EPESOL

DIGITAL ANNUNCIATOR
EDA01

EDA01 is specially designed to address the basic conventional needs for the continuous monitoring of status and parameters and subsequent annunciation. The event is specified by the field input signal changing from low to high. Each event has a dedicated display window with user defined text inscribed for event annunciation. EDA01 comes with the sequence M with options but any of the ANSI/ISA-S18.1-1979 (R1992) / IEC 62682:2014 alarm sequences can specially be ordered.

Operation

EDA01 continuously checks the incoming field input signals. Due to flexible architecture, all the standard sequences can be incorporated through customised ordering . However, the default sequence is as below:

- The field input of annunciator is a rising edge pulse triggered latching input. When the input changes from low to high, within 20 ms the relevant window(s) starts flashing and the output contact (Form A / NO) energises for an audible alarm/hooter* .
- The ACKNOWLEDGE† input of EDA01 is a rising edge pulse triggered non-latching input. So when it gets activated, the faulted window(s) gets stabled incessantly and output contact opens (thus stopping the alarm or hooter).
- In a special annunciator model when the field input signal changes from high to low before the RESET input of annunciator gets high, the window(s) will start flashing again and the flash rate will be half the initial fault flash rate to indicate the removal of the fault.
- The RESET† is a rising edge pulse triggered non-latching input. When it gets high the illuminated window(s) gets off.
- In case of persistence of fault, the window(s) shall continue to stay lit even when the RESET input is high.
- The LAMP TEST† input of annunciator is a straight making non-latching input which illuminates all windows for the duration of the time it remains high.

* Hooter/Alarm are not parts of EDA01. They are sold separately, please contact for details.

† ACKNOWLEDGE, RESET and LAMP TEST inputs are normally configured via external push buttons which are sold separately. However 12 windows annunciator has the option for internal pushbuttons which are provided on the front of annunciator.

- 20 years field proven
- 4, 8, 12 and 16-windows design
- Super bright long life LEDs
- One output contact (Form A) for alarm, hooter or HMI/SCADA
- *ACKNOWLEDGE*, *RESET* and *LAMP TEST* inputs
- Universal power supply for broad AC/DC range applications
- Dielectric withstand, impulse and insulation resistance compliance with IEC 60255-5

Applications

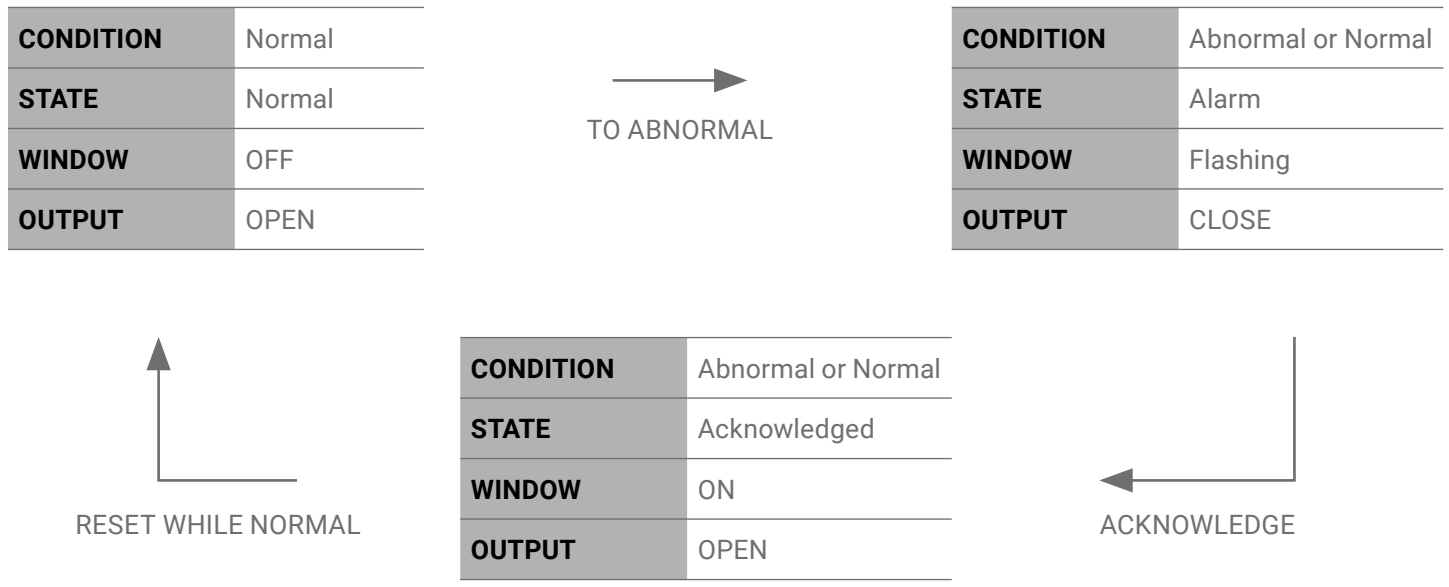
- Power plants
- Grid stations / substations
- Switchgear control
- Protection & control systems
- Microwave relay sites
- Industrial event annunciation
- Steel, sugar, cement and chemical industries applications
- Aviation systems
- Heat treatment plants
- Safety management systems
- Labour management systems
- Telephone exchanges
- Alarm (fire, security, etc.) systems
- Solar system control signalling
- UPS / back-up supply signalling

Default Sequence Table

Sr.	Process Condition	Input Operation	Sequence State	Window	Output	Remarks
1	Normal	—	Normal	OFF	Open	
2	Abnormal	—	Alarm	Flashing	Close	Latched
3	Abnormal or Normal	Acknowledge	Acknowledged	ON	Open	Manual Reset Required
4A	Abnormal	Reset	Input operation of *Reset* during *Abnormal* condition will do nothing. Please proceed back to Sr. # 3			
4B	Normal	Reset	Normal	OFF	Open	Manual Reset

***DEFAULT SEQUENCE TABLE** FOR SEQUENCE M*

Default Sequence Diagram



***DEFAULT SEQUENCE DIAGRAM** FOR SEQUENCE M-14, WITH MANUAL RESET*

Available Sequences

EDA01 comes with the default sequence as illustrated and described above but any other sequence can also be ordered specially as per customised definitions. The default sequence can be according to the "Annunciator Sequences and Specifications" ANSI/ISA-S18.1-1979 (R1992) as described below or any other as per custom defined sequence:

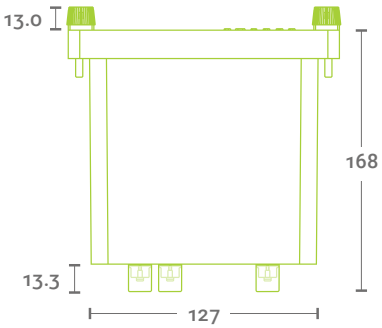
- Sequence A, automatic reset with options
- Sequence R, ring-back sequence with options

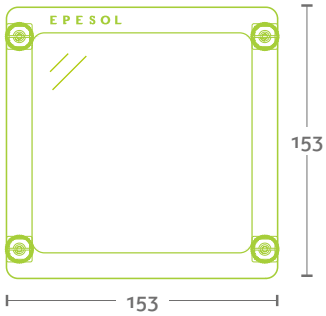
Availability of these sequences are dependent on MOQ (minimum order quantity).

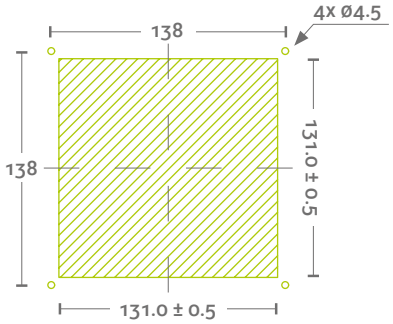
DIGITAL ANNUNCIATOR
EDA01

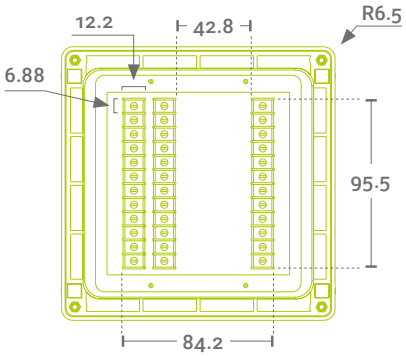
EPESOL

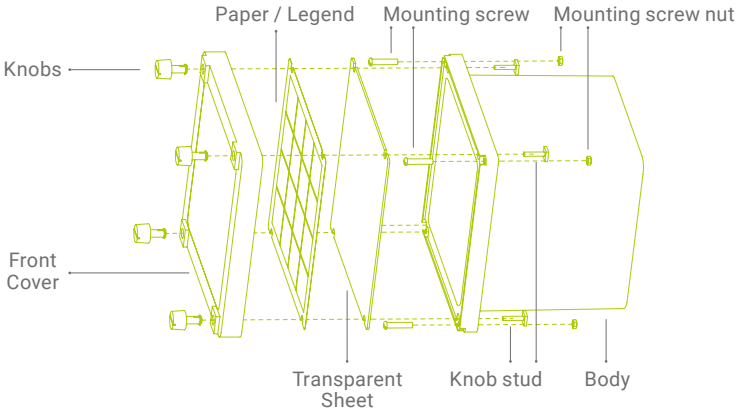
Mechanical dimensions (mm)



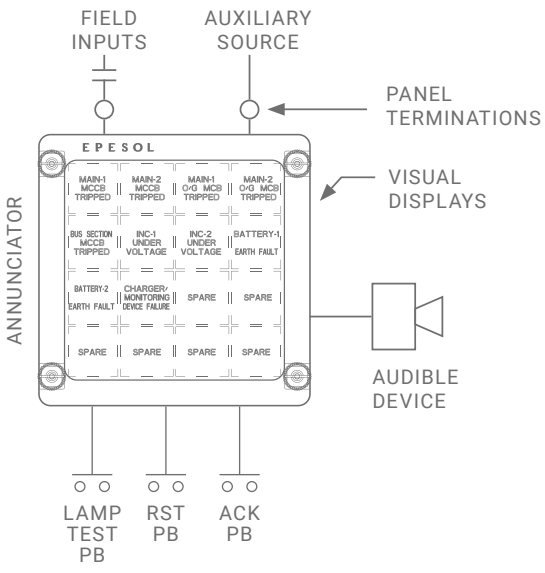




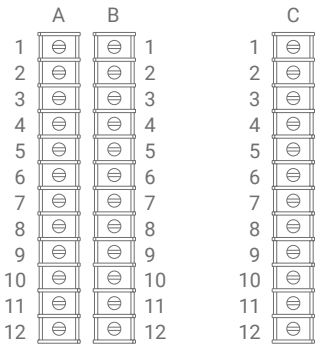




Integral Logic Arrangement



Terminal Scheme



Each designation has two terminals for the purpose of looping. For detailed wiring for continuous connection please refer to Manual or Quick Reference Guide provided separately.

DSG.	Description
A1 - A2	Lamp test
A3 - A4	Acknowledge
A5 - A6	Reset
A7 - A8	Earthing
A9 - A10	Dry Output
A11 - A12	Dry Output Com.
B1	Aux. supply L / +
B2	Aux. supply N / -
B3 - B10	8x Windows inputs
B11 - B12	Com. for B3 - B10
C1	Com. for B1
C2	Com. for B2
C3 - C10	8x Windows inputs
C11 - C12	Com. for C3 - C10

DIGITAL ANNUNCIATOR
EDA01

EPESOL

Technical Specifications

Auxiliary supply		
Rated voltages	U_n	110/120/230/240 V ac 110/125/220 V dc
Operative ranges	V	100 — 275 V ac @ 50/60 Hz 100 — 375 V dc
Rated Power	W	~7 W Max.
Field inputs (opto - isolated)		
No. of inputs		total 16 channels
Type		Rising edge (default) Falling edge
State		Latching (default)
Control voltage		Same specs as auxiliary supply
Debounce time	ms	19 ms (default) *factory adjustment possible*
External inputs		
Acknowledge	Type	Rising edge (default)
	State	Non-latching
Reset	Type	Rising edge (default)
	State	Non-latching
Lamp Test	Type	Make contact (default)
Control voltage		Same specs as auxiliary supply
Output (dry - contact)		
No. of relays		1
Form		Form - A
Carry Continuous		5A at 250 V ac / 30 V dc
Breaking		1250 VA / 240 W
Make and carry		8 A
Load		Resistive (cos Φ = 1)
Operate time		20 ms
Release time		10 ms
Sequence (as per ANSI/ISA-S18.1-1979 (R1992))		
Default		Sequence M
Available		Sequence A and Sequence R with options
Visual display (windows)		
Size	H x W	30 mm x 30 mm (16-windows)
Colours		White (default) Red, Green, Blue
Illumination		LEDs
Legends		Factory supplied (default) Self printed (refer to manual)
Flash rate		40 flashes / minute
Termination		
Type		U / Spade / Fork
Wire		0.5 — 2.5 mm^2 (20 — 14 AWG)
Screw		M3

Performance

Type	IEC Std.	Details
Protection		
Impulse Voltage	60255-5	5 kV, 1.2/50 µs
Dielectric withstand	60255-5	2 kV, 50Hz, 60s
Insulation resistance	60255-5	500 V DC, 5s
Over-voltage category	61010-1	III
Climatic		
Operation	068-2-1/2	-10 — 15 — 30 — 55 °C
Storage	068-2-1/2	-25 — 15 — 30 — 70 °C
Relative humidity	068-2-30	95% non-condensing
Mechanical		
Sinusoidal vibration	255-21-1	Class II; 2 g, 10...150 Hz
Shock and Bump	255-21-2	Class II; 30g, 11 ms
Engress protection	60529	IP54 except terminals

Ordering Information

EDA01 — ** * * * * * * *

Windows
- *04*
- *08*
- *12*
- *16*

Display colour
- *W* White
- *R* Red
- *G* Green
- *B* Blue

Colour arrangement
- *0* Uniform
- *1* Custom defined

Field input
- *0* Rising edge
- *1* Falling edge

Debounce time
- *0* Default
- *1* Custom defined

Windows legend / litra
- *0* Factory supplied
- *1* Self printed

Sequence
- *0* Default
- *1* Custom defined

Flash rate
- *0* Default
- *1* Custom defined

Customisation is subject to MOQ.