



EziLine Correlation System Specification



Correlation System

Features

- ✓ Complete system for API correlation logs and igniting electric detonators
- ✓ Portable or permanent mount
- ✓ Complies with API RP67 Standard
- ✓ Can be used with all logging systems
- ✓ Connects to standard PC via USB port
- ✓ Includes Ezquire data logging software
- ✓ Send to Printrex continuous printer, A4, Bitmap and PDF
- ✓ Perforating Panel complete with off-the-shelf EFI and EBW firing tools



Description

Depending on requirements, the system will be supplied as follows:



- 1) *Perforating Panel* – provides power required for detonating electrical igniters, also provides wire routing and shooting CCL detection
- 2) *Safety Panel* – combines a Wellhead Potential Monitor, Single Conductor Safety Key and a TalkBack intercom system in a single panel
- 3) *Shooting GR/CCL Panel* – supplies power suitable for most shooting Gamma Ray tools, separates and processes Gamma Ray pulses and Casing Collar Locator signal
- 4) *Interface Panel* – designed to interface analogue signals from surface and downhole sensors with a standard PC, designed for use in conjunction with Ezquire Correlation Software
- 5) *Printrex Printer*
- 6) *Transit Case Kit*
- 7) *Safety Key Assembly* – as per client specification



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Details

1) Perforating panel

General:

- Mains supply 115 and 230 VAC (+/- 10%) / 40 to 70 Hz (automatic switching using Eztek autovolt circuit)
- 3 "U" high 19 " rack mountable panel enclosure (360mm deep)
- Wireline IN / OUT via Lemo Connectors

Wireline routing:

- Routing for single conductor Wireline
- "Secondary" Safety switch with double contacts and removable key (safe position only)
- 3 pos. Selector switch – Log/Active GR CCL/Perforate
- 3 pos. Selector switch – Correlate/Positive/Negative
- "Active GR/CCL" position – routes Wireline to the Shooting GR/CCL interface panel
- "Log" position – routes Wireline to logging system for other logging operations

Perforating supply:

- 0 to 300 VDC output, positive and negative (unregulated)
- 0 to 3 Amps
- "Secondary" Safety switch with double contacts and removable key (safe position only)
- Analogue voltage and current meters
- Four control action for firing of which two switches are momentary and limit switch on variac to comply with RP67
- 1 / 3 Amp Current Range Switch
- Internal Ripple Filter – smoothing capacitors and automatic capacitor discharge on power down

CCL detection circuit:

- Double sided rectification of CCL signal for improved presentation of true CCL signal
- Buffered line output for presentation of unprocessed line signal
- Gain adjustment accessible from front of panel

2) Safety panel

General:

- Wide range Mains input (100 to 250 VAC / 47 to 65 Hz)
- 2"U" high 19" rack mountable panel enclosure

Wellhead Potential Monitor:

- Back lit L.C.D. display, continuously displaying potential between well head and truck chassis and cable resistance
- Audible alarm pre-set for 0.25 Volts and 50 Ohms

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- 50 metres cable with single “G” clamp for connection to well head for WHP.
- 50 metres cable with double “G” clamp for connection to well head for Grounding the truck.
- Zener Barrier for WPM

Mono-conductor Safety Key:

- Key switch with “SAFE” - “OPERATE” position; key removable in “SAFE” position only
- Wireline IN / OUT via Lemo Connectors

TalkBack 2 Way Intercom System

- Push to Talk button
- Independent local and remote volume controls
- Remote loudspeaker/microphone
- 50 meters braided 2 core cable
- Mains supply 115 and 230 VAC (+/- 10%) / 40 to 70 Hz (automatic switching using Eztek autovolt circuit)
- Diecast TalkBack Master Station Enclosure

3) Shooting GR/CCL supply and interface panel:

General

- Mains supply 115 and 230 VAC (+/- 10%) / 40 to 70 Hz (automatic switching using Eztek autovolt circuit)
- 2 “U” high 19” rack mountable panel enclosure
- Supply for shooting GR/CCL with maximum CHV of 140 VDC and 100 mA (this covers all shooting GR/CCL tools that we know).
- Sophisticated GR pulse detection (positive and negative) and CCL signal processing, providing TTL level processed pulses and DC-CCL signal.
- Voltage and current output for display and recording on any logging system (0 to 7.5 Volts for 0 to 150 Volts surface voltage and 0 to 10 Volts for 0 to 100 mA tool current).
- Panel meters for surface voltage and tool current
- Oscilloscope output for verification of line signal, pulse picking, etc.
- No current isolation circuitry and momentary override switch

4) Interface Panel:

General

- Wide range Mains input (100 to 250 VAC / 47 to 65 Hz)
- 2 “U” high 19” rack mountable panel enclosure
- Connects to notebook PC via USB connection
- CCL output from Perf. Panel and GR/CCL output from EZ5507A connect directly to this panel.
- Auxiliary input for two 4 to 20 mA sensors (e.g. two pressure transmitters for connecting to hydraulic load cell and wellhead)
- **Remote depth and speed display c/w 100 metres of cable on drum**
- **100 ppr Hohner depth encoder c/w 100 metres of cable on drum**
- Windows software comes free with the system. Ezquire Software c/w API Header and Log printing.



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5) Printrex 842DL/G-QF:

- 19" Rackmount Printrex Printer
- 4"/sec printing speed
- USB Interface

6) Transit Case Kit:

- 2 of 6U Transit cases c/w front and rear covers
- Set of interconnecting cables between panels
- Mains distribution included
- USB Hub

7) Safety Key Assembly (Single Conductor)

- Die cast enclosure
- Safety key with 2 way selection
- 2 x 20 mm gland holes
- Screw terminal connection
- 2-4 mm patch sockets (red for conductor, black for armour).
- Conformity with API-RP 67 Oilfield Explosives Safety