EziLine Correlation System Specification

EZiLine
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

Details

1) Perforating panel

General:
- o Mains supply 115 and 230 VAC (+/- 10%) / 40 to 70 Hz (automatic switching using Eztek autovolt circuit)
- o 3 "U" high 19 " rack mountable panel enclosure (360mm deep)
- o 4mm Patch connections for (single conductor) cable and CCL checking from the front of the panel
- o Bypass (Logging System) position for other logging operations
- o Wireline IN / OUT via Lemo Connectors

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

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

2) Safety panel

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

Wellhead Potential Monitor:
- o Back lit L.C.D. display, continuously displaying potential between well head and truck chassis and cable resistance
- o Audible alarm pre-set for 0.25 Volts and 50 Ohms
- o **50 metres cable with single "G" clamp for connection to well head for WHP.**
- o **50 metres cable with double "G" clamp for connection to well head for Grounding the truck.**
- o Zener Barrier for WPM

Mono-conductor Safety Key:
- o Key switch with "SAFE" - "OPERATE" position; key removable in "SAFE" position only
- o Wireline IN / OUT via Lemo Connectors

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

3) Shooting GR/CCL supply and interface panel:

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

4) Interface Panel:

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

5) Printrex 842DL/G-QF:

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

6) Transit Case Kit:

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

7) Safety Key Assembly (Single Conductor)

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