NEW

SERIAL INPUT (RS232/485/USB) REMOTE DISPLAY
FOR HI-REL, MIL-SPEC, NUCLEAR & INDUSTRIAL

MODEL
HI-QREM

5 Digit Red

FEATURES:
- Five Digits 0.6" LED
- RS232, RS485, USB Inputs
- USB Powered
- 5, 12, 24, 48 or 7-32 VDC Powered
- Intensity Control
- Standard 8N1, ASCII
- Aluminum Machined Nickel Plated Case
- Captive Plug-In Screw Terminal Connector
- Lifetime Warranty (LTD)

5 Digit Green

REAR VIEW

ZERO   SPAN

2.80" X 1.310" PANEL CUTOUT
BEZEL: 2.91 X 1.52"

SIDE VIEW

←   1.75   →

1" On Request

DESCRIPTION
OTEK's **HI-QREM** was designed under **D.O.D.** specifications to bring the latest technology to our Armed Forces replacing old obsoleted technology.

The **HI-QREM** (Remote Panel Meter) accepts RS232, RS485 and the new standard **USB** V2 and can even be powered by it with a maximum of "2 Loads" (200mA @ 5VDC).The **HI-QREM** accepts and displays modified alpha characters for messages such as TEST.

DISPLAY INTENSITY can be externally adjusted via a short potentiometer or via serial commands.

LAMP TEST: Just send 6 DP and 8s.

ADDRESSING of the **HI-QREM** is up to 255 units. The **HOUSING** is made out of machined aluminum nickel plated (or Mil-Spec painted) and the connector is screw type "Captive" for high shock and vibration environments. A gasket is supplied for **NEMA 4X** compatibility. An optional EMI/RFI filter is available. **Sanitary & Explosion Proof** cases can be pipe, panel, wall or conduit mounted.

Mil-Std. 461, 901, 810, 167 and others are available upon request.

POWER INPUT can be 5, 7-32 or 48 VDC or **USB** powered consuming a maximum of 1 Watt (less with lower intensity for dark environments).
Simple industry standard ASCII characters are accepted as well as mnemonic commands (ie. SNNNMMMMM. Settings are "8N1" with baud rates from 300 to 19,200.

SPECIFICATIONS (Industrial)
(at 25^0C & 5VDC)
- Digits: 5 ea. 0.6" High with 5 D.P.
- Power Consumption: 1 Watt @ 5 VDC
- Isolation For Power Input: 500VDC
- Baud Rate: 300 to 19,200 (9600 Default)
- Characters: ASCII Codes 0-9 & Modified Alpha & DP
- Hardware Handshake: None Required
- Operating Temp: 0-60^0C, NEMA 4X
- Storage Temp: $-20 + 80^0$C
- Humidity: 5-95% RH, Non-Condensing
- Sanitary Case: To 250^0F Steam Cleaning
- Explosion Proof For CLASS I, Div. 1 & 2 Certified
- Calculated MTBF: >100,000 Hours (12+ Years)
- Warranty: Lifetime (LTD)

Note 1: Above specifications are for Industrial Grade. Contact OTEK for other grades.
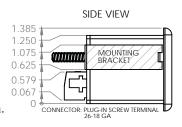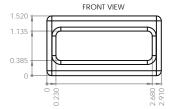
HI-QREM MECHANICAL INFORMATION

TERMINAL DESCRIPTION:

1. +Power supply input for isolated 5, 12, 24, 7-32 or 48VDC options.
2. Return for isolated power supply inputs.
3. +5VDC power input for non-isolated options or +5VDC output for isolated power conditions.
4. Intensity Control, connect to terminal 3 for normal operation.
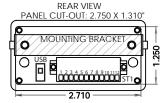5. Default Pin, connect to terminal 8 to force default mode.
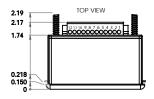6. RS485 "B"/RS232 TXD
7. RS485 "A"/RS232 RXD
8. RS485/RS232 Ground
9. USB +5V
10. USB GND
11. USB Data -
12. USB Data +

USB Is Optional

SIDE VIEW
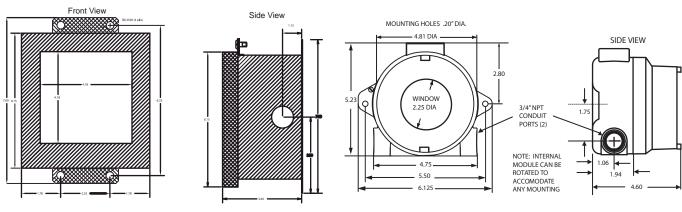
1.385
1.250
1.075
0.625
0.579
0.067
0

MOUNTING BRACKET

CONNECTOR: PLUG-IN SCREW TERMINAL 26-18 GA

FRONT VIEW

1.520
1.135
0.385
0

0
0.230
2.680
2.910

REAR VIEW
PANEL CUT-OUT: 2.750 X 1.310"

MOUNTING BRACKET

USB
1 2 3 4 5 6 7 8 9 10 11 12
ST1

1.250

2.710

TOP VIEW

2.19
2.17
1.74

12 11 10 9 8 7 6 5 4 3 2 1

0.218
0.150
0

SANITARY CASE

Front View

Side View

1.15

7.00 6.15

4.18

4.18

6.25

6.15

1.78   2.25   1.78

3.65

EXPLOSION PROOF

MOUNTING HOLES .20" DIA.

4.81 DIA

2.80

5.23

WINDOW 2.25 DIA

4.75
5.50
6.125

3/4" NPT CONDUIT PORTS (2)

NOTE: INTERNAL MODULE CAN BE ROTATED TO ACCOMODATE ANY MOUNTING
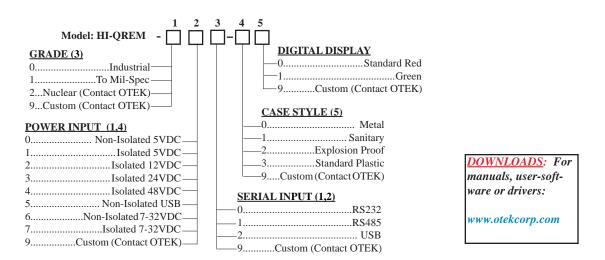
SIDE VIEW

1.75

1.06
1.94
4.60

NOTE: For RS485 Install 120Ω Across Pins 6 & 7.

HI-QREM ORDERING INFORMATION 2-28-13

NOTE: Please READ BEFORE building part number:

1. For USB powered models (digit 2, option 5), serial input must be USB (digit 3, option 2), but not conversely.
2. See notes at bottom of page.

Model: HI-QREM - ☐ ☐ ☐ – ☐ ☐
  1 2 3 4 5

GRADE (3)
0............................Industrial
1........................To Mil-Spec
2...Nuclear (Contact OTEK)
9...Custom (Contact OTEK)

POWER INPUT (1,4)
0...................... Non-Isolated 5VDC
1.............................Isolated 5VDC
2...........................Isolated 12VDC
3...........................Isolated 24VDC
4...........................Isolated 48VDC
5........................ Non-Isolated USB
6..................Non-Isolated 7-32VDC
7.........................Isolated 7-32VDC
9................Custom (Contact OTEK)

DIGITAL DISPLAY
0..............................Standard Red
1...Green
9............Custom (Contact OTEK)

CASE STYLE (5)
0................................ Metal
1.............................. Sanitary
2..................Explosion Proof
3..................Standard Plastic
9.....Custom (Contact OTEK)

SERIAL INPUT (1,2)
0..RS232
1..RS485
2.. USB
9............Custom (Contact OTEK)

NOTES:

3. Otek will build to certain MIL-standards but testing and confirmation of compliance, if required, will need to be done by a third party and at customer's expense. Mil-Std. only available with metal case (Digit 4, Option 0).
4. The **HI-QREM USB** termination is at the screw terminal connector.
5. A maximum of 3 units can fit inside the sanitary case. If ordering more then 1 unit per case, specify option 9 on digit 4 and describe.