

# MCN-1

## Aids to Navigation Monitor



TIDELAND ENGINEERED

The MCN-1 Aids to Navigation Monitor is Tideland's unique approach to create a multi-purpose remote monitor and control device to suit most NavAid installations using a simple small screwdriver.

Designed to satisfy the majority of customer needs and requires no computers or programmers. No technical experience of Tideland products are required to setup most installations, furthermore Tideland lantern types are automatically detected during power-up making installation a quick and easy task.

The MCN-1 product is an advanced replacement for existing Tideland NA-1 units, yet flexible enough to monitor NavAids used on offshore platforms, lighthouses and buoys.



MCN-1 with NEMA 4 Housing

### FEATURES

#### 4-position switch:

- Position #1 selects display format. OFF = Raw value display (NA-1 type). ON= Interpreted values (MC-1 type)
- Position #2 selects 12VDC or 24VDC input nominal power.
- Position #3 acknowledges the presence of fog signals if used.
- Position #4 selects monitored output relay function. OFF = energized on fail. ON = Failsafe, energized when normal

#### 16-position switch:

- Positions 0 to 7, allows operator to set the quantity of monitored lanterns ( 1 to 8)
- Position 8 for fog signal with no lanterns
- Position 9 to F, allows operator to monitor 1 to 8 Tideland lanterns with a SyncMaster installed.



MCN-1

## FEATURES Continued

### Output Relays:

#### Lantern status:

- Four contacts report last lamp status of up to eight lanterns. Each contact provides the status of two lanterns.
- One contact to report one or more lantern failures
- One contact indicates low lantern battery voltage

#### Fog Signal status:

- One contact to indicate a fog signal failure
- One contact indicates low battery voltage

## ADVANCED FEATURES

- Ability to setup an automatic reporting schedule to send daily reports to a central location
- Configure Digital Outputs as momentary and/or inverted to meet specific needs
- Configure Digital Inputs, set input delay timing
- Configure the usage of a Modbus interface to allow monitoring by other SCADA equipment

### Built-In Lightning Protection

MCN-1 circuitry is lightning protected and supplied with earth-ground terminals.

### In-the-field Diagnostics

The MCN-1 includes a connection for Tideland's Field Configuration Utility (FCU) which allows for advanced setup, device configuration, device monitoring and debug screen for diagnostics or fault finding using a laptop computer.

### Communication Modules

The MCN-1 contains several built in RS-232 and RS-485 channels supporting most communication mediums: Cellular modems, Dial-up modems, VHF/UHF, direct wire, satellite, IP or AIS information systems.

## SPECIFICATIONS

Communication Channels	
RS-232	4 channels
ASCII Sync	3 channels
RS-485	2 channels
Analog Inputs	Eight (8); 0 to 40 VDC, 10-bit conversion resolution
Digital Inputs	Eight (8); 0 to 40 VDC (0 to 25 VAC)
Digital Outputs	Eight (8); 0 to 40 VDC; 100 ma
Power	
Input Voltage	9 to 36 VDC
Input Power	1 watt max
Temperature Range	-40°C to +70°C
Fiberglass Enclosure	
Protection	IP66
Length	400 mm (15.7 in)
Width	330 mm (13.0 in)
Height	216 mm (8.5 in)

NOTE: Specifications are subject to change.

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ISO 9001:2008  
Certificate  
Number: 30061

### ISO 9001:2008

Tideland Signal Corporation maintains ISO 9001:2008 accreditation. It is company policy to provide products and services that meet the highest standards of quality in the industry.

### Membership Organizations



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