



Tap Position Transducer v4 TPT194

The TPT194 is a signal isolator designed to interface to Tap Position Resistors and Tap changers which are used for the purpose of maintaining a constant voltage on a power system. The TPT194 provides excitation to the tap resistors. The resultant voltage developed is measured and isolated to provide a DC output proportional output. The DC output can set to a common process signal using internal links. Final calibration is trimmed using the front accessible 'offs' and 'span' 15-turn trim adjustments.

General Specifications

Block Diagram Size: 52 W x 70 H x 110 D (mm). Housing material: ABS. supply Mounting: DIN-Rail, gear plate. Termination: Screw terminals on front Terminal covers standard. Protection class: IP40. Weight: 0.370 kg. Accuracy: 0.15% of span. Front 'OFFS' adjust: ±20% typical. Front 'SPAN' adjust: ±20% typical. 0.15% of span above 0.2mA. Linearity: Connection Repeatability: 0.1% of span. Supply Response time: 0.5 sec for T_{90} standard. ac dc Temperature effect: 0.025% per °C. SUP Operating temp. range: -10...-60°C. Storage temp. range: -20...+70°C. TAP OFFS POSITION TRANSDUCER O SPAN 10mA into 0 – 1.8kΩ. 20mA into 0 - 900Ω. Output loop drive: less than 0.2% up to maximum load stated. Output load change effect: A.P.C.S. 3.5kVrms, 5kV impulse. Isolation. TAPS INPUT Power requirements: 3W Electromagnetic compatibility: AS/NZS 4251.1 (EN 50081.1) 10 TPT194 - X 00 A X X X tap 1 Coder Code: output Ľ tap 2 Power Supply: -1 = 90-280Vac 50/60Hz (65-280Vdc). 6 = 8 - 60Vdc. R = value of tap 400 ohm default tap 3 *) 3 = 16-48Vac 50/60Hz (10-60Vdc) R tap 4 Output: selected A = Link Selectable. Please required output, the factory default is 4-20mA. R 3-wire tap connection Action:-1 = Direct *) 2 = Reverse. tap n ≃ **Option:** -Earth on terminal 3 is optional. You must specify 0 = None"Tap Resistance" A = SPL0992 50Hz, noise filter. Filter a superimposed 50Hz noise (5Vac and max) on top of the input signal, used with 3-wire connections only). "Number of Taps" Tap Connection 0 = 2-wire (CC 20V max). A constant current is **Output Link Selection - SW2** set for the specified tap resistance and number of taps. Maximum of 20mA and Output 1 2 3 4 5 6 7 8 9 10 SW2 20V. Х 1.....10 4-20mA Х 0-20mA Х 1 = 3-wire (20Vdc). A constant voltage set at a 0-10mA Х maximum of 20V calculated for the specified tap resistance and number of 0-1mA Х taps. The voltage setting is reduced if 0-1V Х Х above 20mA. 0-2V Х Х *) 2 = 3-wire (25 to 50Vdc / 20mA max). A Х 0-5V Х constant voltage set at a maximum of 50V calculated for the 1-5V Х Х Х specified tap resistance and number of taps. The voltage 0-10V Х Х setting is reduced if above 20mA. *) 3 = 3-wire 3.8Vdc. In the interest of development and improvement, APCS reserve the right to amend, without notice, details contained in this publication. APCS will accept no legal *) 4 = 3-wire constant current low resistance taps (CC 2.5V max) liability for any errors, omissions or amendments.

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