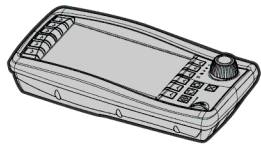




Overview



Description

The Opus A6F and A6S displays are cost-efficient, rugged operator control panels for use on heavy-duty vehicles and work machines that must operate outdoor in harsh conditions. They are fully equipped with an encoder, four hard and twelve soft function keys, integrated buzzer, RS232 and USB ports and two CAN ports. The A6F (full-featured) unit has more memory, four inputs, three digital outputs, Ethernet, and 3 video inputs for use with a camera to monitor process operations.

Features

| Feature | A6S | A6F |
|--|--------|--------|
| Keypad | | |
| Soft keys: | 12 | 12 |
| Hard keys: | 4 | 4 |
| Encoder knob w/detents and pushbutton: | 1 | 1 |
| Touchscreen (PCT): | N | Y |
| Light sensor: | Y | Y |
| Memory | | |
| RAM: | 256 MB | 512 MB |
| Mass storage: | 2 GB | 4 GB |
| Communications Interface | | |
| CAN bus 2.0 B ports per ISO 11898: | 2 | 2 |
| RS232 serial ports: | 1 | 1 |
| USB 2.0 (main connector): | 1 | 1 |
| USB 2.0 (front panel): | N | Y |
| Ethernet 10/100 Mb: | Y | Y |
| I/O | | |
| Analog/digital inputs: | 0 | 4 |
| Digital outputs: | 0 | 3 |
| Video Interface | | |
| Composite CCITT input with 12 V camera supply: | 1 | 3 |

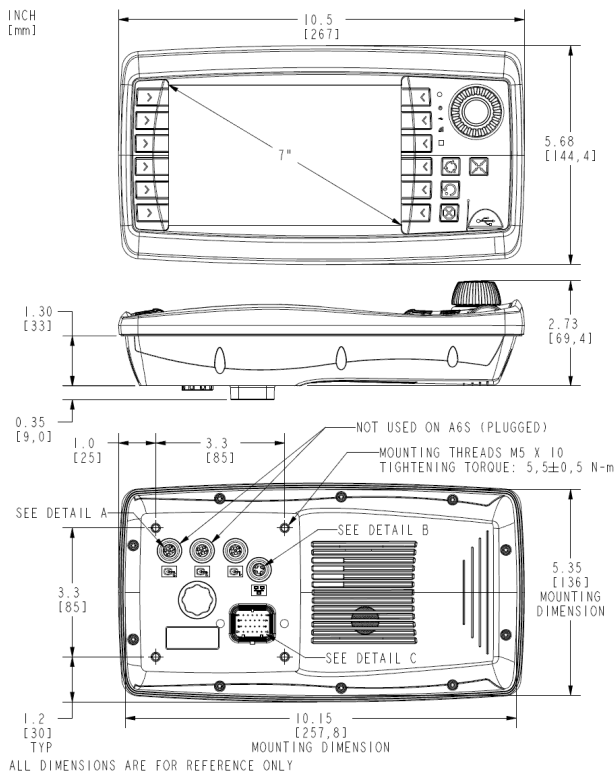


General Specifications

Display

| | |
|--------------------|--|
| Size | 7" diagonal TFT color graphic LCD |
| Dimensions | 67 X 144 X 70 mm (2.64 X 5.67 X 2.76 in) |
| Pixels | 800 X 480 |
| Viewing angle | 50° |
| Mounting | Sandalone, dashboard, or pedestal |
| Power supply | 8 Vdc minimum to 36 Vdc maximum |
| Main connector | AMP super seal 26 pin (TYCO-AMP 1437288-6) |
| Video connector | M12, female B-code |
| Ethernet connector | M12, female D-code |
| Processor | I.MX6 SOLO, 32 BIT, 800MHz |
| Programming | TOPCON Projector- Tool for Windows NT/2000/XP supporting CANopen, Generic driver, CANfreestyle, J1939. |
| Internal clock | RTC buffered for 2 weeks by gold cap, ± 4s/day |
| Ingress protection | IP66 |
| Operating temp | -30 to 65 °C (-22 to 149 °F) |
| Storage temp | -40 to 85 °C (-40 to 185 °F) |
| Vibration | 5 G at 57 to 2000 Hz - Note: 150 hours per axis |
| Shock | 30 G - Note: 11 ms, 10x per axis |

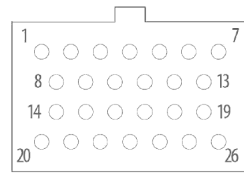
Dimensions and Installation



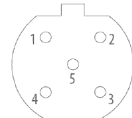


Pinout

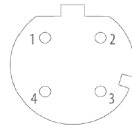
| MAIN CONNECTOR PINOUT | | |
|-----------------------|------------------------|----------------------------------|
| PIN NO. | A6F | A6S |
| 1 | STEADY PLUS | STEADY PLUS |
| 2 | IGNITION PLUS | IGNITION PLUS |
| 3 | BATTERY GRND | BATTERY GRND |
| 4 | CAR GROUND | CAR GROUND |
| 5 | N.C. | -- |
| 6 | N.C. | -- |
| 7 | N.C. | -- |
| 8 | CAN1 HIGH | CAN1 HIGH |
| 9 | CAN1 LOW | CAN1 LOW |
| 10 | CAN2 HIGH | CAN2 HIGH |
| 11 | CAN2 LOW | CAN2 LOW |
| 12 | USB VCC, +5VDC | USB VCC, +5VDC |
| 13 | USB GROUND | USB GROUND |
| 14 | USB DATA - | USB DATA - |
| 15 | USB DATA + | USB DATA + |
| 16 | RS232: RXD | RS232: RXD |
| 17 | RS232: TXD | RS232: TXD |
| 18 | RS232: GND | RS232: GND |
| 19 | ANALOG/DIGITAL INPUT 3 | -- |
| 20 | ANALOG/DIGITAL INPUT 1 | -- |
| 21 | ANALOG/DIGITAL INPUT 2 | -- |
| 22 | ANALOG/DIGITAL INPUT 4 | -- |
| 23 | SERVICE ENABLE | SERVICE ENABLE |
| 24 | DIGITAL OUTPUT 3 | -- |
| 25 | DIGITAL OUTPUT 1 | -- |
| 26 | DIGITAL OUTPUT 2 | -- |
| SEE DETAIL A | VIDEO CONNECTOR (3) | VIDEO CONNECTOR (1) ² |
| 1 | VIDSIG+ | VIDSIG+ |
| 2 | MIRROR | MIRROR |
| 3 | CAMERA+ | CAMERA+ |
| 4 | CAMERA- | CAMERA- |
| 5 | VIDSIG GND | VIDSIG GND |
| SEE DETAIL B | ETHERNET CONNECTOR | ETHERNET CONNECTOR |
| 1 | TD + | |
| 2 | BD + | |
| 3 | TD - | NOT PRESENT |
| 4 | RD - | |



DETAIL C



DETAIL A



DETAIL B

NOTES: 1 - CAR GROUND (PIN #4) MUST BE CONNECTED TO THE CHASSIS OR A CONDUCTOR AS SHORT AS POSSIBLE. EVEN IF THERE IS NO CONDUCTIVE CHASSIS AVAILABLE (E.G. IN E-VEHICLES) THE PIN HAS TO BE CONNECTED TO THE NEGATIVE POLE OF THE BATTERY. OTHERWISE, THERE WILL BE NO PROTECTION AGAINST OVER-VOLTAGE, SHORTCUT OR ELECTRICAL SHOCK/DISCHARGE (ESD!).
2 - UNUSED VIDEO PORTS ARE CAPPED.

To Order

Model A6S (Standard Model): Part No. 4002748

Model A6F (Full-Featured Model): Part No. 4002749

Model A6F (Full-Featured w/CoDeSys): Part No. 4002861

Power Cable: Part No. 4000403

Video Cable: Part No. 4000411

Mounting Kit: Part No. 4000412

Dashboard Mounting Kit: Part No. 4000413

Connector Plug: Part No. 4000415

Socket Contacts: Part No. 4002658 (50 pc)

Cavity Plugs: Part No. 4002659 (50 pc)

Software License Key: Part No. 4100098

Note: Topcon displays can be programmed without a software license in demo mode only. The software (Topcon Toolchain) can be downloaded free from the [HydraForce Electronics Portal](https://www.hydraforce.com/portal) but the software license key must be purchased.