**Field Control Layer Device**

**Inividaul LCD Touch Control Panel**

**[Description]**
DST28U individual LCD touch control panel attached with temperature or humidity sensor is designed to work with any type of AIRTEK DAC/DSC series controller which has MSnet port. It is a two-wire RS485 communication transmission interconnection with the controller. It may facilitate the user by graphically to access, examine, setting, change and confirm each kind of control parameter value from DAC/DSC controller, for example temperature value, humidity value, devices operation status, and alarm messages, enable output points start/stop, changing the temperature and humidity setting values, etc. DST28U has a 2.8 inches TFT LCD touch screen and Simplified / Traditional Chinese / English display subtitles function, four function keys, build in with a 32-bit high performance microprocessor. User can use BACsoft software or HMikit to edit screen pages, even corporate image or promotion leaflet can be loaded to the screen when in non operation mode. This not only enhance the added value of products but also enhance the effectiveness of corporate image advertising.

**[Features]**
- 32 bit microprocessor, high precise operation.
- MODBUS RS-485 RTU communication, can connect to MSnet port of a controller to display information of the controller.
- With 2.8” TFT LCD, 65536 colors, resolution 320 * 240 modules. Edit display pages by using BACsoft software, display color up to 65,536 colors, with Simplified / Traditional Chinese / English operation menu, menu settings can be directly switched
- With simplified / traditional common font, using UTF-8 encoded, the screen can display text in accordance with Simplified and Traditional encoded content
- With + I + II + III four function keys, the system key system parameters can be quickly set up and operate, I, II, III three function keys can be assigned to the specific page for quick operation.
- Can be transmitted via Micro USB interface to update the firmware and upload pictures Information
- With 8M Bytes font library and user data memory space, can save more than 25 base map (the actual amount depends on the amount of data and graphics control devices)
- Read / write controller AI / AO / AV / BI / BO / BV value (Present Value) and priority (Priority Array)
- Connected to DAC series, WC series, GC-DB series controller, if the alarm receiver is the object number of the device, it may display an alert, it can access and view the most recent 80 occurred alarm condition.
- With 10 levels of password protection feature, can set up to 20 passwords to prevent unauthorized personnel mishandling.
- Standard optional embedded sensor, temperature or humidity sensors. With DDC controller, can meet a variety of energy-saving program planning needs

**[Specification]**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sensing Element</th>
<th>Sensing Range</th>
<th>Temp. Tolerance</th>
<th>Humidity Tolerance</th>
<th>Measuring Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>DST28U</td>
<td>10KΩ Thermistor</td>
<td>0~50 °C</td>
<td>±0.25 °C</td>
<td>NA</td>
<td>During 25 °C</td>
</tr>
<tr>
<td>DST28U-H</td>
<td>CMOS Semiconductor wafer</td>
<td>0<del>50 °C, 0</del>100% RH</td>
<td>±0.4 °C</td>
<td>±3%RH</td>
<td>During 20~80% RH</td>
</tr>
</tbody>
</table>

**Power Supply** : 5VDC, 2VA. (May use power sources from DDC MSnet V+, V-)
**Microprocessor** : 32 bit high speed processor with 64K RAM & 384K Flash memory.
**LCD Display** : 2.8” TFT LCD, 65536 colors, resolution 320*240.
**Memory** : With 8M font library and user data memory space.
**MSnet Port** : MODBUS RTU RS-485 bus, communication speed 9,600 bps, max. transmission distance 1200 meters.
**USB Port** : Mini USB interface, update firmware and download scada data.
**Real time clock** : Ultra capacitor power failure back up, support up to 48hours backup for clock after power failure.
**Environment** : 0~50 °C, 20~90%RH non condense.
**Function Key** : With + I + II + III four type of function key. System function key, I, II, III can assign page.
**Buzzer** : For notification and alert usage.
**Accessories** : HMI-LINKER (Mini USB cable). Selectable, not included.
【Installation】
- A single gang electrical box (Box) should be reserved when mounted on the wall, in order to get enough space for the device cable, can be mounted horizontally or vertically.
- With hot-swappable design, PLUG-IN terminals for easy adjustment test.
- Recommended AWG22 four core shielded cable, and EMT pipe configuration in order to achieve better communication results.
- Use computer software to perform BACSoft. Use USB2.0 and Mini USB conversion cable to link MFT28U with Mini USB port (Figure 3) to set the data, update firmware and download the graphic control interface data.
- Installations needed to avoid dust, condensation, and other environmental factors, damage to the product.

【Network Architecture】

【Dimensions】 Unit: mm