extinguishing interface SST (according to VdS)
- Connection cascading
- Display board and optional key switch for one extinguishing zone

The circuit diagram of the electronic control device

- ECD control board
- Solution F1 main board
- Solution F2 main board
- Third party FCP
- Loop module
- CHQ-FIO
- SST via Hochiki Loop

Technical data of the extinguish control board

- Supply voltage: 24 VDC
- Quiescent current - Ccontrol and display board: 90,8 mA
- Current consumption loop module: 0,2 mA
- Current consumption extinguishing interface: 0,2 mA
- 4 conventional lines: 20 VDC, 40 mA max., 3,3 K2 end of line
- 4 valve outputs: 24 VDC, max. 1,5 A, fused
- 2 alarm outputs: 24 VDC, max. 0,5 A, fused
- 2 relays: 30 VDC, 1A, dry contact
- 4 DC-outputs: 30 VDC, max. 50 mA, active low
- 4 monitored inputs: 3,3 K2 end of line, 680 Ω active
- Operating temperature: -5 to +40° C
- Humidity: Max. 95 %
- Safety class system: Depending on installation in FCP Solution F1 or in F2 Solution
- VoS approval (EN 12094-1): Applied for

Options with requirements according to EN 12094-1

- 4.17 Delaying the triggering signal: Adjustable warning time up to 60 seconds
- 4.18 Signal, which represents the flow of the extinguishing agent: Recognition via programmable input
- 4.19 Monitoring of the state / position of components: Recognition via programmable input
- 4.20 Stop-button: Connecting to conventional line, operation displayed
- 4.21 Control of flooding time: Adjustable flooding time up to 30 minutes
- 4.22 Launch of post flooding: Connection the call point „Second Release“ to a conventional line
- 4.23 Pure manual mode: Switched on via optional key switch, indicated by programmable LED’s
- 4.24 Control signals to devices within the fire-fighting system: Via valve output
- 4.25 Trigger signals to spare bottles: Via valve output and indicated by programmable LED’s
- 4.26 Control devices beyond of the fire-fighting system: Output / relay on the control board or output / relay inside the FCP or output module
- 4.27 Emergency stop-button: Connect to conventional line
- 4.28 Controlling of a holding flooding: Adjustable time of holding flooding up to 30 min.
- 4.29 Release of extinguishing agent for selected extinguishing zones: Free programmable via configuration software
- 4.30 Activation of alarm devices with different alarm signals: Realized by two separate alarm outputs, alternatively via loop sounders with different tones

Intruder Alarms
Fire Alarms
Access Control
CCTV