

### SERIES 2000 SWITCHES

**SINGLE SWITCH ENCLOSURE:**

Compliant to: **(CE)** EN IEC 60079-0:2018  
 EN IEC 60079-15:2019  
 EN IEC 60079-7:2015 + A1:2018  
 Ⓢ II 3G Ex ec nC IIC T6 Gc (Tamb = -20°C to +60°C)  
 Directive: 2014/324/EU  
 Certificate Number: Baseefa03ATEX0319X – Issue 4  
 Certifying Authority: **SGS Fimko Oy**

**(UKCA)** EN IEC 60079-0:2018  
 EN IEC 60079-15:2019  
 EN IEC 60079-7: 2015 + A1: 2018  
 Ⓢ II 3G Ex ec nC IIC T6 Gc (Tamb = -20°C to +60°C)  
 UKSI:1107 (as amended)  
 Certificate Number: BAS22UKEX0248X  
 Certifying Authority: **SGS Baseefa Limited**



**Description of Equipment**

Type ATEX E(d) Range of Pressure Switches rated at 250V a.c. 5A Inductive (0.75PF @ 50Hz), 30V d.c. 3A Inductive (100mH), 30V d.c. 5A Resistive comprising of a separate pressure unit, switch unit and terminal chamber bolted together to form the pressure switch assembly. All pressure units have the same mating dimensions to fit the switch unit. The pressure assembly may be diaphragm, piston or bellows operated and in all cases the switch unit is sealed from the pressure unit and is protected against over pressure by a buffer plate.

The pressure chamber of the power unit may be made from Aluminium, Phosphor Bronze, Monel, Titanium, Hastelloy, Aluminium-Bronze, Incolloy, PTFE, PVDF or Stainless Steel and the diaphragm from PTFE, Stainless Steel, Buna-N, Teflon FEP, EPDM, Tantalum, Monel or Viton, the piston and bellows Stainless Steel.

The movement of the diaphragm, piston or bellows is transmitted into the aluminium switch unit by a pushrod, and this compresses a range spring which has been pre-stressed by an adjustment screw. Springs with various rates are used to give different pressure ranges. The movement of the push rod is transmitted via a buffer spring to an angle lever which actuates a Honeywell Type 91SE1 enclosed break microswitch certified as KEMA03ATEX1182U. The switch unit enclosure is sealed by means of an Aluminium cover and a Neoprene gasket.

The microswitch leads pass via a silicone sealant filled plastic tube and are terminated in a Klippon type MK3/12 terminal block housed in a Klippon type K1 terminal enclosure which is mounted on the switch unit. A suitably tapped hole (M20 x 1.5 Int.) is provided in this enclosure for a cable entry device.

A code for the manufacturer's type reference of the pressure switches including pressure range, pressure chamber material, power unit model and diaphragm material used is shown in Drawing No. A3-3978.

**Variation 0.1**

To allow for Type ATEX E(d) Range of Temperature Switches.

These are almost identical to the pressure switches but have bellows in place of the pressure chamber of the power unit. The bellows are connected to a sensing bulb via a fixed or flexible capillary. To achieve various measurement ranges the bellows-capillary sensor-unit is filled with liquids having different coefficients of expansion.

A code for the manufacturer's type reference of the temperature switches including temperature range, bulb material and capillary type is shown in Drawing No. A3-3978.

