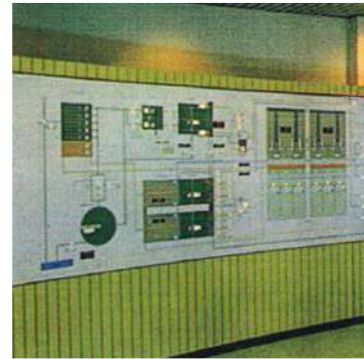


Subklew Mosaic system finds its application world wide for all types of industrial and communication network systems.

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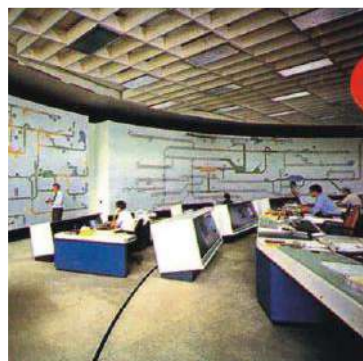
Railway



Petrochemical



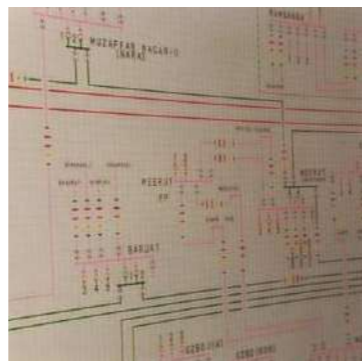
Iron & Steel



Distribution SCADA



Power Generation



Power SCADA



Generation Control

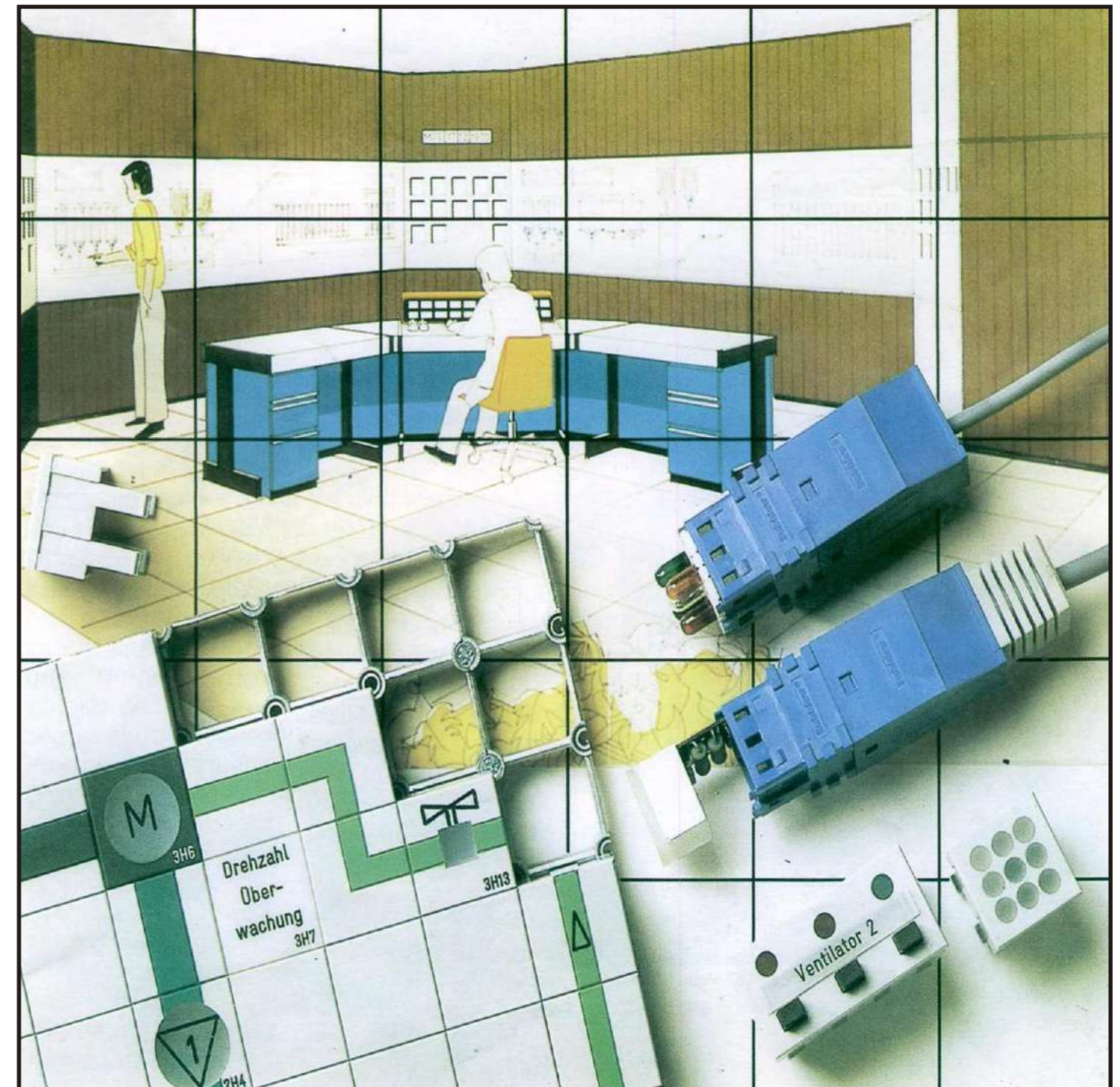


ISO 9001 : 2000
DNV
DET NORSKE VERITAS
Certificate No. 00023-2003-AQ-BDA-RvA



Power Generation

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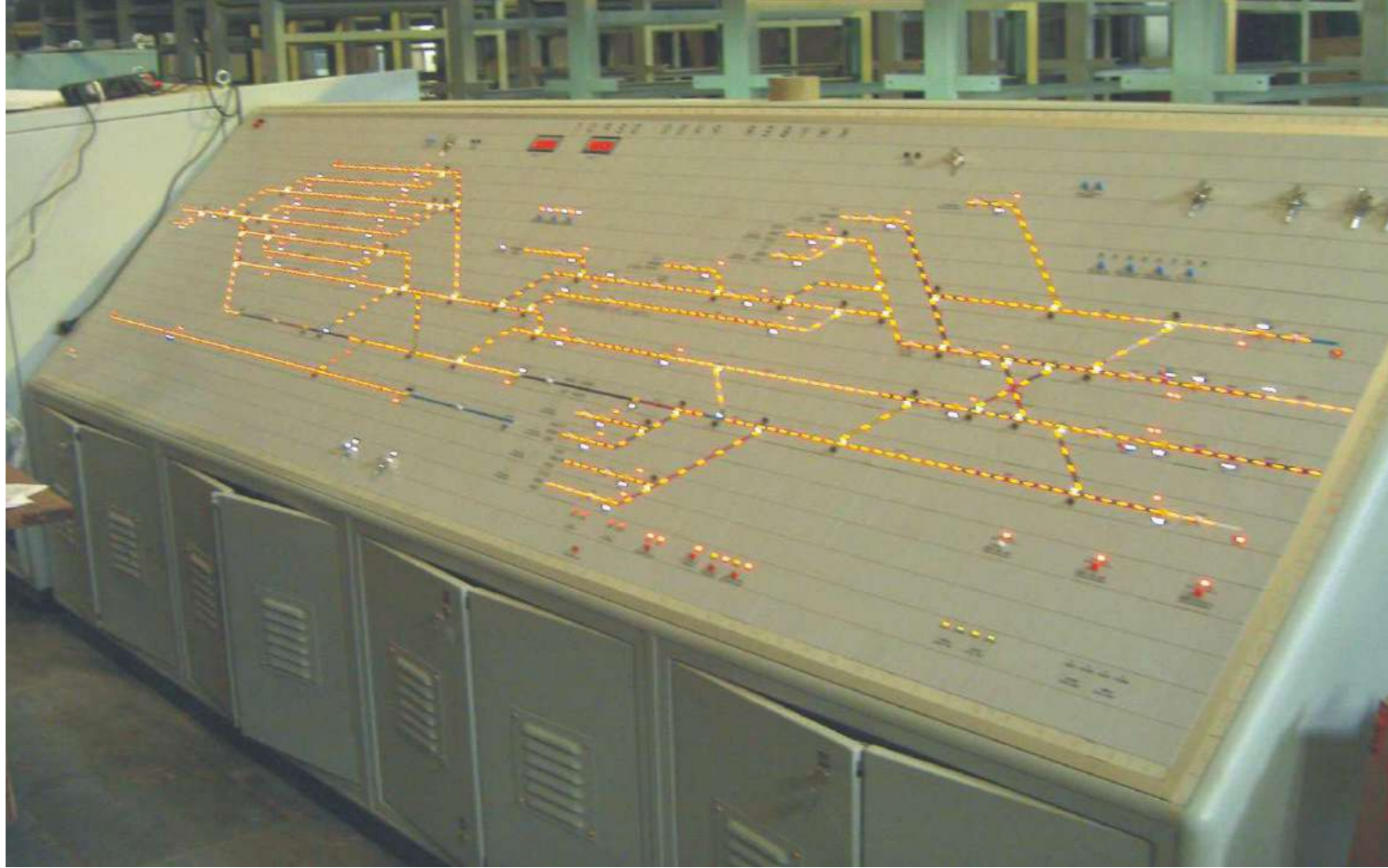
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Mosaic Tile System:

Mosaic tile system is the most planner friendly, reliable and economical approach to process visualization.

It is suitable for all kinds of control and monitoring indicator board, for process control, power networks, & security etc. The SM 24/48 mosaic tile equipment has been used worldwide since 1968. Subklew Mosaic System finds its application world wide for all types of industrial and communication network systems.



Aluminum Construction System:

The modular aluminum construction system (ALCOSY) offers total flexibility in the design and manufacturing of the mosaic system. The mosaic can be mounted as a mimic or control plaque. The inherent flexibility of ALCOSY in making desk and enclosures in all types of contours and shapes makes planning and layout of the mosaic system very effective.

Supporting Frame:

Consisting of aluminum section profiles, which are screwed together with corners and T-connectors, offering maximum flexibility for ease of modification. No welding and drilling is required for wooden, Plastic, Aluminum or Sheet metal paneling. Easy and weld free extensions are possible.

Supporting Grid:

The grid is made up of robust die-cast zinc alloy called "Zamak". Basic grid element for 24x24 tiles is suitable for arranging and extending to any desired combination of 24 or 48mm module. The grid supports straight or curved profiles.

Mosaic Tiles:

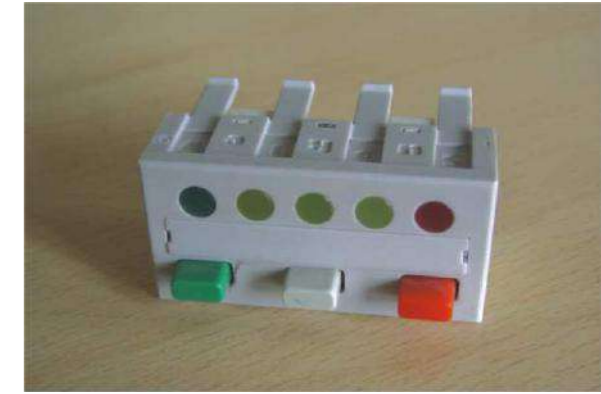
Hollow MacroLon (Polycarbonate) tiles are flame retarding (VO), anti-static, light resisting and non-reflecting. Slightly chamfered tile edges ensure a smooth surface even after long periods of time.

Standard Tiles, colors & sizes :

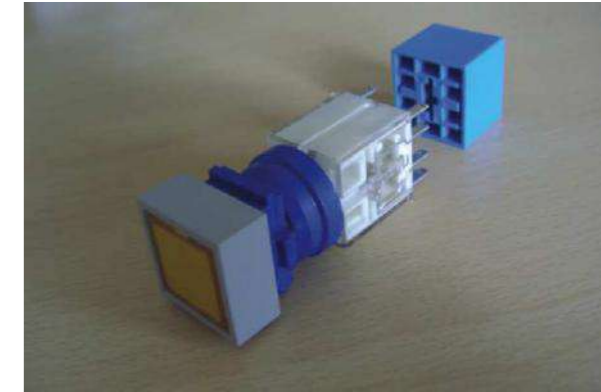
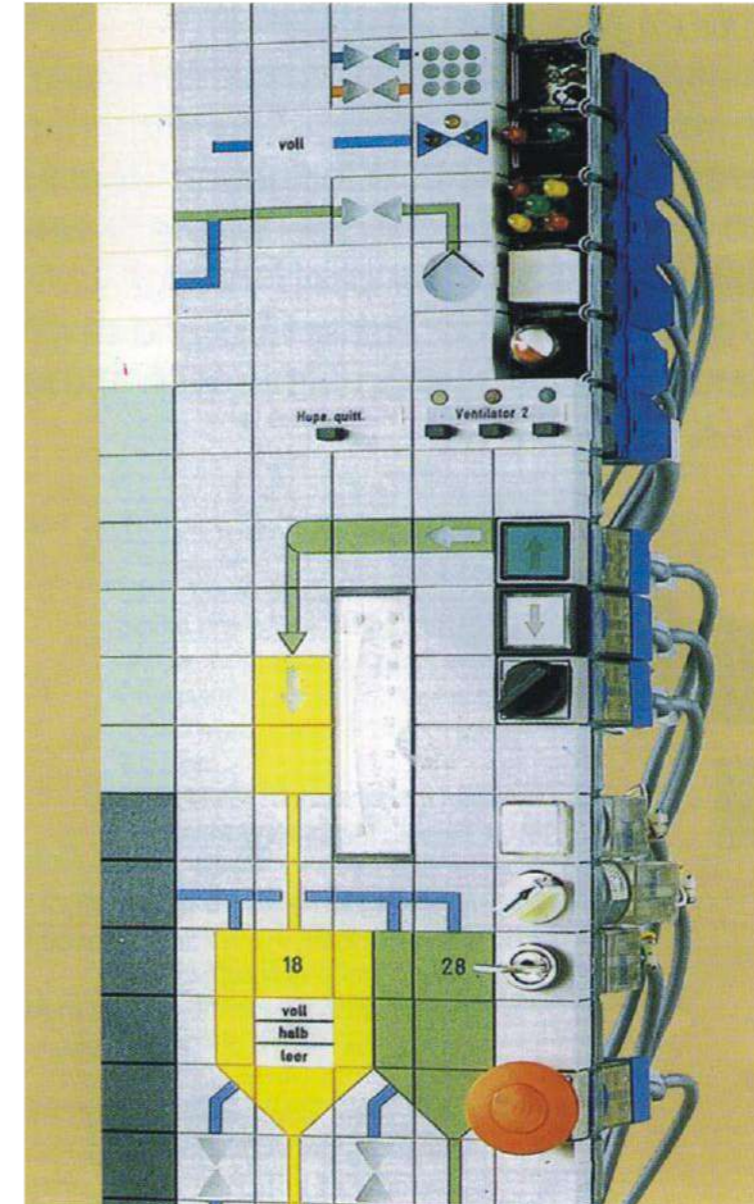
Light grey, is standard but beige, charcoal gray, light green, opaque tiles are also available on special request. Tile sizes: 24x24, 24x48, and 48x48mm

Modules:

A wide range of modules are available to meet customer's requirements. All modules have a plug in type connection for easy wiring. The wiring can be done in the factory or, at site with hand held crimping tool. Modules of various types are available in size 24X24, 48X24 and 48X48mm. The size of 24 mm supporting grid offers the designer do a detailed planning down to the smallest detail.



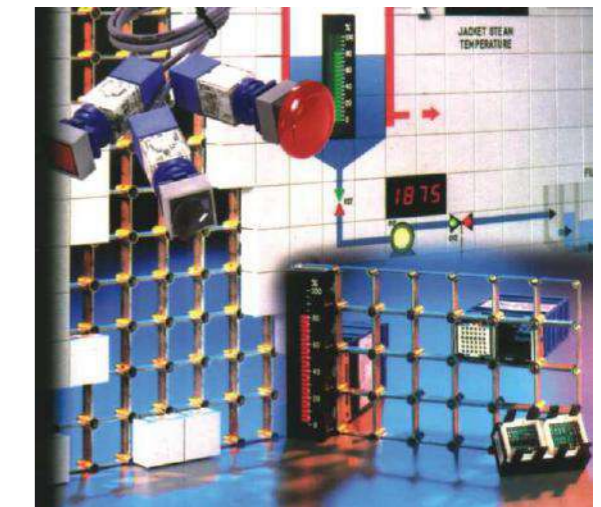
5 LED & 3PB MODULE(24X48mm)



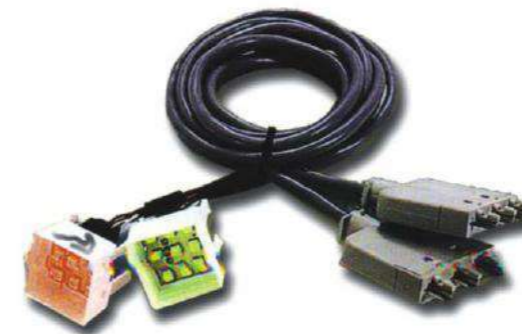
PB WITH 1NO+1NC (24X24mm)



CONNECTOR FOR ABOVE PB



MOSAIC GRID

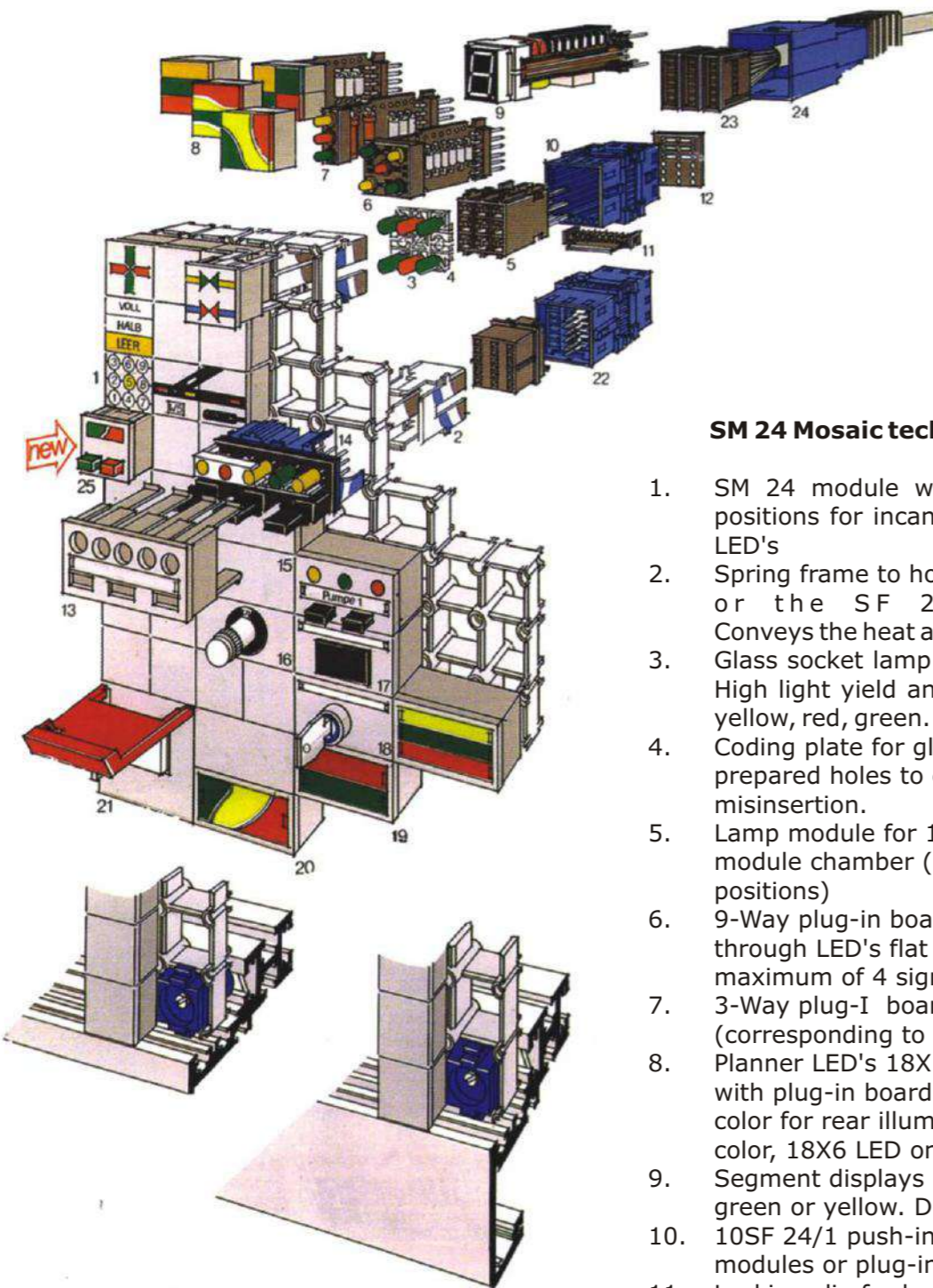


Mimics:

Mimic diagrams are made with colored symbolic tiles and letters are engraved on it. The mimic is screen printed on the tiles in various colors as per RAL or IS shades. The integrated active components indicate the process conditions.

Functional Module: 24 X 24

Main feature of the extended mosaic tile system is the large number of carefully matched elements and the high information density offered by plug in module with a 9-way indicator unit for lamp or peep through LED. Large area illumination, Planer LED and seven segment displays are possible with these modules.



SM 24 Mosaic technology (examples):

1. SM 24 module with a maximum of 9 indicator positions for incandescent lamps or peep through LED's
2. Spring frame to hold the SF 24/1 module chamber or the SF 24/2 plug-in modules. Conveys the heat away through the metal grid.
3. Glass socket lamp W2 X 4.6d under IEC 7004-94, High light yield and long life at 1W power. White, yellow, red, green.
4. Coding plate for glass socket lamp, with prepared holes to define the positions. Avoids misinsertion.
5. Lamp module for 1,2 or 3 lamps modules per module chamber (corresponding to 9 lamp positions)
6. 9-Way plug-in board modules for 5 mm peep-through LED's flat or domed. 1,2 or 3 color LED's maximum of 4 signals.
7. 3-Way plug-I board module chamber (corresponding to 9 lamp positions.)
8. Planner LED's 18X18 , 18X9, 18X6 and 9X9mm with plug-in board module. One color or two-color for rear illumination. 18X18 LED in three color, 18X6 LED one color.
9. Segment displays modular construction in red, green or yellow. Digit size 16mm.
10. 10SF 24/1 push-in module chamber for lamp modules or plug-in LED board module.
11. Locking clip for locking the lamp modules or plug-in LED board module.
12. Bus panel, a plug-in panel for linking common connections.

Functional Module: 48 x 24 The advantage of our hollow mosaic modules has been logically used and redeveloped into functional modules. With a variety of functions within the modules, a SF 24 plug socket behind the grid and the availability of variety of modules gives a wide range of possibilities for the design of the system.

SMF 24 function modules (examples)

13. SMF 48X24 module with a maximum of 5 LEDs, 1 title box of 42X6 mm and a maximum of 3 push buttons or push switches.
14. PCB panel for with LED's push buttons, push rods, hybrid circuit, contact pins and insulating cap.
15. SMF 48X24 module with 3 LED's title box an 2 push buttons.
16. SMF 48X24 module with selector switch, changeover switch or multiple- contact switch.
17. SMF 48X24 module with large push button, flat or raised (3mm) with title box 42X3mm.
18. SMF 48X24 module with key switch and colored identification ring. Title box 42X3mm. Lock cylinder made by kaba.
19. SMF 48X24 module with two title box 42X9mm, also can be illuminated with 36X9mm planer LED's in one or two colors.
20. SMF 48X24 module with one title box 42X18mm planer LED's in one or two colors.
21. SMF 48X48 module with emergency stop switch and red covering cap, and 42X3mm title box which can be illuminated with 36X9mm surface LED in one or two colors.
22. SF 24/2 connector module for functional modules, 1-18 contact position.
23. Connector housing, 6-way or 18-way for spring contacts with crimp connections. Suitable for cable sizes 0.1 to 0.35mm or 0.3 to 0.75 mm.
24. Connection cap with strain relief.
25. All connection contacts have 0.635mm crimped-type push on connectors. Tinned or optionally gold-plated.
26. SM 24 S module with one or two pushbuttons or push switches with flat LED's 18X6 mm, in single or double color, optional available with max. 3 through-LED's 5mm round or square.

Lighting Symbols

Standard illumination with incandescent lamp or peep-through LED's

LEDs developed by us in hybrid technology (for illuminating 9X9 to 18x18 mm or 6x36 to 18x 36 mm) provide high grid illumination. All LED's can be plugged; it is possible subsequently to change from incandescent lamp to planar LED without modifying the illuminated symbols or rewiring. The plug-in modules are simply exchanged.

Functional Module: 48 x 48 These modules are used for annunciator window, emergency push buttons etc., also these are used for various other customized mimic layouts



Control Desk and mimic diagrams for power stations on with SMF 48X24 function modules in mixed construction mode with SM 24 mosaic.



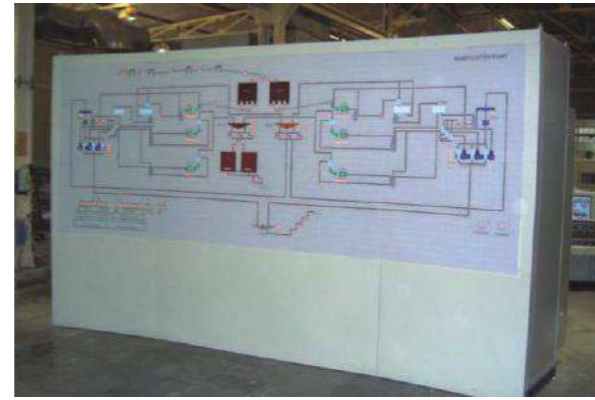
Control Panel and mimic diagrams with 48x48 tile system

Active Components: The various active components available are push buttons, switches semaphore indicators, which can be dismantled and installed from the plug base without change of wiring.

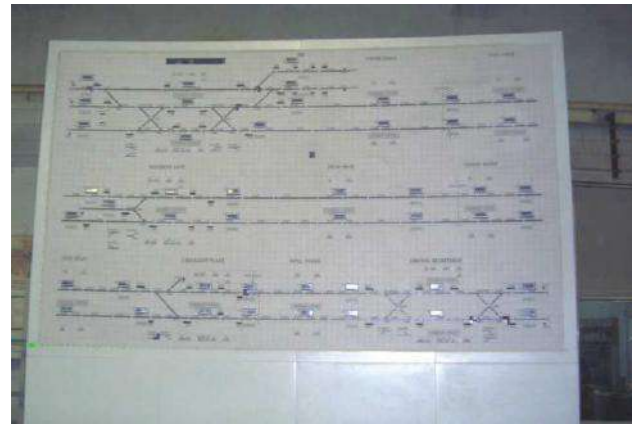
Our modular 7-segment displays with 14mm digit height are designed so as to be particularly

Advantages:

- ✎ Alteration or extension of mimic diagram can be done at low expenses with quite ease, without the need of any special tools and usually without affecting the plant operation.
- ✎ Various types of instruments, recorders and control elements can be mounted directly in the mosaic panel.
- ✎ The Mimic diagram can be very compact. The whole layout of any process can be shown in a compact space making visualization easy.
- ✎ Control boards of any size and shape (including curved) can be made with the mosaic tile system.
- ✎ Tiles are suitable for unlimited re-use.



PROCESS PLANT



RAILWAY TRANSPORTATION



POWER GENERATION

Design:

Our design tools and CAD applications make it possible to have a virtual control room layout before the equipment is installed. This makes it possible to make any alterations and enhancements before the actual production.

Installation and services:

We have the necessary manpower; infrastructure and facilities to do the installation work at any place in India. After sales support service is offered for the system for which we have full back up guarantee of our principals.

Integration:

The components of the mosaic tile system are imported from Supteam, Germany. We do the integration of the components with our enclosure system, screen-printing, engraving wiring and other layout detailing at Pyrotech.



POWER TRANSMISSION

