

Instrumentation

PPL8 series type J, K & T thermocouple temperature transmitter

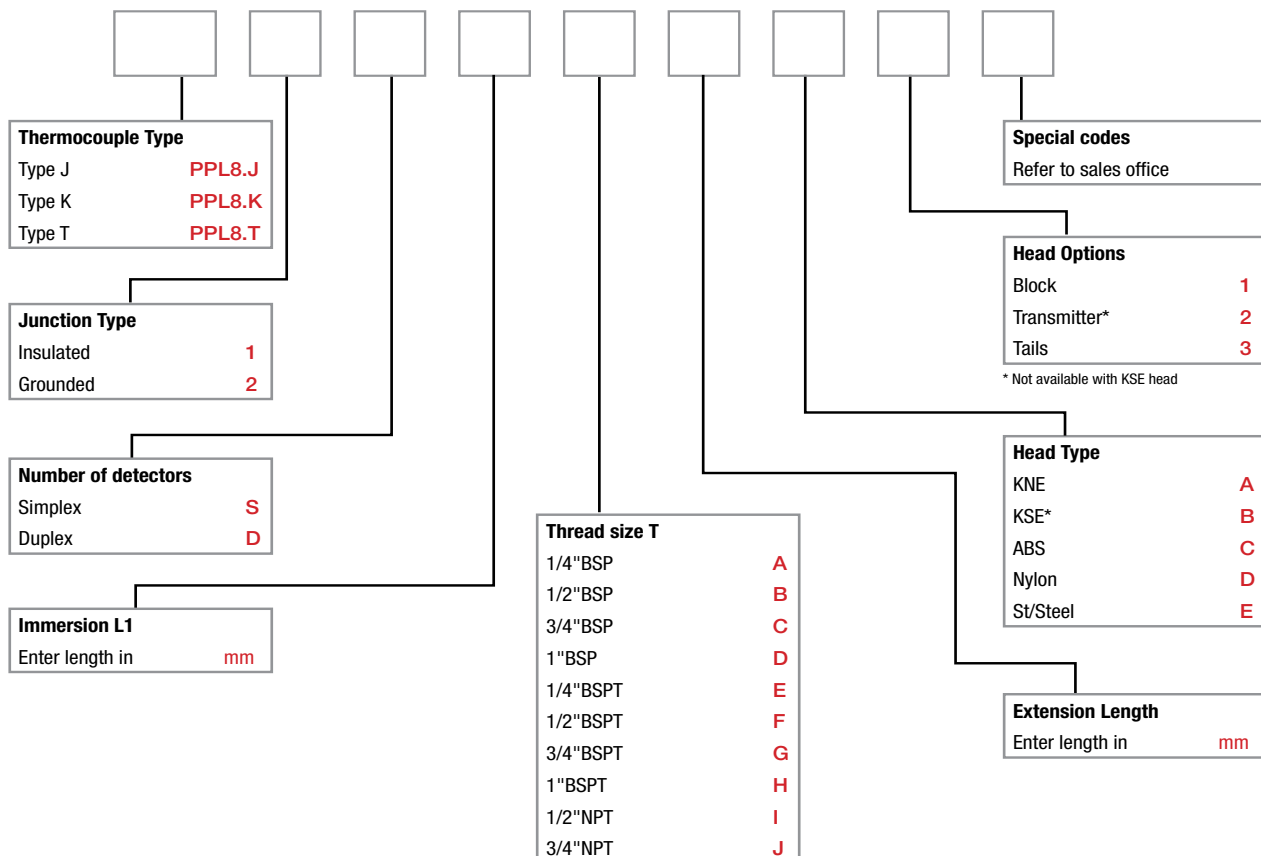
The PPL8 sensor incorporates a pocket as well as a spring loaded insert which allows the sensor to be withdrawn extremely easily without breaking into the process line. We can manufacture the sensor stem in any immersion length and process connection to meet your exact requirements. A lagging extension can also be specified and with various options available for the terminal head, including IP68 stainless steel versions, we are sure to satisfy all of your requirements.



Technical Information

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|------------------------|--|
| Sensor Type | Type J, K or T thermocouple |
| Operating Range | -50 to 250°C (Unless Otherwise Requested) |
| Sheath Material | 316 stainless steel |
| Tolerance Band | BS EN 60584-2:1993 Class 1 or Class 2 |
| Wiring System | Simplex or Duplex |
| Head Types | A - KNE Aluminium Alloy, IP68 B - KSE Aluminium Alloy, IP68 C - ABS, IP67 D - Glass Filled Nylon, IP65 E - 316 stainless steel, IP68 (Other heads available upon request) |
| Head Options | A - Ceramic Terminal Block B - In Head Transmitter—SEM203P (Specify Range) C - Tails for Customers Own Transmitter |

Options & Ordering Information



Instrumentation

RT38 low cost miniature DIN programmeable LED display

The economic programmable controller RT38 is designed for wide range of ON/OFF control applications. Equipped with a 3-digit LED display, RT38 is especially suitable for measuring and controlling various technological values with resolution of up to 1000 points. It can be ordered in various cases including the smallest 1/32 DIN case, and for different power supplies. The device has 1 programmable relay control/alarm output and is available in 2 universal-input versions: RTD - for 7 selectable Pt and 4 Cu sensor types, and T/C - for 3 selectable thermocouples as well as versions for linear current and voltage signals.



RT38 allows an automatic software compensation of line resistance and cold junction temperature.

The display-to-input correspondence (in case of linear input), the decimal point position, the temperature measuring unit as well as the offset value are also programmable. Thanks to its power supply options, semi-universal input, and excellent price-to-performance ratio, RT38 is an exceptionally widely applicable device.

- Low cost
- 5 DIN case sizes - down to 1/32 DIN norm
- Low power consumption
- Pt100/Thermocouple or Analogue inputs
- Various power supplies with optional relays
- Fully programmable parameters

Technical Information

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|-------------------------------|--------------------------------|
| RTD, DIN (w=1.385); 3-wire | Pt50, Pt100, Pt500, Pt1000 |
| RTD, GOST (w=1.391); 3-wire | Pt46, Pt50, Pt100, Cu50, Cu100 |
| RTD measurement range | -100...600 °C |
| Thermocouple "T" | -40...400 °C |
| Thermocouple "J" | -20...999 °C |
| Thermocouple "K" | -20...999 °C |
| Linear voltage 0...10 V | -199...999, programmable |
| Linear current 0(4)...20 mA | -199...999, programmable |
| Two-wire external transmitter | 4...20 mA (1) |
| RTD or T/C type selection | programmable |
| Decimal point selection | programmable |
| Temperature measurement unit | °C or °F, programmable |
| Relay electromechanical | 5A/250V w/ NO/NC (2) contact |
| Solid state relay | 1A/250VAC (3) |
| MOS gate | 0.1A/60V, optically isolated |
| Output for external SSR | 5...24 V, 30 mA |
| Control algorithm | ON/OFF |
| Set point | within input range limits |
| Alarms | programmable |

| | |
|--------------------------------|--------------------------------|
| Measurement error | 0.3% from span |
| Temperature drift | 0.02% from span for 1°C |
| Cold junction compensation | automatic, -10...80 °C |
| RTD line compensation | automatic, up to 2 x 25 Ω |
| Mains supply voltage | 230 VAC (4) or 115 VAC (4) |
| SMPS voltage | 90...250 VAC/DC (5) |
| Isolated low voltage | 12...24 VAC/DC or 24 VAC (4) |
| Non-isolated low voltage | 12...24 VAC/DC |
| External mains transformer (6) | 9(12) VAC |
| Consumption | max. 1.5 VA |
| Digital display | 3 LED indicators |
| LEDs | LED for output state |
| Keyboard | 2 or 3 membrane keys, lockable |
| Operating temperature | -10...65 °C |
| Operating humidity | 0...85 %RH |

(1) Provides loop supply voltage - 24 VDC (only w/ isolated power supply) (2) N.O for case 'M' (3) 0.2A/250VAC for case 'M' (4) Not available for case 'M' (5) Not available for cases 'L' and 'M' (6) Order separately (8) Not available on cases 'S' and 'M'

Options & Ordering Information

| Feature or option | Order Code RT38-X.X.X.X.X |
|----------------------------|---|
| Case (front size) | B - 96x96 mm, H - 96x48 mm, V - 48x96 mm, S - 48x48 mm, L - 72x36 mm, M - 48x24 mm |
| Power supply | A - 230 VAC (4), B - 115 VAC (4), C - 90...250 V (5), E - 9(12) VAC w/ external transformer (6), P - 12...24 V, non-isolated, Q - 12...24 V, isolated, R - 24 VAC (4) |
| Relay output | X - none, C - relay NO/NC (2), D - SSR, J - for external SSR, M - isolated MOS gate |
| Input | B - RTD (programmable), C - thermocouple (programmable), D - 0(4)...20 mA, DK - 0...10 V |
| Increased front protection | X - none, P - IP65 front protection (8) |

Ordering Example RT38-M.Q.C.D.X