

K3 PRO External Output Signal User Guide

1. Overview

K3 Pro reserves a signal output port on the device. Use the DC plug and connect the circuit. It can implement application functions including but not limited to automatic access control and flow statistics.



2. Technical Data

Item	Symbol	Nominal Value
Maximum collector voltage	V_{CEO}	<35V
Maximum reverse voltage	V_{ECO}	<0.2V
Maximum output sink current	I_c	<15mA
Maximum leakage current in off state	I_{CEO}	<100nA @ $V_{CE}=20V$
Collector saturation voltage	$V_{CE(sat)}$	<0.2V @ $I_c=1mA$
Isolation voltage	V_{ISO}	5000Vrms@AC,1min
Isolation resistance	R_{IO}	$5 \times 10^{10} \Omega$ @ $V_{IO} = 500Vdc$
Equivalent output circuit		<p>OC output, can only output high resistance and low frequency</p>

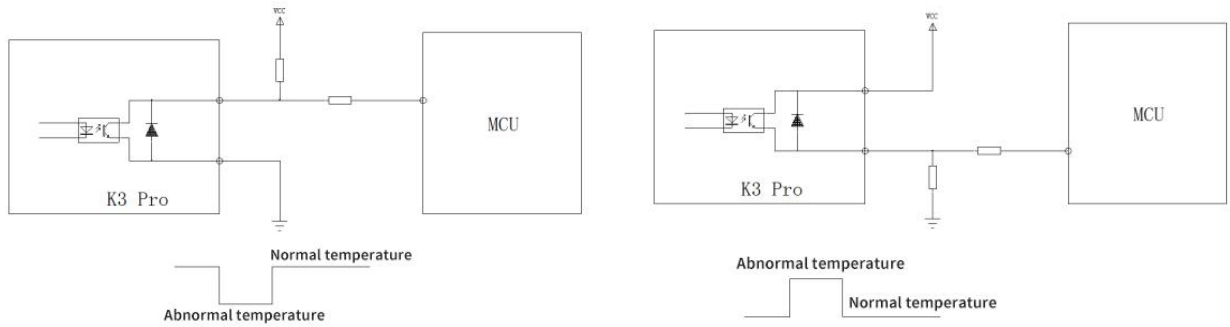
3. Description of output signal

Signal type	Normal temperature	Abnormal temperature
S1	output signal cutoff	output signal on
S2	100 μ s Output signal on about 100 μ s	500 μ s Output signal on about 500 μ s

4. Examples of wiring diagrams for these mode

K3 Pro provides S1 and S2 signal output modes. This section introduces common wiring examples in S1 and S2 mode. This article does not make any guarantees for the circuit, only for design reference. Users need to modify according to their actual use.

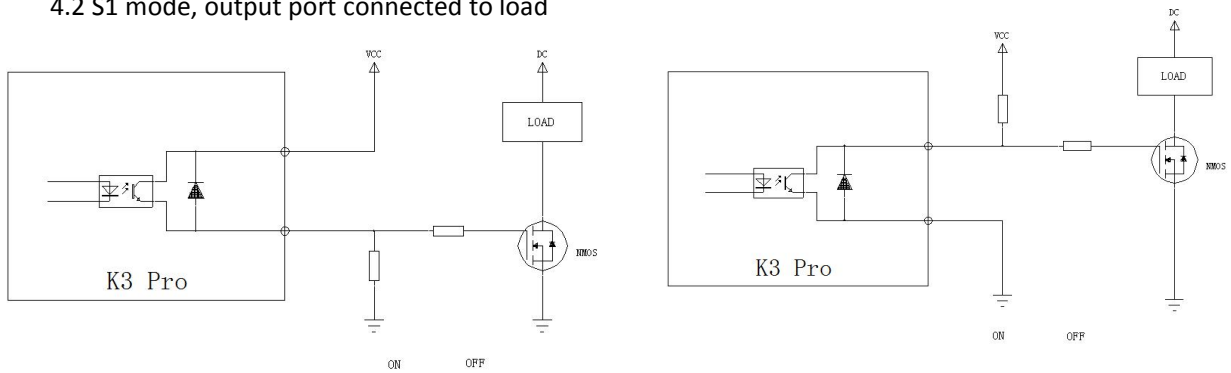
4.1 S1 mode, output signal connected to MCU



Output signal forward

Output signal reverse

4.2 S1 mode, output port connected to load

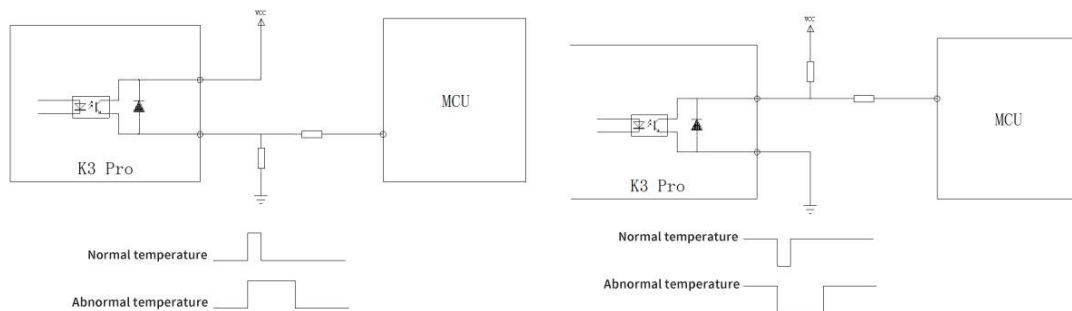


Abnormal temperature ON

Normal temperature ON

Note: Due to the limited output current, users need to design the drive circuit according to the load power requirements. When inductive/capacitive loads are connected, the influence of inductive/capacitive loads on the circuit should be considered.

4.3 S2 mode, output port connected to MCU



Positive pulse direction

Negative pulse direction