ChronologicalAlarmSystem (ZFM 2378)
Stand-alone or SISSYpro substation

Type designation:

ZFM 2378:
chronological reporting system
max. 512 messages and a
resolution of up to ≥ 1ms,
according to ISA-18.1 / DIN 19235,
configurable via USB interface
or remote programming
by SISSYpro

unitro - PSC-Standard

Photo shows ZFM with FME 32C

Construction / components
- For maximum **224 messages**: installation 19 "rack system 3x 6U (depth 270mm) for:
  1x power supply card 3U 6M with **power outage notification**, **1x CPU** 2378, 6U 4M and
  7x input cards FME 32 W, 32 per message, 6U 20M
  (24V DC / 60V DC / 110V DC / 220V DC **labeled** with 10 x 32mm **light field displays**)
- For maximum **512 messages**: installation 19 "rack system 1x 6U (depth 270mm) for:
  1x power supply card 3U 6M with **power outage notification**, **1x CPU** 2378, 6U 4M and
  16x input cards EK32, 32 per message, 3U 4M
  (24V DC / 60V DC / 110V DC / 220V DC with LED display)

Interfaces / Ports
- On the CPU:
  - 1x USB (for parameterization using an external PC)
  - 1x RS 485
  - 2x RS 232 (e.g. for printer)
  - 1x LON FTX
  - **16x relay outputs** change-over max. 125V 0.4A
- Connection: rear mounted edge-socket connector 32-pin wrap DIN 41612 mounting form D, colour-coded connection line 32x 0,25mm²
- DCF77 radio clock or just optional GPS Clock to synchronize to 1ms

Parameterization
- via integrated **USB interface** or **remote parameterization** by SISSYpro:
  cleartext logging with entering the plaintexts, **quiescent / operating current**,
  debounce time on the time scale of milliseconds, **switch-on delay** and
  flutter-signal handling on the time scale of seconds

Characteristics
- CPU 2378 processor card with time logical message storage
- Time synchronization of the SISSYpro control center or via built-in GPS / DCF clock
- Logging with date and time in ms resolution with 80 characters per message
- EMC-values: Higher immunity levels to UNITRO-PSC-Standard

Options
- Built-in printer

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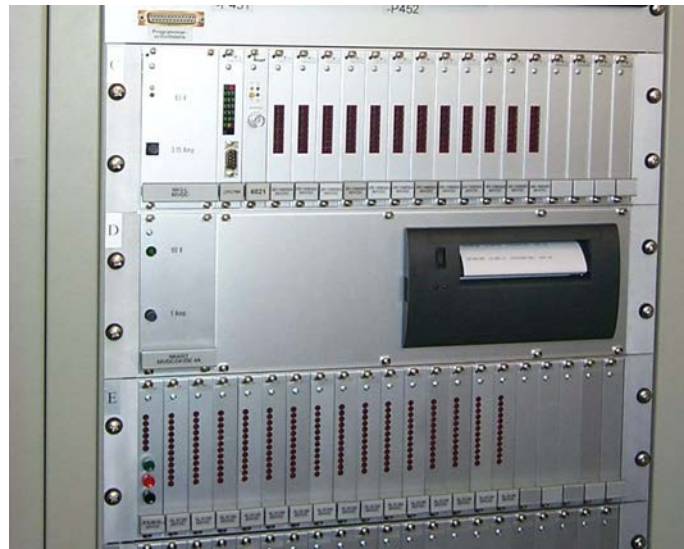|				
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subject to change

Photo shows ZFM with EK32 and optional built-in printer

Technical data:

1. Type of construction:
    19" rack mounting, 84M, 3U,
    mounting depth 270mm

2. Degree of protection:
    IP20

3. Weight:
    approx. 7kg,
    depending on equipment variant

4. Climatic conditions:
    in accordance with
    UNITRO-PSC-Standard

5. Connection:
    rear mounted edge-socket connector
    32-pin wrap DIN 41612 mounting form
    D, colour-coded connection line
    32x 0,25mm²

6. Supply voltages:
    24V DC   ± 10%
    48-60V DC   ± 10%
    110/125V DC   ± 10%
    220/240V DC   ± 10%
    230V AC   ± 10%
    voltage-adapted

7. Inputs (plug-in cards):
    EK32:   3U 4M, 16 channels
    FME 32: 6U 20M, channels
    24V DC
    60V DC
    110V DC
    220V DC
    voltage-adapted
    voltage tolerance ±10%

8. Resolution / query cycle:
    1ms to 10ms,
    depending on the configuration

9. Stages of development:
    from 16 to max. 512 messages

1. Transmission:
    LON FTT10A two wire (twisted-pair),
    78kbps, max. 2,7km

2. Bus connection:
    isolated transceiver, 500V disconnecting
    insulation voltage

3. Group-signal outputs:
    optional expandable to 256 outputs

4. Interfaces:
    1x USB (for programming using an external PC)
    1x RS485, 2x RS 232 ports (e.g. for printer)
    1x LON FTX,
    16x relay outputs change-over max. 125V 0,4A

5. System features:
    - DCF77 radio clock or just optional GPS clock to synchronize to 1ms
    - or Time synchronization of the SISSYpro control center
    - logging with date and time in ms resolution
    - 80 characters per message
    - selectable for quiescent / operating current per message
    - plain text logging, entering the full text with PC
    - **debounce time** on the time scale of milliseconds
    - **switch-on delay** on the time scale of seconds
    - **flutter-signal handling** on the time scale of seconds

6. Leakage distances and clearances:
    in accordance with UNITRO-PSC-Standard

7. EMC, immunity to interference:
    UNITRO-PSC-Standard,
    immunity higher degrees of severity according to
    the actual generic standards DIN EN 61000