



合肥皖科智能技
HEFEI WNK SMART TECH

PRODUCT MANUAL WNK125PT

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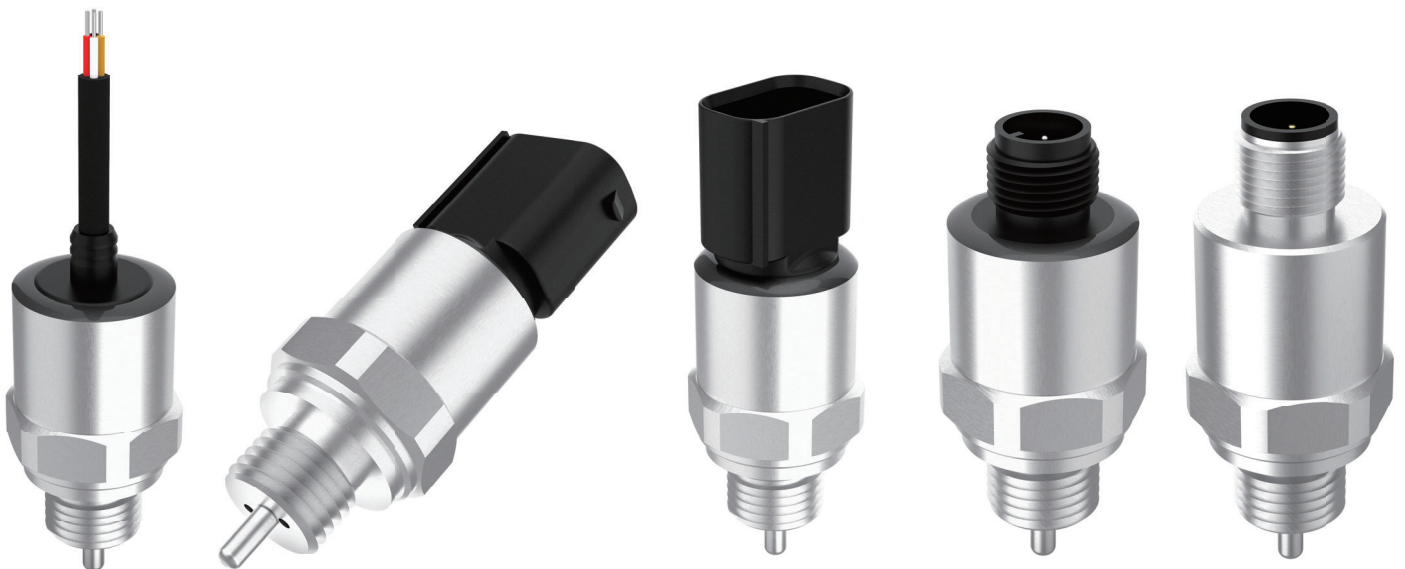


PRODUCT INTRODUCTION

WNK125PT is an integrated temperature and pressure sensor that can measure temperature and pressure at the same time.

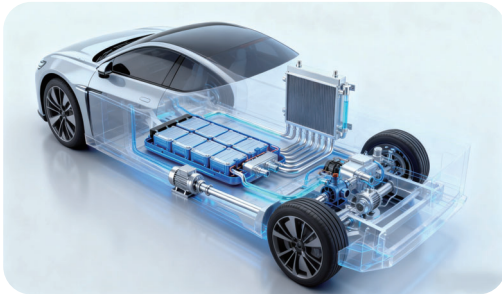
The temperature is a set of NTC thermistor signals. The NTC temperature sensor is protected by a metal shell. The sensing element does not contact the measured medium. The resistance signal line is directly connected to the PCB board through the lead, which solves the temperature measurement failure caused by vibration and corrosion.

The pressure is a voltage signal or Current signal. The pressure sensor uses a diffused silicon metal diaphragm oil-filled process and a fully welded sealing process to eliminate the risk of leakage caused by the sealing performance of the sealing ring and the corrosion of the sealing material by the measurement medium. The measured media applicability is wider. This pressure sensor has high temperature stability and accuracy and is mainly used in new energy vehicle thermal management systems, air conditioning and other fields.





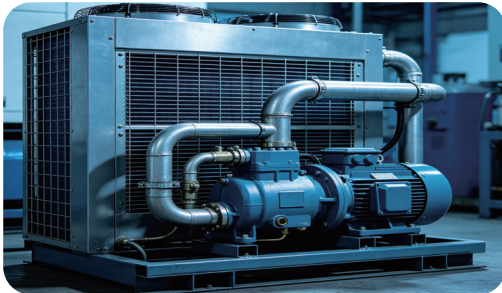
APPLICATION



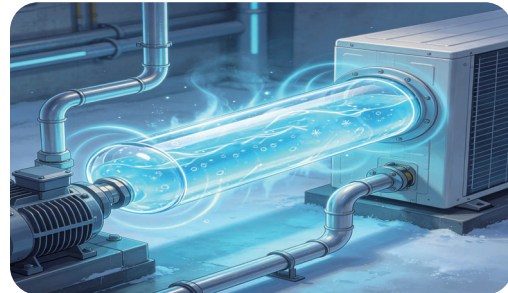
**New energy vehicle
thermal management system**



**Liquid-cooled
energy storage system**



Heat pump



HVAC

FEATURES

- Multiple process connection options and easy installation.
- 1% typical accuracy provides superior accuracy for critical applications.
- Factory calibrated, no on-site calibration required. Plug and play reliability.
- Sturdy and compact design, saving installation space.
- OEM/ODM available and can be adapted to special needs.
- Designed with a fully welded construction, it is compatible with a wide range of media.



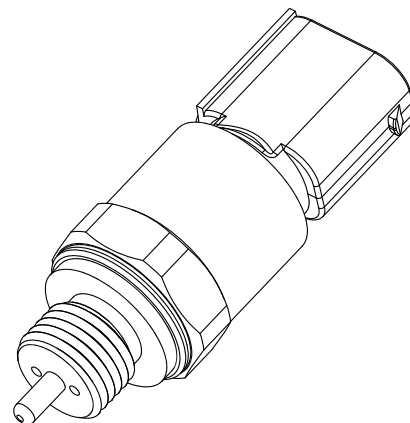
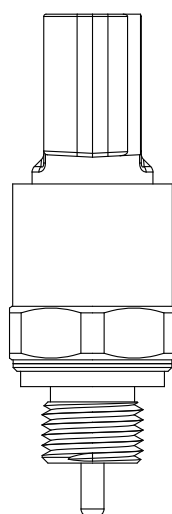
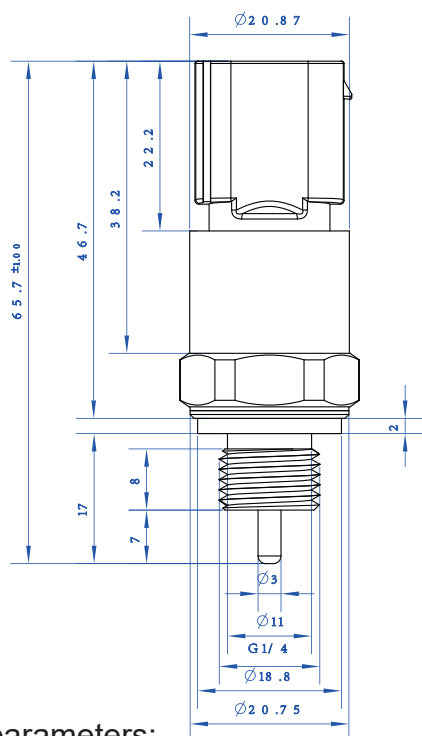
SPECIFICATION PARAMETERS

Model	WNK125PT
Supply voltage	5V DC, 12~30V DC
Pressure range	0~5...50Bar, (customized)
Output	0.5V~4.5V DC, (10%-90%Vcc), 4~20mA
Process connection	G1/4, 1/4NPT, M12x1.25, (can be customized)
Electrical connection	TE 1-967640-1, Cable outlet, M12 4pin
Operating temperature	-40℃~135℃
Storage temperature	-40℃~135℃
Safety pressure	2 times the sensor range
Destroying pressure	10MPa G
Protection level	IP67
Accuracy	±1%F.S (linearity, hysteresis, repeatability, calibration) Static error band @25℃, 5VDC
NTC accuracy	±1%F.S
Total error band	±3%(-40℃~135℃)
Medium	Engine oil, POE oil, refrigerant, gas, water or liquid
Material	Temperature probe and housing 304 stainless steel; connector PPE+PAGF30
Installation torque	8~15N·m

Output	0.5~4.5v	4~20mA	10%~90%Vcc
Power (DC)	5v	12-30V	3.3~5V

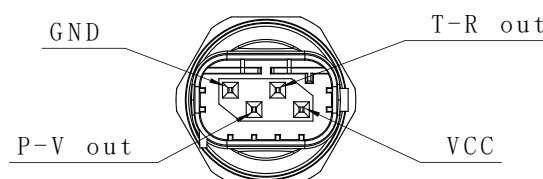
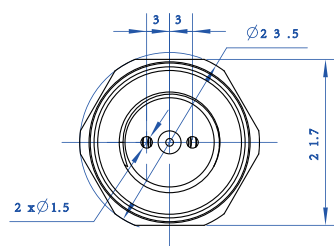
PRODUCT SIZE

Unit: mm



R/T parameters:

R25=10. 00K Ω $\pm$ 1%		B25/85=3435K $\pm$ 1%	
T (°C)	Rmin (K Ω)	Rnom (K Ω)	Rmax (K Ω)
-40	202.497	210.874	219.576
-30	115.973	120.093	124.347
-20	69.410	71.504	73.654
-10	42.855	43.933	45.034
0	27.190	27.746	28.311
10	17.737	18.022	18.310
20	11.926	12.069	12.213
25	9.900	10.000	10.100
30	8.186	8.284	8.383
40	5.710	5.799	5.889
50	4.070	4.147	4.226
60	2.952	3.018	3.085
70	2.174	2.229	2.286
80	1.623	1.669	1.716
90	1.227	1.266	1.305
100	0.940	0.972	1.004
110	0.728	0.755	0.782
120	0.571	0.593	0.617
130	0.453	0.472	0.492
140	0.364	0.380	0.396
150	0.296	0.309	0.323

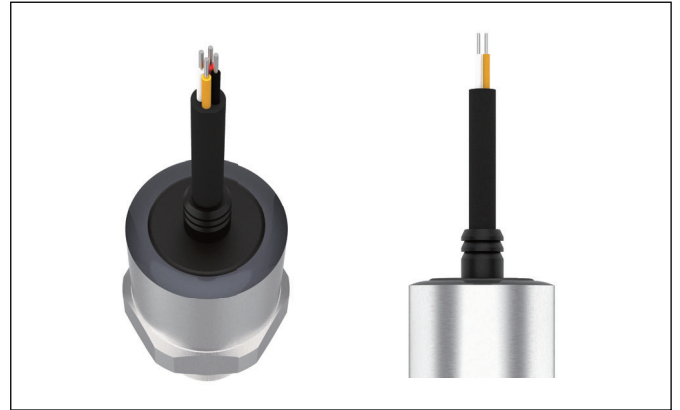


ELECTRICAL CONNECTION

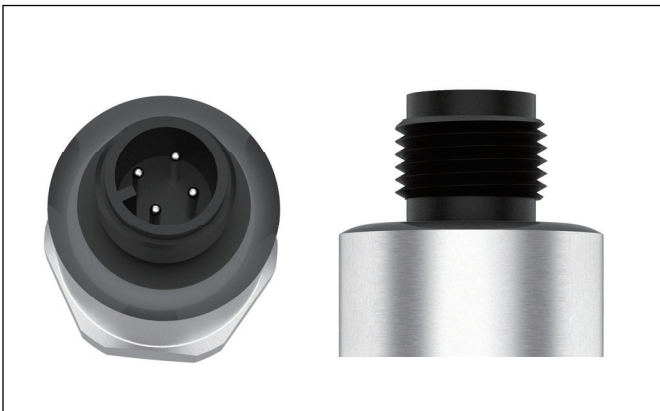
TE 1-967640-1



Crimp-type Cable outlet



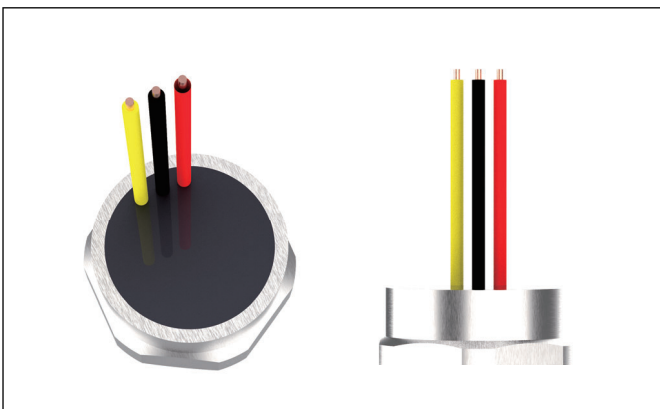
Crimp-type M12 4pin



Welding-type M12 4pin

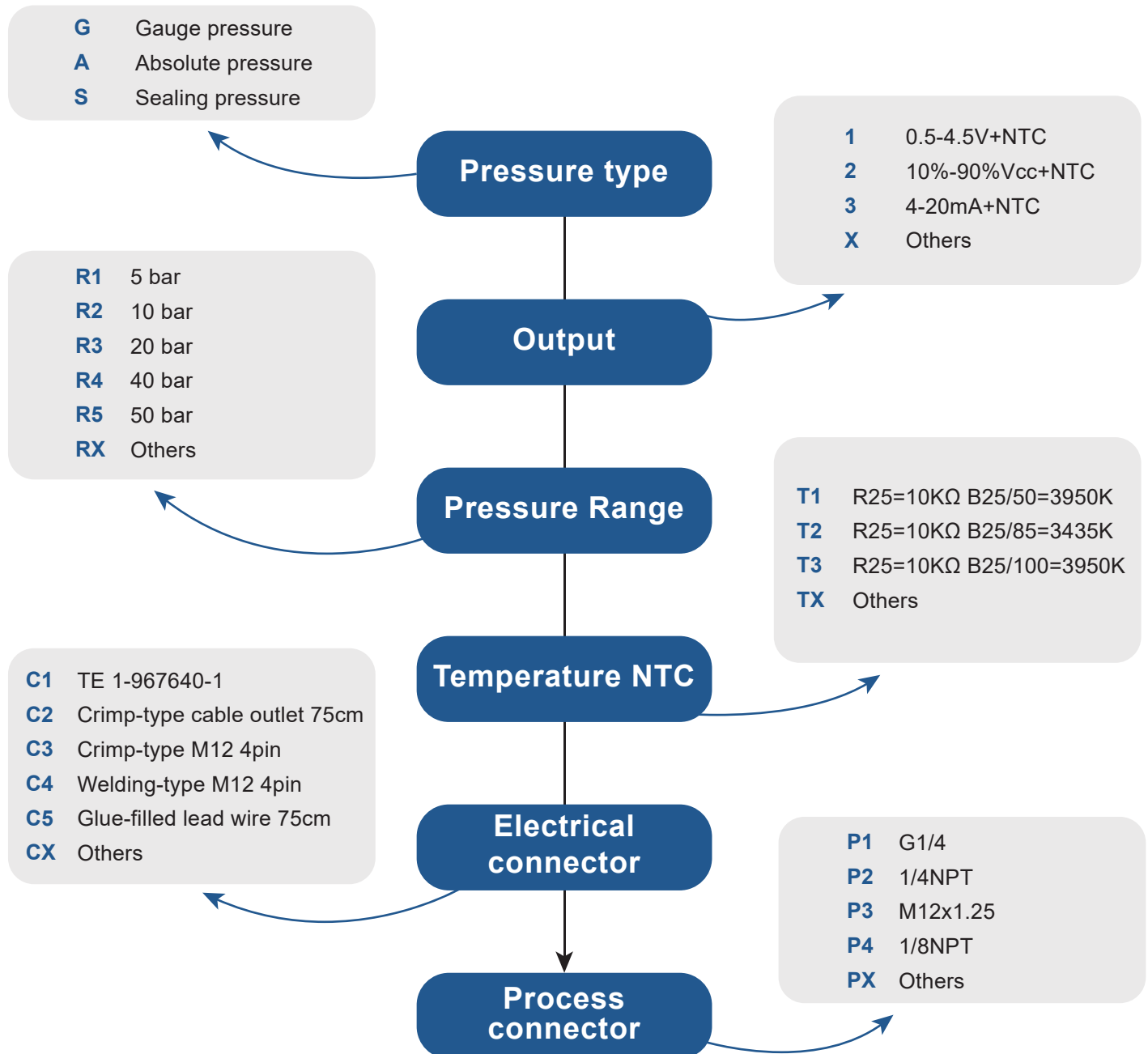


Glue-filled lead wire





SELECTION GUIDE



Please select your selection code : **WNK125PT-G-2-R2-T2-C1-P1**