

## Cylindrical, metal bodied units



**990** - Will be replaced by Series 992

Dimensions Housing material Nominal sensing dist. ( $S_n$ ), shielded S, unshielded U Repeatability (R) S/U Sealing; tightening torque at mid-point (Nm) Type of connector; size of standard target	M18 Brass 5 mm S ≤±1% IP67; 40 H; 18 x 18 mm	M18 Brass 8 mm U ≤±3% IP67; 40 H; 24 x 24 mm	M18 Brass 5 mm S ≤±1% IP67; 40 H; 18 x 18 mm	M30 Brass 10 mm S ≤±1% IP67; 40 H; 30 x 30 mm		
Series 921 (dc)	Analogue Supply voltage ( $V_b$ ); ripple Current consumption sensed; unsensed Max. load current ( $I_a$ ) Max. operating frequency ( $f$ ) Circuit protection Termination; wiring diagram					
Series 922 (dc)	NPN N/O PNP N/O NPN N/C PNP N/C NPN Changeover PNP Changeover Supply voltage ( $V_b$ ); ripple; voltage drop ( $V_d$ ) Current without load ( $I_0$ ) Max. load current ( $I_a$ ); leakage current ( $I_r$ ) Max. operating frequency ( $f$ ); hysteresis (H) Circuit protection Termination; wiring diagram Power loss ( $T_u = +50^\circ\text{C}$ to $+85^\circ\text{C}$ ) Compliant: EN60947-5-2 (CE)	922AA3HM-A9N-L 990 922AA3HM-A9P-L 990  922AA3HM-C9P-L	922AB3HM-A9N-L 990 922AB3HM-A9P-L 990  9.6 to 50 Vdc; 10%; ≤2.2 Vdc ≤10 mA 200 mA; ≤50 µA 1 kHz; 3 to 15% Sr ⑤ * Binder-Metal; 2 0 N/A	922SA3XM-A9P-L 9.6 to 50 Vdc; 10%; ≤2.2 Vdc ≤10 mA 200 mA; ≤50 µA 0.5 kHz; 3 to 15% Sr ⑤ * Binder-Metal; 2 0 N/A	922AA4XM-A9N-L 990 922AA4XM-A9P-L 990 922AA4XM-B9N-L 990 922AA4XM-B9P-L 990 922AA4XM-C9N-L 922AA4XM-C9P-L 9.6 to 50 Vdc; 10%; ≤2.2 Vdc ≤10 mA 200 mA; ≤50 µA 0.5 kHz; 3 to 15% Sr ⑤ 3 x 0.34 - PVC; 2 0 N/A	922AA4XM-A9N-L 990 922AA4XM-A9P-L 990 922AA4XM-B9N-L 990 922AA4XM-B9P-L 990 922AA4XM-C9N-L 922AA4XM-C9P-L 9.6 to 50 Vdc; 10%; ≤2.2 Vdc ≤10 mA 200 mA; ≤50 µA 0.5 kHz; 3 to 15% Sr ⑤ 3 x 0.34 - PVC; 2 0 PENDING
Series 923 (ac)	N/O N/C Supply voltage ( $V_s$ ); voltage drop ( $V_d$ ) with/without LED Min./max. load current ( $I_a$ ); leakage current ( $I_a$ ) Max. operating frequency ( $f$ ); hysteresis (H) Circuit protection Termination; wiring diagram Inrush current ( $I_k$ ) Power loss ( $T_u = +50^\circ\text{C}$ to $+85^\circ\text{C}$ ) Compliant: EN60947-5-2 (CE)	923AA3HM-A7T-L	923AB3HM-A7T-L 20 to 250 Vac; 8/6 Vac 10 to 500 mA; ≤1.5 mA 20 Hz; 3 to 15% Sr ④ * Binder-Metal; 5 1.2 A/20 ms -10 mA/°C N/A	923AB3HM-A7T-L 20 to 250 Vac; 8/6 Vac 10 to 500 mA; ≤1.5 mA 20 Hz; 3 to 15% Sr ④ * Binder-Metal; 5 1.2 A/20 ms -10 mA/°C N/A	923AA4XM-A7T-L 923AA4XM-B7T-L 20 to 250 Vac; 8/6 Vac 10 to 500 mA; ≤1.5 mA 20 Hz; 3 to 15% Sr ④ 3 x 0.50 - PVC; 5 1.2 A/20 ms -10 mA/°C N/A	
Series 926 (dc)	N/O N/C Supply voltage ( $V_s$ ); ripple; voltage drop ( $V_d$ ) Max. load current ( $I_a$ ); leakage current ( $I_a$ ) Max. operating frequency ( $f$ ); hysteresis (H) Circuit protection Termination; wiring diagram Power loss ( $T_u = +50^\circ\text{C}$ to $+85^\circ\text{C}$ ) Compliant: EN60947-5-2 (CE)				926AA4XM-A9T-L 9.6 to 50 Vdc; 10%; ≤6 Vdc 6 to 100 mA; ≤0.7 mA 1 kHz; 3 to 15% Sr ⑤ 3 x 0.34 - PVC; 4 0 N/A	

### Note

Where devices are specified with plastic body material this refers to industrial plastics and polycarbonates such as ABS, glass filled polyester etc.

\* For connector details refer to the Connectors section on page 11.

\*\* See page 10 for wiring diagrams.

### - Circuit protection

- ① Circuit protection for 921 Series.
  - ② Protection against reverse polarity and sustained short-circuit.
  - ③ Protection against reverse polarity, 300 V/ms at 1 kOhm.
  - ④ No protection.
  - ⑤ Protection against reverse polarity and sustained short-circuit, 200 V/ms at 1 kOhm.  
926 Series: protected against sustained short-circuit.

