

Low Cost Smart Bargraph-Digital Meters

For V/mADC Input And/Or RS-232C/485, Remote Displays

**MODEL
HI-QSLIM**

HI-QSLIM1



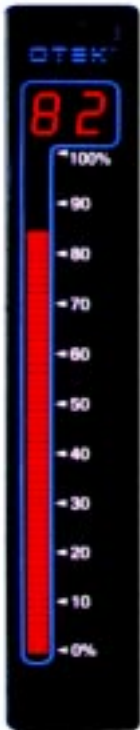
8 DIGITS
7 SEGMENTS

Zero & Span Adjustments Behind Overlay Not Shown

HI-QSLIM3 Horizontal Version
(Center Zero Available)



HI-QSLIM2



DESCRIPTION:

O TEK's new **HI-QSLIM** series of Low Cost Smart Indicators complement the extensive and proven HI-Q line of **Intelligent Programmable Controllers**. We have applied our expertise to bring you the industry's first low cost bargraph, without sacrificing the quality and reputation of our HI-Q line.

The HI-QSLIM1 offers eight (8) digits, seven-segment 0.6" display with limited alpha characters and 0-9 numerals plus decimal points. **The HI-QSLIM2** has 51 segments (2% resolution & 2 digits(1%)).

The HI-QSLIM3 gives you 1% resolution with its 101 segment high intensity bargraph & 2 digit displays.

Whichever you choose for your application, you can depend on its quality and OTEK's limited lifetime warranty.

FEATURES:

- RS-232C or RS-485 I/O
- ASCII Characters
- Stackable in 1 Inch Centers
- Vertical or Horizontal Viewing
- Zero & Span Front Panel Controls
- Only 2" Deep NEMA4 Housing 6x1x2"
- 5VDC, Isolated 10-32VDC or 90-265VAC Power Input
- Standard Unicolor Red or Custom Multicolor (R,G,Y)
- Free Custom Software for Minimum Purchases
- Compatible with Any RS-232/422/485 ASCII System
- Polycarbonate Overlay

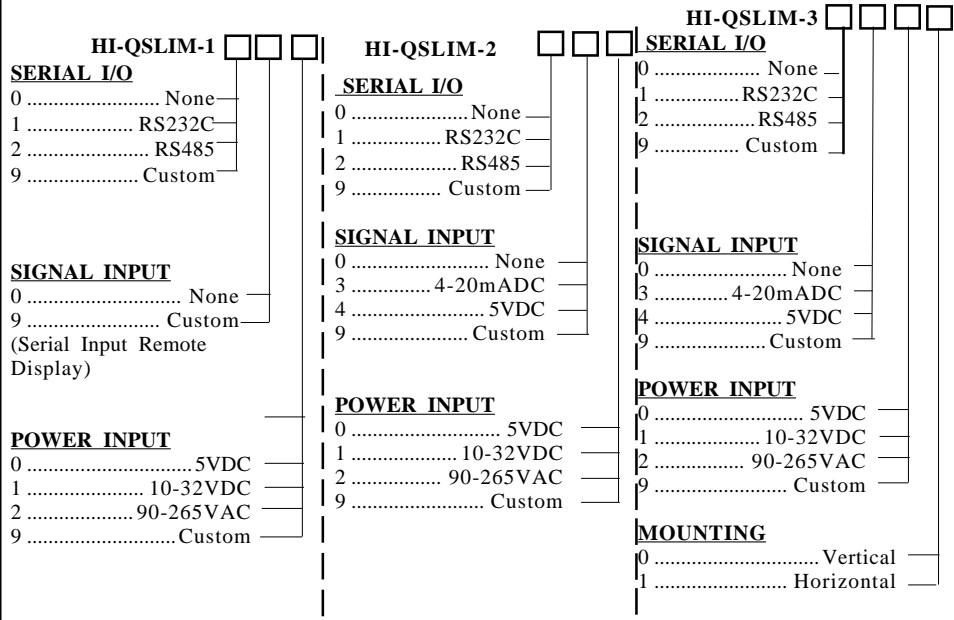
HI-QSLIM3



APPLICATIONS: (See Note 2)

- Remote Display for RS-232/485
- Process Meter (4-20mA/0-5VDC)
- Trend Indicator
- Counter
- Timer
- Inclinometer Indicator
- Well Depth
- Distance
- Position
- Altitude
- Temperature
- Pressure
- Flow
- Humidity
- pH
- RPM
- Strokes Per Hour/Per Minute

ORDERING INFORMATION (10-02-07)



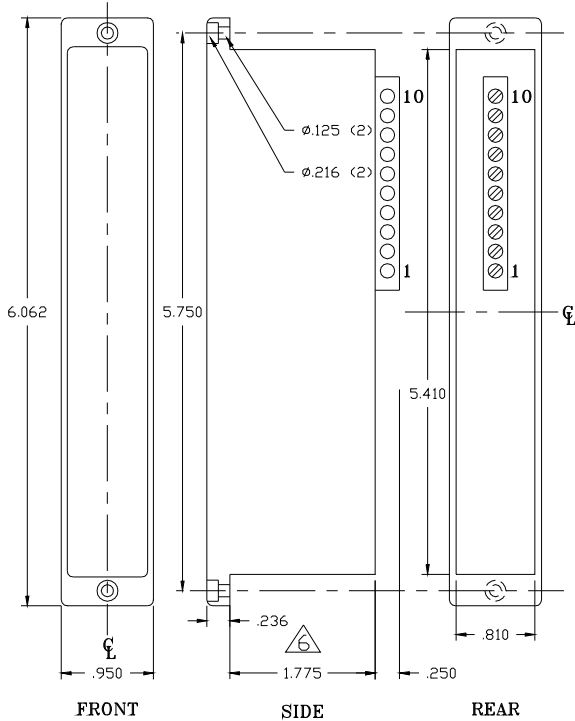
60% of ACTUAL SIZE

2 DIGITS &
51 SEGMENTS

60% of ACTUAL SIZE

2 DIGITS &
101 SEGMENTS

MECHANICAL INFORMATION



- NOTES:
 1. RECOMMENDED PANEL CUTOUT: 0.840 x 5.452
 2. MOUNTING HOLES (2) FOR #4 CLEARANCE
 3. WIRE SIZE ACCEPTED > 24 < 16 GA.
 4. ALL DIM ±0.010"
 5. FOR STACKED APPLICATIONS MAKE MOUNTING HOLES ON 0.960" CENTERS.
 6. UNITS W/O POWER SUPPLY ARE ONLY 1.00" DEEP

F# 87SLIMME

TYPICAL CONNECTIONS (All Models)

- Notes: 1. Refer to your specific model# before making connections
 2. Always apply power before signal
 3. 5VDC ±5% (0.25V) at connector
 4. Notice terminal orientation before connecting

Terminal #	Description	Notes
10	Dig. Gnd.	RS-232C & Digital Signal Ground
9	Int 0	Do Not Connect Reserved for Custom
8	T 0	Default Control
7	RXD/DO	Receive Data (RS-232C/485)
6	TXD/DO	Transmit Data (RS-232C/485)
5	Hi Pulse In	+Digital Signal Input or Contact
4	+Signal In	+Analog Signal Input
3	-Signal In or Low Pulse In	Internal Instrument Ground for Analog Inputs
2	+Power In	+For VDC or AC High Input
1	-Power In	Gnd. for VDC or AC Low Power In

SPECIFICATIONS

PARAMETER	HI-QSLIM-1	HI-QSLIM-2	HI-QSLIM-3
# Segments	None	51	101
# Digits	Eight (8)	Two (2)	Two (2)
Analog Input Accuracy		±1%	±0.1%
Analog Input Resolution		1% (1 in 100)	±1% (1 in 100)
Polarity		Unipolar	Unipolar
Zero & Span		Yes	Yes
Input Impedance mA/VDC		200Ω/100KΩ	200Ω/100KΩ
Digital Input		TTL/CMOS	TTL/CMOS
Multilevel Inputs		Dry Contact to 250V	Dry Contact to 250V
Frequency Response TTL		10K Hz	10KHz
Serial I/O	RS-232C/RS485	RS-232C/RS485	RS-232C/RS485
Characters	ASCII	ASCII	ASCII
Baud Rate	9600 Std.	9600 Std.	9600 Std.
Address Selection	Via Serial Port	Via Serial Port	Via Serial Port
Power Req't @5VDC	2W	2W	2W
Power Input Non-isolated	5VDC±5%	5VDC±5%	5VDC±5%
Power Input Isolated	10-32VDC (or 24VAC)	10-32VDC(or 24VAC)	10-32VDC (or 24VAC)
Power Input Isolated	90-265VAC	90-265VAC	90-265VAC
Operating Temperature	0-60°C	0-60°C	0-60°C
Storage Temperature	-20 to 70°C	-20 to 70°C	-20 to 70°C
Humidity	5-95% N.C.	5-95% N.C.	5-95% N.C.
MTBF (Calculated)	100,000Hrs	100,000Hrs	100,000Hrs
Front Panel	NEMA 4	NEMA 4	NEMA 4
Weight	3 oz. (84g.)	3 oz. (84g.)	3 oz. (84g.)

* Specifications Subject to Change Without Notice! Contact OTEK for Your Custom Needs!!

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Serial Communications Protocol for the HIQ-SLIM 1 Remote Display

I. INTRODUCTION

The SLIM 1 uses the standard OTEK communication protocol. The starting character is S followed by the address. The default address is 01. The command follows and must be terminated by a carriage return <CR>. This document applies to firmware release SL1_R100.

II. COMMANDS

COMMAND	DESCRIPTION	RANGE	EXAMPLE
ADDRn	Changes the address. Default is 01.	n = 0 to 6 ASCII characters.	S01ADDRRTANK1<CR>
BAUDnn	Changes the baud rate. Default is 9600.	nn = 12 ⇒ 1200 baud. nn = 24 ⇒ 2400. nn = 48 ⇒ 4800. nn = 96 ⇒ 9600.	S01BAUD2400<CR>
CONFn	Change the SLIM configuration. Default is 4.	n = (return). Returns current config. 0 = no echo of serial input. 4 = echo serial inputs.	S01CONF<CR> Shows current configuration.
Dnnnnnnn	Displays ASCII characters on 7 segment display.	nnnnnnnn= ASCII chars.	S01DHELLO ED<CR> display shows HELLO ED
FLASHn	Flashes display	n = 0 to 1 no flashing. n = 2 to 3 slowest (1.14 S). n = 4 to 5 slow. n = 6 to 7 medium. n = 8 to 9 fastest (142 mS).	S01FLASH0<CR> S01FLASH3<CR>
INTn	Change display Intensity. There are four levels. Default is 9.	n = 0 off. n = 1 to 3 dim. n = 4 to 6 medium. n = 7 to 9 brightest.	S01INT0<CR> display off S01INT9<CR> display max
PTn	Light decimal point position. Default is 0.	n = 0 no decimals on. n = 1 to 8, numbered from left of the display.	S01PT1<CR> 1st decimal point on.
RST	Resets SLIM to user values held in EEPROM.	N/A	S01RST<CR>
WRITE	Saves configuration data to EEPROM. Data saved includes: ADDR, BAUD, CONF,FLASH and INT	N/A	S01WRITE<CR>

Serial Communications Protocol for the HIQ-SLIM 1 Remote Display

III. DISPLAYED ASCII COMMAND SET

This table shows the decimal ASCII number, the character for that number and the character as displayed on the SLIM 1 remote display. Sending ASCII 8 (BS - destructive backspace) will erase the previous character sent to the SLIM 1 input buffer. Sending ASCII 27 (ESC) will clear the SLIM 1 input buffer.

<u>Decimal</u>	<u>Char.</u>	<u>Display</u>	<u>Decimal</u>	<u>Char.</u>	<u>Display</u>	<u>Decimal</u>	<u>Char.</u>	<u>Display</u>
45	-	-	61	=	=	76	L	L
46	.	.	62	>	_	77	M	_
47	/	_	63	?	_	78	N	n
48	0	0	64	'	_	79	O	o
49	1	1	65	A	A	80	P	P
50	2	2	66	B	b	81	Q	_
51	3	3	67	C	c	82	R	r
52	4	4	68	D	d	83	S	S
53	5	5	69	E	E	84	T	t
54	6	6	70	F	F	85	U	U
55	7	7	71	G	g	86	V	_
56	8	8	72	H	h	87	W	_
57	9	9	73	I	i	88	X	_
58	:	_	74	J	J	89	Y	Y
59	;	_	75	K	_	90	Z	_
60	<	_						