



Uniselectors type 4150 and 4160

The STC Unislector was designed to fulfil the requirement for a selector with high reliability and long life. It is approved and extensively used by the British Post Office and is equivalent to the P.O. Nos. 2 (HD) and 3 (LD) Unislector. Dependent on the density of abrasive matter in the atmosphere, the life expectancy for the light duty Unislector is 500,000 complete revolutions and for the heavy duty Unislector it is 2,000,000 complete revolutions. During this period the wipers may need replacement.

The Unislector is designed basically to operate with a standard bank of 25 contacts, although with the addition of levels containing homing arcs and contacts it becomes very versatile, finding application for many special purposes in control circuits, special systems, batch counters and telecommunications generally.

As detailed in Table 1 opposite, the Unislector is available with 3, 4, 5, 6, 8, 10 or 12 levels. All types can be supplied with double ended wipers, giving two appearances of 25 points per revolution. Selector levels 4, 6, 8 and 10 can also be supplied with single ended wipers, connected in adjacent pairs which provide 2, 3, 4 or 5 complete circuits of 50 points per revolution. Each level comprises either 25 nickel silver contacts, or a contact and homing arc. Contacts have a static current rating of 0.5A and 50V d.c.

The wipers can be of either the bridging or non-bridging type. The non-bridging wiper steps from contact to contact with a disconnection period between, while the bridging type steps smoothly from contact to contact without discontinuity. Adjustment of wiper tips can be carried out accurately on the bank contacts without disturbing the setting of the driving mechanism since their tips are flared allowing rotation of the number wheel by hand. Electrical connection to the wiper is effected by brushes which bear on the sides of the collector rings, thus presenting the minimum dust collecting surface.

Wiper material is nickel silver, allowing total electrical resistance between brushes and bank contacts, through the wipers, to be less than 1Ω at 50 mA.

Two methods of operation are possible with the STC Unislector—self interruption, or impulse drive. In the case of the former, interaction between the armature and interrupter contacts enables automatic stepping to take place at an average speed of 68 steps per second for a Unislector fitted with up to five wipers, or 60 steps per second where more than five wipers are used. Maximum running speed in this mode is 100 r.p.m. or 5,000 points per minute.

The Unislector will operate satisfactorily within voltage limits $\pm 20\%$ of nominal (see Table 2). The speed of operation varies with variations in voltage within $\pm 25\%$ of average speed. Minimum recommended free running speeds are 60 r.p.m. for three to five levels, and 50 r.p.m. for six to ten levels. It is recommended that a spark quenching circuit be used on interrupter spring sets when the Unislector is used in the self-interruption mode.

When operated in the impulse drive mode, the Unislector may be made to step as slowly as is required by means of injected d.c. pulses. Maximum speed is, however, limited to 80 r.p.m. Impulses having minimum make and break periods of 20 mS and 10 mS respectively are suitable for impulse driving. If required, interrupter springs may be used to drive an external circuit.

All Uniselectors are finished for use in tropical or temperate climates, while SASCO can offer a gold or rhodium plating or palladium flashing service on request.

STC Uniselectors and ordering information

These Uniselectors are coded on either a 6 or 13 digit basis according to the type required. In the case of 6 digit codes the 5th character (represented in Table 1 by a + sign) represents the coil voltage shown in Table 2. The type of bank required should be stated in each case.

