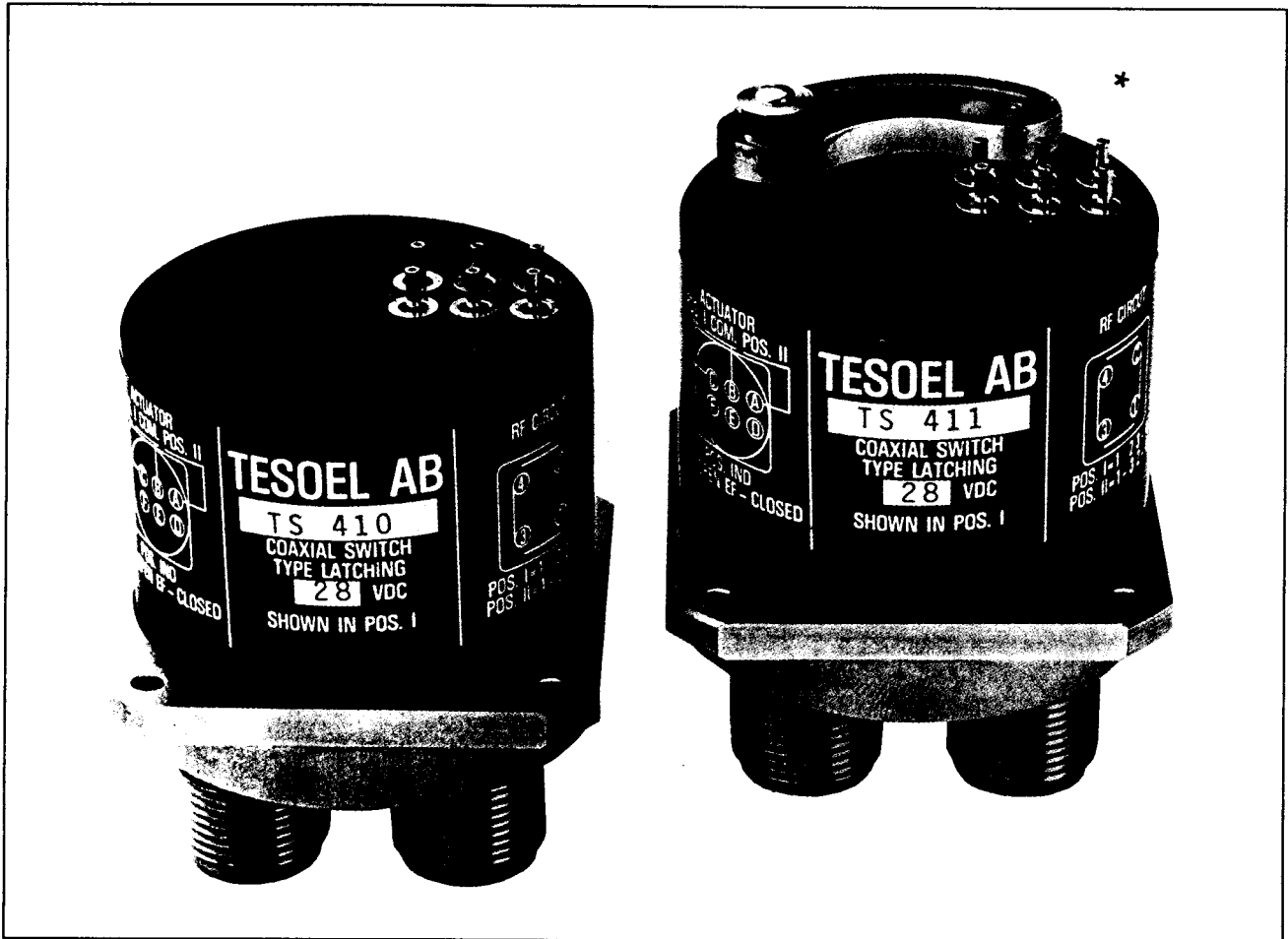


Model TS 410-00

N-Connector

Transfer-Latching



The new **Tesoel** electromechanical coaxial switch is designed for applications relating to telecommunication, instrumentation, test equipment etc. The switch design team has more than 20 years' experience in developing and manufacturing high quality coaxial and waveguide mechanical switches for RF and Microwave systems.

The **Tesoel** coaxial switch TS 410 is a transfer type, a simple way of switching a 2-port device in or out a transmission line.

\*OPTION: Override manual. Each RF-position can be selected either electrically or manually.

The actuator comprises a magnetic mechanism which requires no holding current (latching). The switch circuit is "break before make". A set of internally mounted DC contacts are used for position indication. The standard actuator voltage is 28 volts. Upon request the switch can be supplied for other voltages.

Customer specified mechanical switches can be made. You are welcome with specific requirements for your coaxial switches.

Model TS 410-00 • Transfer • Latching • DC-12,4 GHz • Type N

**ELECTRICAL**

Frequency (GHz)	DC-1	1-3	3-8	8-12,4
VSWR (Max)	1,1	1,2	1,35	1,5
Insertion Loss (Max dB)	0,1	0,2	0,3	0,5
Isolation (Min dB)	80	80	70	60
Average Power W (20° C)	400	250	175	125
High Power Option: +50% higher average power				

**IMPEDANCE:** 50 Ohm

**RF-CIRCUIT:** Break-Before-Make

**SWITCH MODE:** Transfer, latching, self cut-out

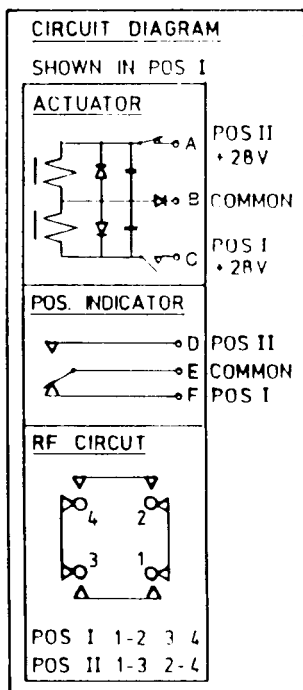
**CONNECTORS:** Type N female

**ACTUATING VOLTAGE:** 28 V ± 5 VDC

**ACTUATING CURRENT:** 600 mA at 28 V, + 20° C)

**SWITCHING TIME:** 35 ms

**POSITION INDICATOR:** 60 V/350 mA, max.,  
4 V/10 mA, min.



**MECHANICAL**

**RF-CONNECTORS:** Stainless Steel, goldplated  
Beryllium-Copper

**RF-CIRCUIT:** Aluminium, nickelplated and  
goldplated contacts

**COVER:** Aluminium, black anodized

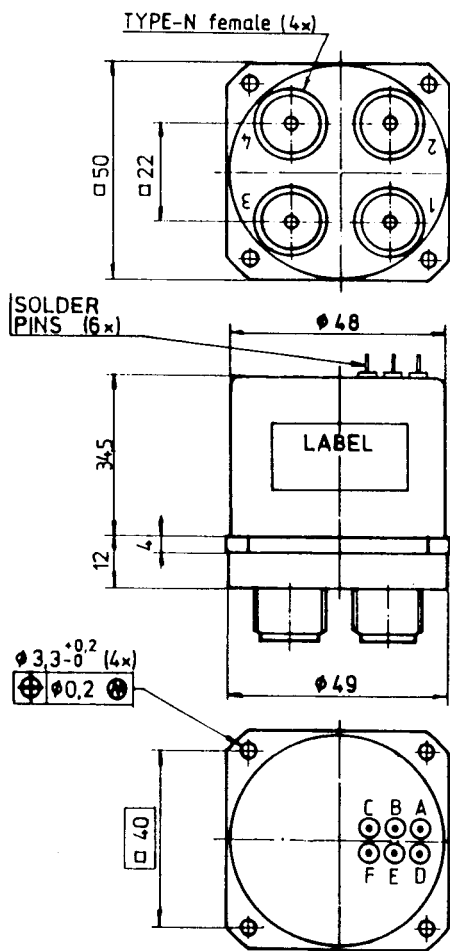
**WEIGHT:** 250 Grams

**TEMPERATURE:** - 40° C to + 85° C

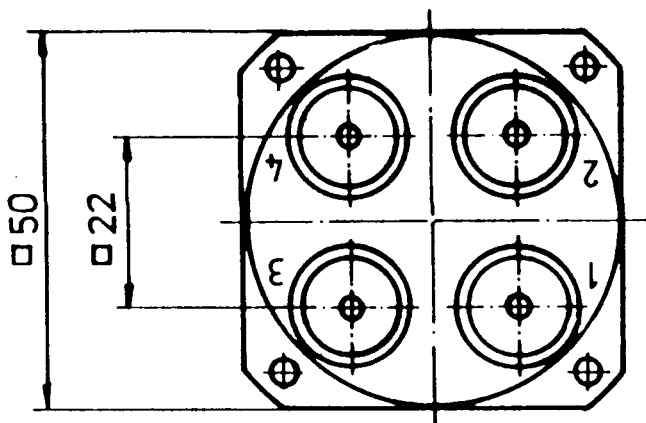
**OPERATING LIFE:** 1 Million operations

**VIBRATION:** Sine 1 mm, 5-60 Hz.  
Sine 10 g, 60-2000 Hz.

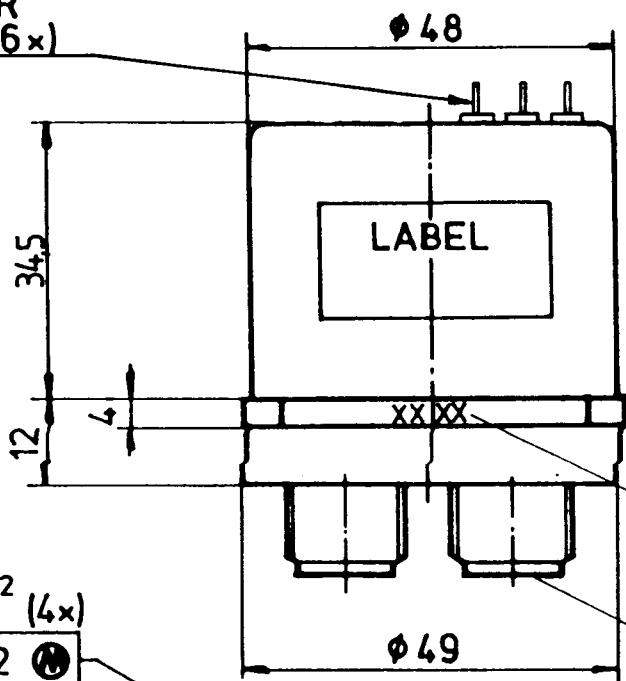
**TERMINALS:** Solder pins



Dimensions in mm



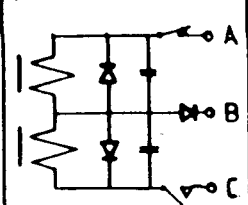
SOLDER PINS (6x)



**CIRCUIT DIAGRAM**

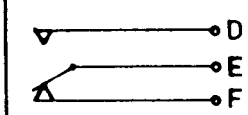
SHOWN IN POS I

**ACTUATOR**



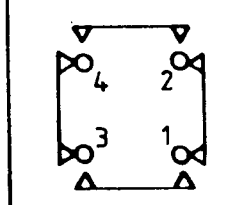
POS II +28V  
COMMON  
POS I +28V

**POS. INDICATOR**



POS II  
COMMON  
POS I

**RF CIRCUIT**

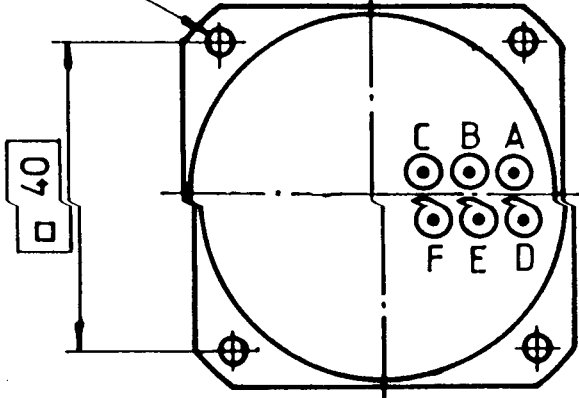


POS I 1-2 3-4  
POS II 1-3 2-4

LATCHING

FACTORY NUMBER

TYPE N Female (4x)



DÄR EJ ANNAT ANGIVS: Foteränser-ent. SMS 715-modell.  
MÄTT FÖRE BEHANDLING. Måtkäleredie max:

HAL-1114  
GÄNGOR:  
mm. 6H/6g  
tum. 2B/2A

Dat. 900711-18  
Godk. 900711-18  
Scale 1:1

Rev. D  
Bl. nr 1  
(2)

Ytjämbet Re. Skarpa kanter brutna:  
TOL. U.S.O. ± 0,5  
DIMENSIONS IN mm  
EUROP. PROJ.  
Prod. Dokum. typ

Beh. Mat.  
COAXIAL SWITCH  
TRANSFER  
LATCHING

**TESOEL**  
TS 410-00

ELECTRICAL DATA

FREQUENCY RANGE (GHz)	DC-1	1-3	3-8	8-12.4
VSWR MAX	1.10	1.20	1.35	1.5
INSERTION LOSS (db) MAX	0.1	0.2	0.3	0.5
ISOLATION (db) MIN	80	80	70	60
AVERAGE POWER W (+20°C)	400	250	175	125

IMPEDANCE : 50 Ohm  
 RF-CIRCUIT : Break-Before-Make  
 SWITCH MODE : Transfer, Failsafe,  
 Self cut-out  
 CONNECTOR : Type N Female  
 ACTUATING VOLTAGE : 28± 5 VDC  
 ACTUATING CURRENT : 600 mA at 28V and +20°C  
 SWITCHING TIME : 35 ms  
 POSITION INDICATOR : 60V/350mA, max. 4V/10mA, min

MECHANICAL DATA

RF-CONNECTORS : Stainless Steel, Goldplated  
 beryllium-copper  
 RF-CIRCUIT : Aluminium, nickelplated and  
 goldplated contacts  
 COVER : Aluminium, black anodized  
 WEIGHT : 250 grams  
 TEMPERATURE : -40 to +85°C  
 VIBRATION : Sine 1 mm, 5-60 Hz. Sine 10g  
 60-2000 Hz  
 LIFE : 1 Million Operations  
 TERMINALS : Solder pins

DÄR EJ ANNAT ANGIVES: Toleranser enl. SMS 715 medel.

MÄTT FÖRE BEHANDLING. Hålkälsradie max:

HÅL: H14

GÄNGOR:

mm. 6H/6g

tum. 2B/2A

Dat. 900711 *AB*Rev. *D*

Godk.

Bl. nr *2*

Scale

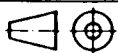
*(2)*

TOL. U.S.O.

Beh.

DIMENSIONS IN mm

Mat.



EUROP. PROJ.

Prod.

Dokum. typ

COAXIAL SWITCH  
TRANSFER  
LATCHING

**TESOEL****TS 410-00**