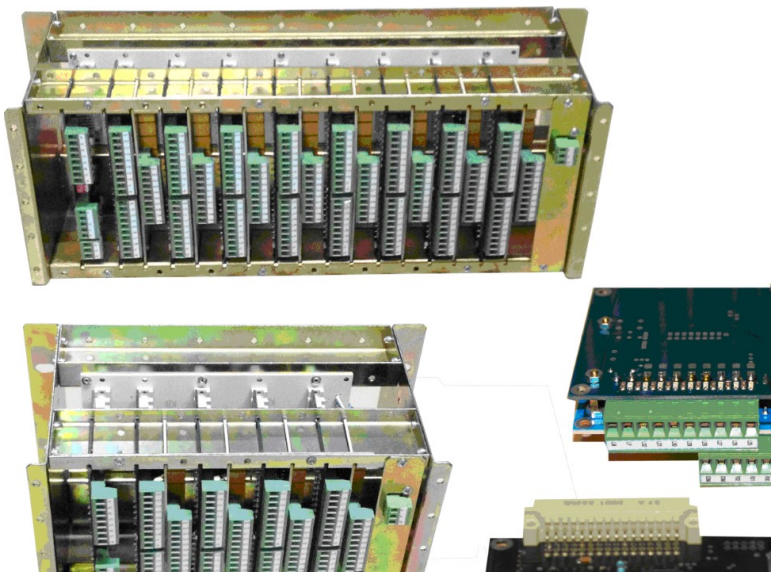
PROGRAMMABLE ALARM ANNUNCIATOR



Application

- Extension of the number of inputs and outputs of the Alarm System.
- Extension of the number of signal duplicating relays for SCADA, RTU, or DCS system
- Central process connection for MODBUS system.

Communication Interface

- MODBUS RTU

Description

The MEEKA-AN Alarm System, developed from the field-proven. MEEKA-AN range of alarm annunciators provides the user with the best combination of flexibility and reliability. The MEEKA-AN is designed as a complete alarm system with integral redundant supplies, audible, relays, and pushbuttons for the most cost-effective solution for monitoring critical process alarms.

The programmable alarm sequence, signal duplicating relays, dual horn relays, lamp, and power supply of MEEKA-AN are an ideal choice for all industrial sectors.

FEATURES & BENEFITS

Various Sizes

Various sizes are available from 16 to 64 alarm points.

Dimensions are as follows:

Large size (40 to 64 alarms)

- Height: 150mm
- Wide: 435mm
- Deep: 140 mm

Small size (16 to 32 alarms)

- Height: 150 mm
- Wide: 280 mm
- Deep: 140 mm

Fully Field Programmable

The flexible design allows the selection of a range of features and a choice of operational alarm sequences, which are compliant with ISA S18.1 1979. Alarms can be set to operate from either a normally open or a normally closed volt-free signal contact.

Connections

All connections are made on the rear of the unit using two-part quick disconnect rising clamp terminals accepting up to 12 AWG (2.5mm2) wire.

Inputs

All inputs are optically coupled and comply with the stringent requirements of the European Electromagnetic Compatibility and Low Voltage directives. The standard input voltage is 24VDC.

Common Outputs

As standard, each unit is fitted with three common relays: Critical Audible Relay, Non-Critical Audible Relay, and Common Alarm Relay. The common alarm relay is equipped with a reflash feature to indicate the occurrence of a new alarm within the unit

Auxiliary Relay

Each channel is equipped with an integral relay facility, typically used to initiate inputs to third-party devices such as RTU, SCADA, or DCS systems.

Integral Redundant Power Supplies

To maintain the highest level of reliability in safety-critical applications, all models are equipped with integrated dual power supplies. The standard unit is equipped with one fully isolated universal input supply, each capable of accepting either 110-250VAC/VDC. As an option, the secondary supply can be suitable for 24VDC if specified at the time of order.

Configure alarm way (Horn, Bell)

All alarm ways are configured by pushbutton controls Test, Accept, Reset, and input Configure (input Configure connect to customer terminal or Configure pushbutton)

To enter configure setup alarm ways, press and hold the pushbutton ACCEPT first and active input CONFIG together for 5 seconds (see connection diagram)

The lamp panel will light steady and the lamp first is light flashing. Parameter number 01 is selected.

Press the pushbutton ACCEPT to configure the alarm way (Horn, Bell)

+ Default is Horn

+ One pressing is Bell

+ Two pressings are Horn and Bell

+ Three pressings is no Horn, no Bell

+ Four pressings are returned, Horn

Press the pushbutton TEST as function DOWN and RESET as function UP for change other alarm ways are needed to configure.

To exit setup with store configure, press and hold the pushbutton ACCEPT first and active input CONFIG together for 3 seconds.

To exit setup without store configure, active only input CONFIG.

Auto Accept Timer

In unmanned applications it is common to have an automatic accept facility after a pre-set time, typically one minute; this is a standard feature on the MEEKA-AN.

Horn and Bell output are fitted as standard and each pair of alarm ways can be selected to operate either a critical or non-critical integrally mounted horn output. In substation applications, it is common for one extension relay to be used to operate the externally mounted station Horn and the second extension relay to be used to operate the externally mounted station Bell. Input response standard, the input response is set to 2ms for optimum performance, however, this delay is user programmable and can be reduced or extended to suit the exact site conditions.

Pushbutton Controls

Integral pushbuttons are provided for Test, Accept, Reset, and Configure (if any) which control the operation of the standard alarms within the instrument. The two power failure alarms have their pushbutton control lines wired to Customer terminals for connection to remote Functional Test, Accept and Reset

Order code

“MEEKA-AN-Vnn-ppp-xx-c”

MEEKA–AN:

programmable alarm annunciator

- Vnn: version of MEEKA-AN

- ppp: power supply

- 024: 24Vdc
- 110: 110Vdc
- 220: 220Vdc

- xx: number of alarm ways

- 08 - 16 - 24 - 32
- 40 - 48 - 56 - 64

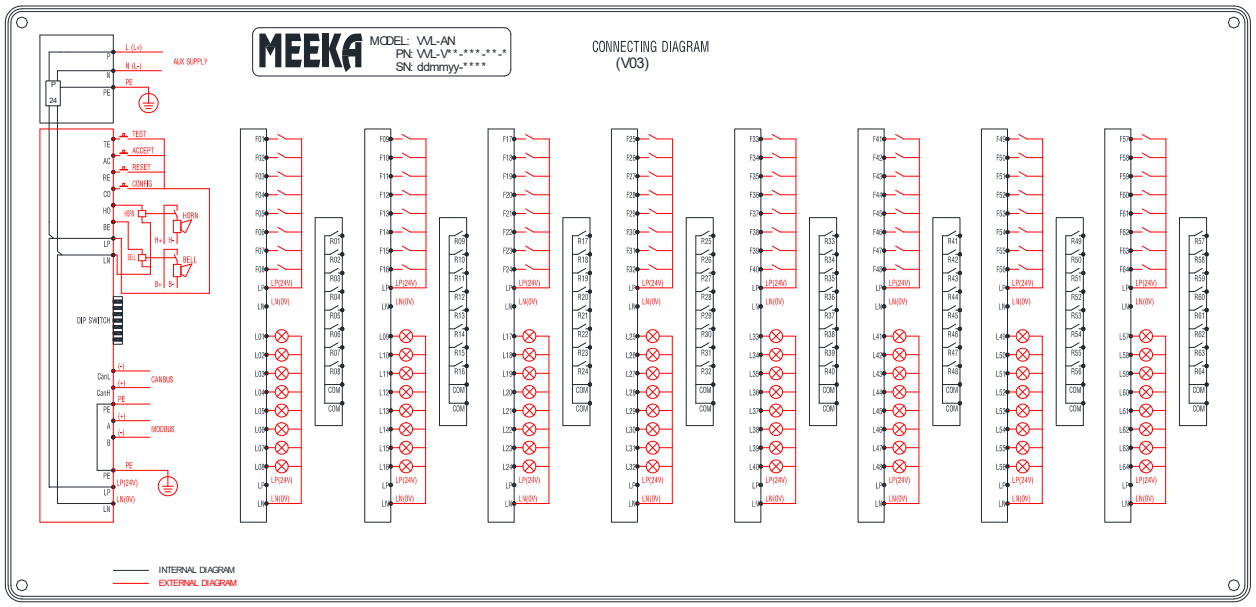
- c: communication interfaces

- N: None
- R: Repeated relay
- M: Modbus RTU

Example:

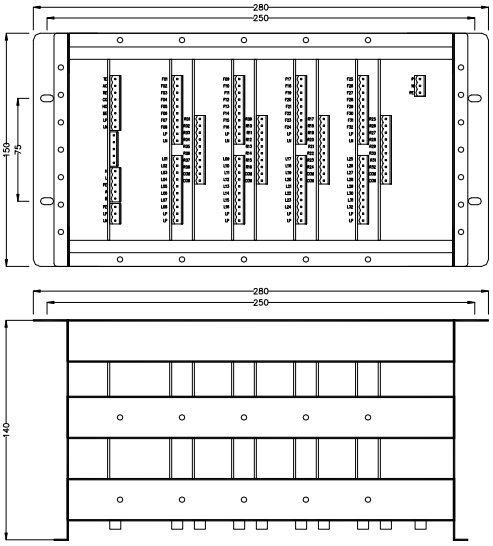
MEEKA-AN-V02-220-32-R

CONNECTIONS DIAGRAM

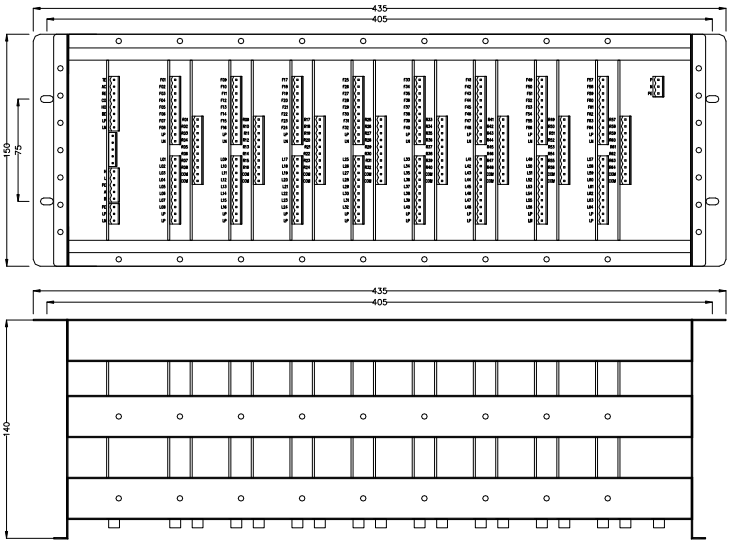


DIMENSION PLC

Small size



Large size

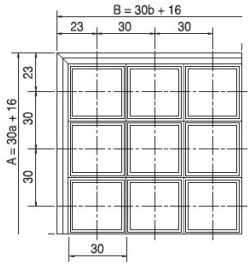


DISPLAY WINDOWS – TYPE 1

DESIGN

- Combination of display windows 30x30mm, LEDs inside.
- **4x4 / 4x6 / 4x8** (rows x columns) for **16/24/32** display windows.
- Number of rows and columns can be designed by the user.
- Installed on the front panel.
- Text area display 26x26mm
- Display content could be easily changed.

TECHNICAL DATA



Manufacturer	: **HanYoung – Korea**
Type	: **CD-SA**
LED	: 24Vdc – 0.68W – 20mA
Color	: White – Red - Orange
Text area display	: 26x26/window
Rows x Columns	: 04x04 / 04x06 / 04x08 / 04x10 / 04x12
	: 05x08
	: 06x06 / 06x08
Panel cut out (H/W)	: 30xRows+5 / 30xColumns+5

ORDER CODE

Display Windows: xx-DW-SA-rrcc-y

xx Number of display window: **16/24/32/36/40/48**
rr Number of Rows
cc Number of Columns
y Color: **W**-White / **R**-Red / **O**-Orange

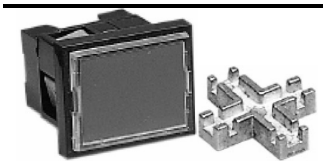
Example: 32-DW-SA-0408-W

DISPLAY WINDOWS – TYPE 2

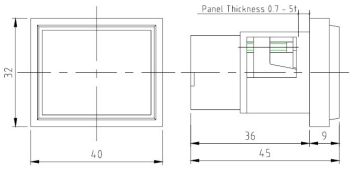
DESIGN

- Combination of display windows 40x32mm, bulb lamps inside.
- **4x4 / 4x6 / 4x8** (rows x columns) for **16/24/32** display windows.
- Number of row and column can be designed by user.
- Installed on front panel.
- Text area display 33x25mm
- Display content could be easily changed.

TECHNICAL DATA



CR-402-24 **CR-40**



Manufacturer	: **HanYoung – Korea**
Type	: **CR-402-24**
Lamp	: 24Vdc – 1W
Text area display	: 33x25/window
Cross connector	: **CR-40**
Rows / Columns	: 04x04 / 04x06 / 04x08 / 04x10 / 04x12
	: 05x08
	: 06x04 / 06x06 / 06x08
Panel cut out (H/W):	32xRows-7 / 40xColumns-7

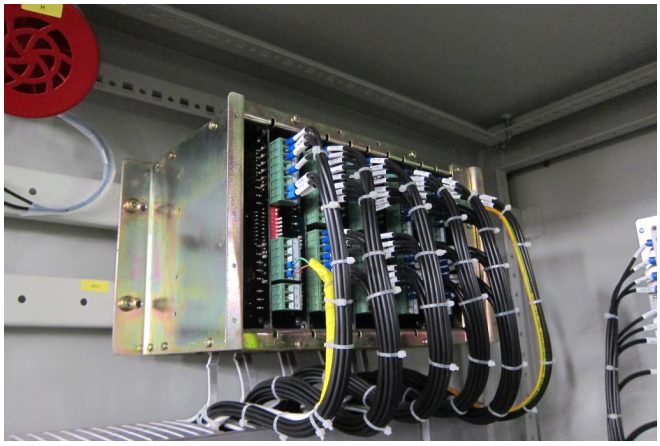
ORDER CODE

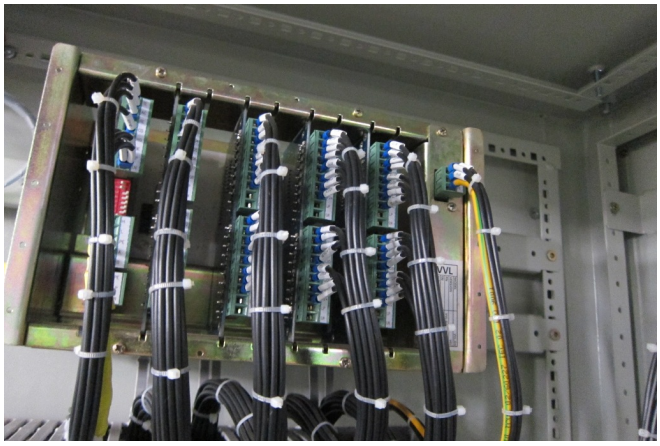
Display Windows: xx-DW-CR-rrcc

xx Number of display window: **16/24/32/36/40/48**
rr Number of rows
cc: Number of columns

Example: 32-DW-CR-0408

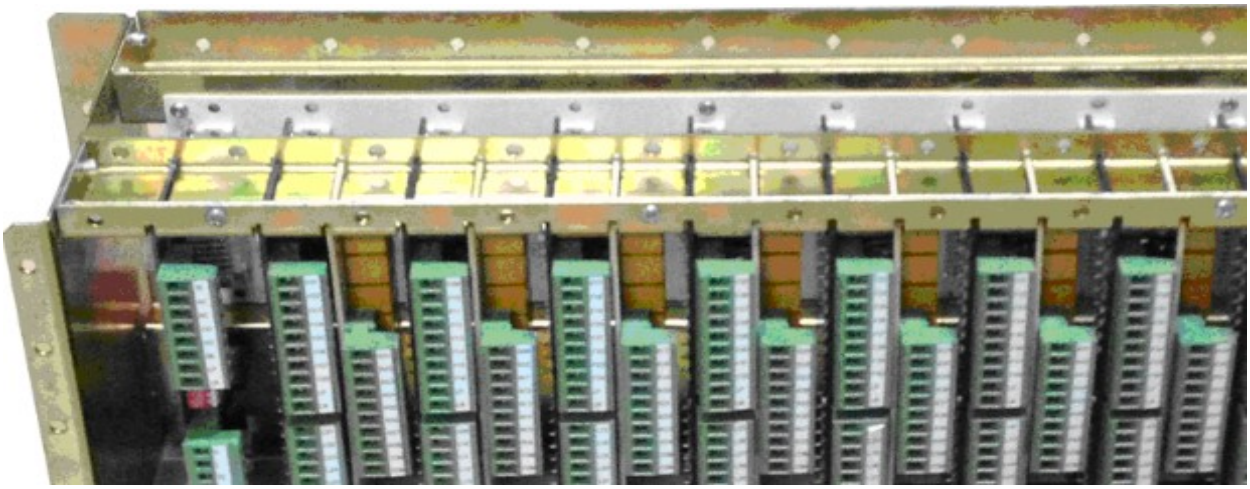
INSTALLATION





PLCs are installed inside the panel

Display Windows (type CD-SA) are installed in front of the panel



	I/O Slot #1		I/O Slot #2		I/O Slot #3		I/O Slot #4		I/O Slot #5		I/O Slot #6		I/O Slot #7		I/O Slot #8		
TEST	F01		F09		F17		F25		F33		F41		F49		F57		P
ACCEPT	F02		F10		F18		F26		F34		F42		F50		F58		N
RESET	F03		F11		F19		F27		F35		F43		F51		F59		PE
CONFIG	F04		F12		F20		F28		F36		F44		F52		F60		
HORN	F05		F13		F21		F29		F37		F45		F53		F61		
BELL	F06		F14		F22		F30		F38		F46		F54		F62		
LP	F07		F15		F23		F31		F39		F47		F55		F63		
LN	F08	R01	F16	R09	F24	R17	F32	R25	F40	R33	F48	R41	F56	R49	F64	R57	
DS01	LP	R02	LP	R10	LP	R18	LP	R26	LP	R34	LP	R42	LP	R50	LP	R58	
DS02	LN	R03	LN	R11	LN	R19	LN	R27	LN	R35	LN	R43	LN	R51	LN	R59	
DS03		R04		R12		R20		R28		R36		R44		R52		R60	
DS04		R05		R13		R21		R29		R37		R45		R53		R61	
DS05		R06		R14		R22		R30		R38		R46		R54		R62	
DS06		R07		R15		R23		R31		R39		R47		R55		R63	
DS07	L01	R08	L09	R16	L17	R24	L25	R32	L33	R40	L41	R48	L49	R56	L57	R64	
DS08	L02	COM	L10	COM	L18	COM	L26	COM	L34	COM	L42	COM	L50	COM	L58	COM	
CAN(+)	L03	COM	L11	COM	L19	COM	L27	COM	L35	COM	L43	COM	L51	COM	L59	COM	
CAN(-)	L04		L12		L20		L28		L36		L44		L52		L60		
PE	L05		L13		L21		L29		L37		L45		L53		L61		
MOD(+)	L06		L14		L22		L30		L38		L46		L54		L62		
MOD(-)	L07		L15		L23		L31		L39		L47		L55		L63		
PE	L08		L16		L24		L32		L40		L48		L56		L64		
LP(24V)	LP		LP		LP		LP		LP		LP		LP		LP		
LN(0V)	LN		LN		LN		LN		LN		LN		LN		LN		

CONNECTING

Push buttons

TEST : Test – NO contact
ACCEPT : Accept – NO contact
RESET : Reset – NO contact
CONFIG : Configure (if any) – NO contact
LP(24Vdc) : common point of push buttons Test-Accept- Reset-Configure

Alarm devices

HORN : Horn (24Vdc) – for Trip signals
BELL : Bell (24Vdc) – for Alarm signals
LN(0Vdc) : Horn-Bell common point

Communication Interface

CAN (+) / (-) : Canbus protocol interface
PE : Earthing
MOD (+) / (-) : Modbus protocol interface

Output 24Vdc

PE : Earthing
LP-LN : 24Vdc

Input signals

F01 to F64 : Input signals – NO contacts
LP (24Vdc) : common point of input signals

Output signals

L01 to L64 : Display windows 01-64 (24Vdc)
LN(0Vdc) : common point of display windows

Repeat signals

R01 to R64 : repeated input signals NO contacts
COM : common point NO contacts

Power Supply

P-N : 110Vdc or 220Vdc
PE : Earthing