



OCS - 7000 INDUCTIVE SERIES

The RS contactless joystick employs an inductive sensing system and is recommended for applications where extreme length of service life and a "Fail to Safe" system is required. The joystick is calibrated to give a voltage output swing of + and - 40% of the supply voltage. In addition to the conventional outputs the joystick is also equipped with dual decode technology, which provides two extra features :-

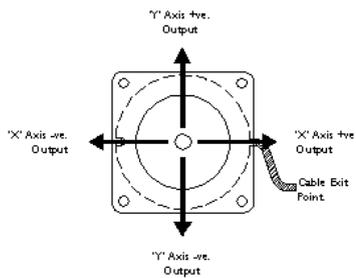
- 1) Fault detect. Additional internal circuitry continually checks the operation of the joystick.
- 2) Centre detect. Further circuitry detects whether the lever is at, or away from, centre.

Both of these features are combined onto one single output, which rests at 0V while the joystick is at centre, and switches to +Vs when the lever is off centred. In the unlikely event the joystick detects an internal fault, the output will return to 0V, regardless of the position of the lever. This output may then be used within the control system to induce a "Fail to Safe" state.

A square limiter plate is supplied fitted to the joystick body to control the throw of the stick, this limiter plate has a choice of 2 orientations: square to the body or at 45° to the body. An alternative round limiter plate is supplied together with a mounting bezel. These may be fitted to suit the application. Limiter replacement requires removal of joystick knob by upward pull - remove protective gaiter - prise out limiter plate. The refit is reverse of removal.

NOTE. - Extreme care must be used to prevent ingress of dirt or dust while the gaiter is removed. Joystick may be mounted sub-panel, or as 'Drop-In'.

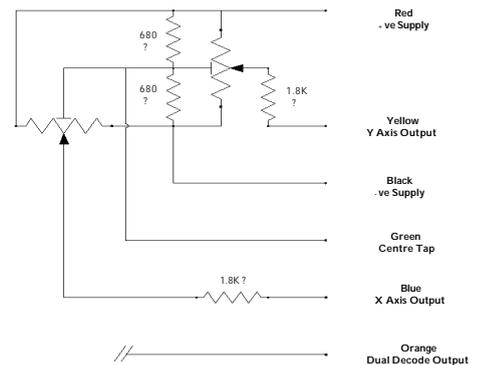
ORIENTATION



ELECTRONIC SPECIFICATION

Supply voltage (Vs)	4.75V min - 15V max
Signal swing (from centre)	+/- 40% Vs
Output signal tolerance	+/- 10% of specified output
Output impedance	1.8k? +/- 1%
Signal ripple	<1% of output
Supply current	Typically 10 mA
Operating temperature	-20°C - +55°C
ESD Immunity	> 12kV - (correctly installed)
RFI rejection - (Base specification)	> 20V/m - (Bare joystick)
RFI rejection - (typical)	> 40V/m - (Installed)
Preferred load	>10K

EQUIVALENT CIRCUIT



MECHANICAL SPECIFICATION

Body	Glass re-reinforced ABS
Shaft - Material	A303 Stainless steel
Shaft diameter	5mm nominal
Washer plate	Brass
Gimbal pivot	Acetal
Centering cone	Acetal
Spring	Stainless steel
Pivot pins	Hardened steel
Limiter plate	Glass re-reinforced Nylon
Bezels	Glass re-reinforced Nylon
Gaiter (Boot)	Vinyl
Knob	Nylon
Operating lever deflection	*/- 18° (@ N/E/S/W points)
Output leads insulation	Soft PVC
Output leads	14/0076 tinned copper
Max load to Shaft - Horizontal	30Kg typical
Max load to Shaft - Vertical	75Kg typical
Environmental	IP 65 above panel (installed)
Weight	70g typical
Service life.	10,000,000 cycles typical

DIMENSIONS

