32 CHANNEL INTERFACE
FOR ALARM & STATUS SWITCHES
VDR INTERFACING
KW932-C

DESIGNED FOR interfacing a VDR to....
- Fire alarms
- Fire doors, watertight doors
- On/off status switches
- Engine controls, telegraph, status, alarms...

Typically these systems have a switch, an indicator panel, and a junction box where an on/off voltage may be intercepted. Express permission should be given by the master before connecting to any ship's safety system.

The interface does not provide the door's switches or the wiring to any alarm panel. The interface does not care what it connects to. All it needs is a voltage to be on or off, high or low, (or contacts to open and close), and it reports as a "0" or a "1". The interfaces may be installed close to the switch junction boxes. AMI believe numerous interfaces, near the sources being monitored, are preferable to the running of many long cables to a central interface in the VDR.

The interface outputs the standard $IIXDR NMEA 0183 or IEC 61162 sentence for a switch transducer. Interfaces may be connected in series using a 4-pair cable so that all data finally appears at the VDR on one data channel. It is a daisy-chain rather than an octopus. VDRs will record the XDR message, which is just what is necessary to provide information in the event of an incident.

SPECIFICATION

INPUT:
8 groups of 4 opto isolated channels. Each group of 4 has its own common line.
Voltage input high level 2 to 240 volts DC or AC. Input loading 4 to 10 mA.
Voltage input must go to near zero (<5%) in the low state for reliable switching.
Can supply its own 24v output for use with isolated contacts such a micro-switches
Series resistors are fitted to each input at installation time to suit the voltage.

OUTPUT:
NMEA 0183 and IEC 61162
$IIXDR for 1 to 8 sentences corresponding to the 8 groups of 4 inputs or
Proprietary compact sentence example $PAMI,XDR,A,0101,0000,0000,1010,*HH cr lf
32 selectable identifiers to allow for multiple interfaces. (Interface "A" in example above)
Dip-switch selectable for the number of groups in the data output.
Sampling rate 1 second. Output rate 10 seconds & 1 second when input changes.

FEATURES:
LEDS on all inputs and outputs.
Bypass switch to allow an interface's data to be isolated from the chain.

POWER:
Nominal 24v at 0.04 Amps. (18 to 32 volts)

ENCLOSURE:
275 x 175 x 65 mm aluminium enclosure. Duck egg blue/grey. 11 glands for 7mm cable.

CHANGES FROM PREVIOUS VERSIONS OF 32 CHANNEL INTERFACE:
- 8 groups of 4. This is the practical number to provide within the diecast box.
- Channel input voltage increased up to 240v. Input resistors are fitted at installation time.
- Data pass-through facility allows interfaces to be daisy-chained.
- Slightly bigger enclosure, but same style.
- 3.81 mm 5 way green plug-in connectors for channel inputs. HE14 8 way IDC interconnection.
- Fit 0 ohm links to allow for voltage input or isolated contact closure.

DATASHEET REVISION: 15/03/2005 By Andrew Fairgrieve