



ABU DHABI SEWERAGE SERVICES COMPANY (ADSSC)

GENERAL SPECIFICATION FOR ELECTRICAL WORKS

DIVISION 16 ELECTRICAL

SECTION 16110 PILOT DEVICES

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DOCUMENT CONTROL SHEET

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1 GENERAL

- a) All items described within this section shall comply with the provisions of Section 15001: General M&E Requirements.
- b) Pilot devices shall conform to BS EN 60947-5.1. They shall be round in shape, 22mm diameter and be suitable for mounting on a cubicle door.
- c) Pilot devices shall have two main parts: the Operator and the 'snap-on' contact block. The mounting between a cubicle door and the Operator shall be achieved through a 'snap-on' flange.
- d) Pilot devices shall be designed to provide a minimum protection of IP65 when installed in the enclosures. Terminals shall be protected to IP2X.

2 PUSH BUTTONS

- a) Push buttons shall comply with the following unless otherwise specified in the particular requirements:
 - i. Standard design.
 - ii. Mushroom type where specified.
 - iii. Non-illuminated.
 - iv. Anodised Aluminium Bezel.
 - v. 1N/O+1N/C configuration (as a minimum).
 - vi. RED button for STOP function.
 - vii. GREEN button for START function [Recessed type].
 - viii. Mushroom RED for EMERGENCY STOP function.
 - ix. BLACK button for Manual RESET function.
 - x. GREY button for LAMP TEST function.
 - xi. Push buttons for other functions, where applicable, shall be subject to the approval of ADSSC.

3 SELECTOR SWITCHES

- a) Selector switches shall comply with the following unless otherwise specified in the particular requirements:
 - i. Standard design.
 - ii. Lever type cam operated.
 - iii. Twist Release/Push-Pull/Key type where specified and/or approved by ADSSC.
 - iv. Non-illuminated.
 - v. Anodised Aluminium Bezel.
 - vi. Number of positions to suit the required logic.
 - vii. BLACK colour.
 - viii. 1N/O+1N/C configuration (as a minimum).

4 PILOT LIGHTS (INDICATORS)

- a) Indicators shall comply with the following specifications unless specified otherwise in the particular requirements:
- i. Low voltage transformer latch type 110V 50Hz Primary.
 - ii. Bulbs shall be long-life neon types rated at least 10% higher than the rating of the voltage provided.
 - iii. RED colour for RUN/ON indication.
 - iv. GREEN colour for STOP/OFF indication.
 - v. AMBER colour for TRIP/FAULT indications.
 - vi. WHITE colour for SUPPLY AVAILABLE indication.
 - vii. BLUE colour for SUPPLY ON indication.
 - viii. Indicators for other conditions, where applicable, shall be subject to the approval of ADSSC.
 - ix. The pilot light Operator shall be designed to facilitate the simple removal of a bulb from the front of the unit without requiring any tool.
 - x. LEDs are not permitted unless forming a built-in feature of a standalone product/controller to indicate operation status.

5 REMOTE PUSH BUTTON STATIONS

- a) Remote push button stations, where specified, shall comply with the following specifications:
- i. IP66 metal/thermoplastic enclosure for standard applications.
 - ii. IP68 metal/thermoplastic enclosed pilot devices when used in dry well installation (submersible pumps) subject to flooding shall be suitable for the Hazardous Area classification of the dry well. The devices shall be located above the top of the motor cooling valve assembly.
 - iii. Suitable for panel and base mounting. Pilot devices used shall conform to this specification. Their IP rating shall be at least IP65 or that of the enclosure, whichever is greater.

6 ENCLOSED EMERGENCY AND SAFETY SWITCHES

- a) Emergency and safety switches where specified shall confirm to BS EN 60947-3,
- b) Utilization Category AC23 and comply with the following specifications:
- i. IP65 metal/thermoplastic enclosure suitable for installation (e.g. Hazardous Area classified, if needed, etc.).
 - ii. Visible operating handle with marking OFF/ON positions.
 - iii. Lockable in the 'Off' position by use of padlocks.
 - iv. Suitable for base/wall mounting.
 - v. The breaking capacity shall be more than the largest circuit it breaks.

- vi. The emergency switch shall have a red handle on a yellow background.

END OF SECTION