HONEYWELL NAVITAS™ LIGHTS MANAGER LS

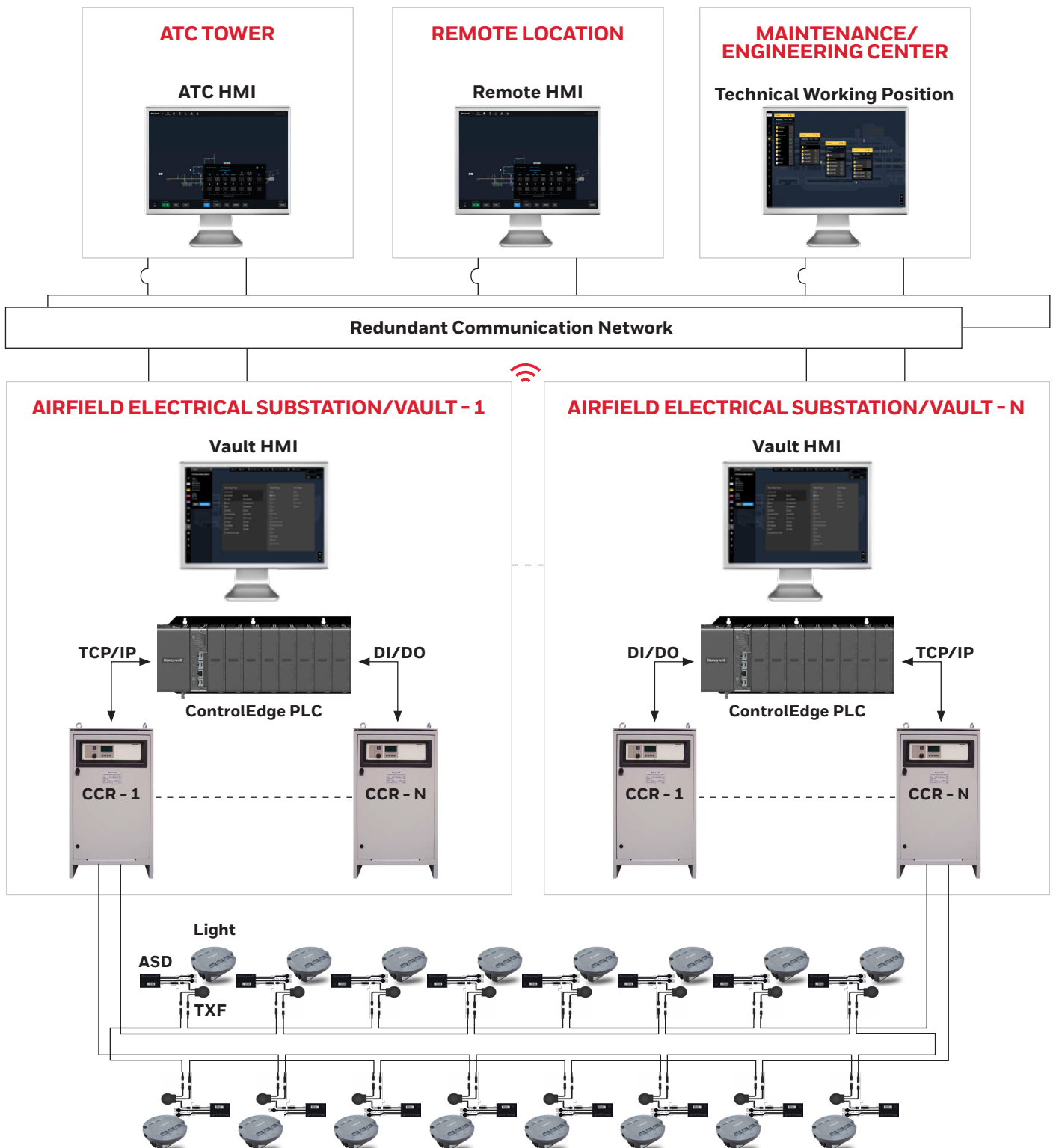Airfield Lighting Control and Monitoring System

Honeywell

Honeywell NAVITAS™ Lights Manager LS is a purpose built solution for Airfield lighting control and monitoring system. The system is built on the Honeywell's proven industrial Software platform and ControlEdge PLC hardware.

ControlEdge PLC is one of Honeywell's first controllers supporting Honeywell's IIoT ready initiative. ControlEdge™ PLC combined with Honeywell Panel PC HMI provides secure connectivity and tight integration to AGL systems – with easy configuration, efficient operations, and reduced maintenance.

This Industrial grade ALCMS platform supports integration of CCR's through TCP/IP and In built Digital input and output modules for CSS control.
The system is configurable to any brilliancy levels such as 3 step, 5 steps etc.

Compliance with standards:
- Compliance to ICAO Annex 14, Vol. 1, para. 5.3 and 8.3 and Aerodrome Design Manual part 5, para. 3.4 and 3.7
- Compliance to FAA AC 150/5345-56B Current Edition: L-890
- ControlEdge PLC – ISASecure Level 2 Certification

ATC TOWER

ATC HMI

REMOTE LOCATION

Remote HMI

MAINTENANCE/ ENGINEERING CENTER

Technical Working Position

Redundant Communication Network

AIRFIELD ELECTRICAL SUBSTATION/VAULT - 1

Vault HMI

TCP/IP

DI/DO

ControlEdge PLC

CCR – 1

CCR – N

AIRFIELD ELECTRICAL SUBSTATION/VAULT - N

Vault HMI

DI/DO

TCP/IP

ControlEdge PLC

CCR – 1

CCR – N

Light

ASD

TXF

SYSTEM DESIGN

- Lights Manager LS system is industrial gade software & hardware pltform and complies with the latest international standards for the communication and design of open system interfaces.

- Operates on windows operating system and uses commercial off-the-shelf servers, network equipment, monitors and accessories.

- The Control and monitoring equipment, Honeywell's ControlEdge PLC is Certified for Level 2, SASecure™ Embedded Device Security Assurance Program.

- Key components of this system are:
  - The Honeywell Industrial grade panel PC for ATC, Remote, Vault HMI and for Data acquisition.
  - Control Edge PLC, with redundant CPU, for AGL Equipment Integration, Control and monitoring.

- The Honeywell Panel PC Platform provides the flexible, Configurable HMI technology to support all HMI functions required for ATC, Remote and Vault.

- IO module redundancy through Universal IO.

ATC HMI – CONTROLLER WORKING POSITION

- The Lights Manager LS ATC HMI/CWP HMI offers a multitude of functions to efficiently enable time-critical control and monitoring of airfield lighting equipment without information overload.

- Delivered on high-resolution and fast-response touchscreens,
  - with a airfield map and control lighting for approach, runway, taxiway, apron and other special lighting systems.
  - category of operations, airport mode of operations, area of responsibility selections.
  - utilities control page for utility control
  - alarm window for serviceability and alerts/ alarms notifications.
  - maintenance workflow authorization functions.

MAINTENANCE HMI – TECHNICAL WORKING POSITION

- The Lights Manager LS TWP HMI offers comprehensive monitoring of lighting and control systems, helping maintenance personnel receive early warning of technical issues.

- Event database captures a multitude of data like logins, alerts/alarms, electrical parameters of assets, insulation values, switch actions, changes to configuration, operating hours, etc.

- TWP also enables report printing or exporting to enterprise systems, as well as report analysis, and list generation.

- Coordinate closure of areas with ATC for maintenance activities.

- Station/vault HMI or Local Control Unit offers comprehensive monitoring of the lighting and control systems specific to the vault. The workstation also enables control for all the system, down to controlling individual lamps.

Figure: Honeywell ControlEdge Programmable Logic Controller

CONTROL AND MONITORING EQUIPMENT

Honeywell Control edge PLC offers the following features and are configurable as required.

- ISASecure EDSA Level 2 certified cyber security capabilities improved safety of the plant and personnel

- Native controller redundancy

- Optionally redundant power supplies

- I/O racks of various sizes (4, 8 and 12 IO slots options)

- Two variants of power supplies: 58W 24VDC and 110/240VAC

- Hot swappable CPU with redundancy sCPU support

- Universal I/O for greater configuration flexibility & IO redundnacy

- Compatible with leading open network standards such as Modbus and OPC UA

- Built-in EtherNet/IP Protocol with both Server & Client

- Support Serial Communication Module (2×RS232, 2×RS485 ports)

- Powerful IEC 61131-3 programming environment

- Support Removal and Insertion under Power for CPM and I/O modules

- Support Fail safe state configuration on output signal type

- Simulation support on standalone and on Virtual Engineering Platform

- Support FTE network

HONEYWELL PANEL PC OVERVIEW

- 18.5 inch industrial grade touch Panel PC with user interface

- Pre-installed Windows 10 Enterprise, True widescreen resolution (1920x1080)

- CE, UL, Class1 Div 2, IP66, 0-55 °C operations

- Advanced HMI with native operator security design

- HMIWeb Solution Pack library- 300+ display shapes

- Flexible Operation modes: standalone SCADA, remote station, generic thin client and more

- Regular and Runtime licensed packages

Figure: Honeywell Panel PC

PRODUCT CODE ORDERING

LMGR LS- L-890

X   X

MONITORING OPTIONS
A. Control Only
B. Basic Monitoring
C. Advanced Monitoring
D. SMGCS Ready

FAIL-SAFE OPTIONS
A. PRESET
B. LAST STATE

Additional options can be added to standard model:

- CWP & TWP touch or non-touch screens sizes – 15-inch, 19-inch, or 22-inch.

- CCR Control – TCP/IP, Parallel IO etc.

- Circuit/Lamp Control – Circuit Selector Switch or Single Lamp Control & Monitoring

- Ancillary System Monitor & Control – Genset, RVR, WDI, NAVAID Systems, Stopbar Sensors, Beacons, Obstruction lighting, Radio Control etc.

Contact Honeywell Sales to discuss our ALCMS system and receive a full quote that meets the needs of your airport configuration.

For more information
https://buildings.honeywell.com/
us/en/industries/airports

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Hon-Navitas-Lights-Manager-LMGR-BR I 03/22
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THE
FUTURE
IS
WHAT
WE
MAKE IT

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