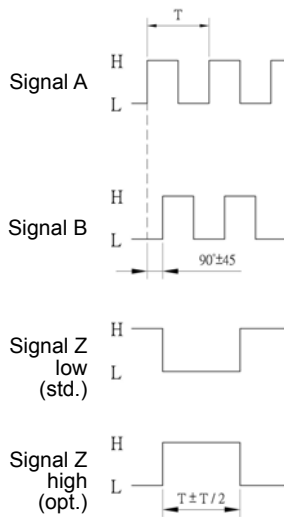


# INCREMENTAL ENCODER'S ELECTRICAL DATA

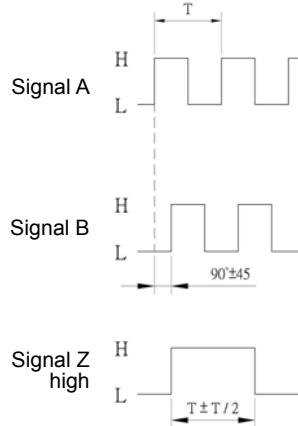
## 增量型電氣特性

### Output Wave Form 輸出波形圖

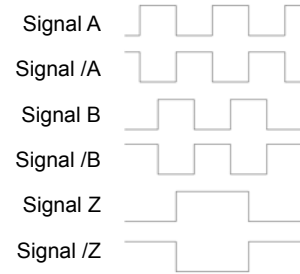
NPN Voltage / NPN Collector



Push Pull



Line Driver

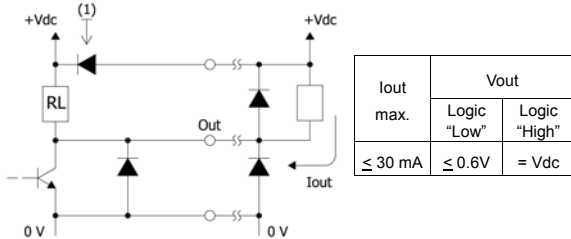


### Circuit of Output Signal 電路輸出信號

Vdc = supply voltage  
Vout = output Voltage  
Iout = output current  
RL = load resistance

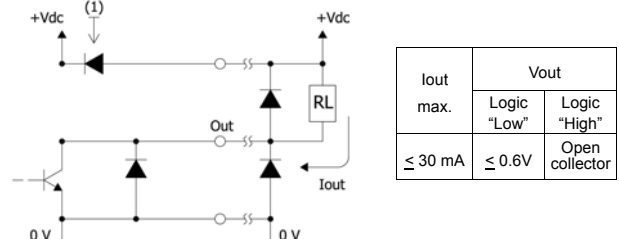
\* reverse polarity protection not available with 5Vdc supply voltage

NPN Voltage Supply voltage V d.c. = DC 5V and DC 8-26V

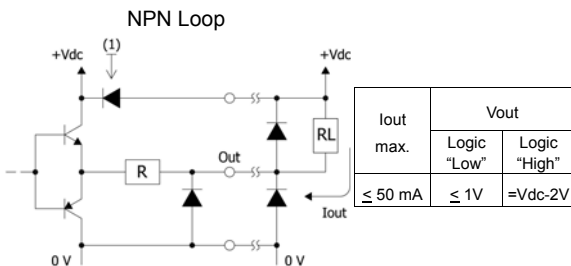


5Vdc: RL = 2.2K ohms / 5-12Vdc: RL = 2.2K ohms / 8-26Vdc: RL=4K7 ohm  
Max. Length of Cable 6 m at 50K Hz

NPN Open Collector Supply voltage V d.c. = DC 5V and DC 8-26V



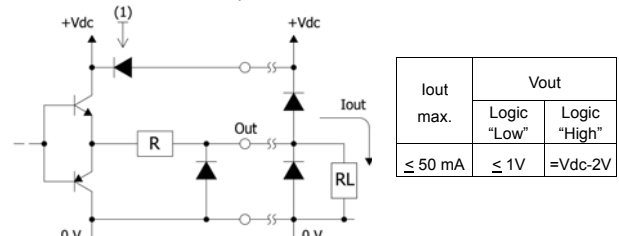
Push Pull (NPN+PNP) Supply voltage V d.c. = DC 5V and DC 8-26V



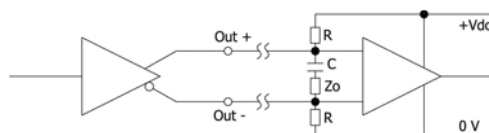
R=47 ohm

Max. Length of Cable 50 m at 50K Hz

PNP Loop



Line Driver Supply voltage V d.c. = DC 5V and DC 5-26V



R = 4K7 ohm C = 10nF ZO = 150 Ohm  
Max. Length of Cable 100 m at 100 Hz

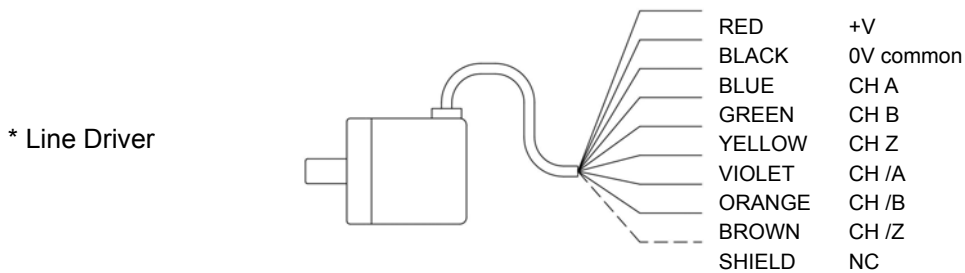
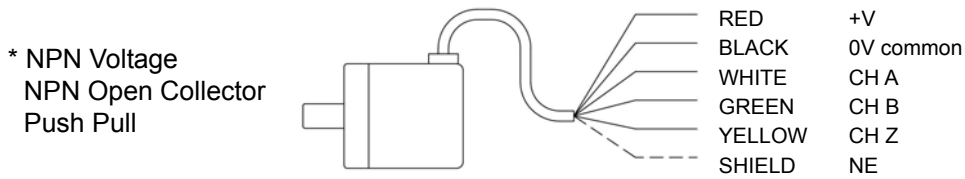
- Power supply 5Vdc: 26LS31; I out 20mA max.

- Power supply 5-26Vdc: ET7272; I out 40 mA max

# ◀ INCREMENTAL ENCODER'S ELECTRICAL DATA ▶

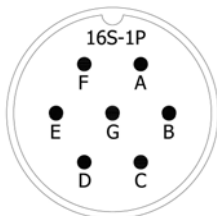
## 增量值型電氣特性

### • Electrical Connection 接線圖 (wire output)



### • Electrical Connection 接線圖 (connector output)

**7 PIN CONNECTOR**  
[Type]MS3102A16S-1P



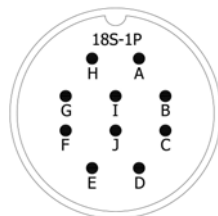
\* for NPN Voltage, NPN Open Collector, Push Pull

PIN A	+V
PIN B	0V common
PIN C	CH A
PIN D	CH B
PIN E	CH Z
PIN F	---
PIN G	---

\* for Line Driver (A, /A, B, /B)

PIN A	+V
PIN B	0V common
PIN C	CH A
PIN D	CH B
PIN E	---
PIN F	CH /A
PIN G	CH /B

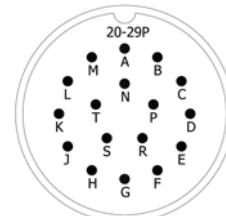
**10 PIN CONNECTOR**  
[Type]MS3102A18S-1P



\* for Line Driver (A, /A, B, /B, Z, /Z)

PIN A	+V
PIN B	0V common
PIN C	CH A
PIN D	CH B
PIN E	CH Z
PIN F	CH /A
PIN G	CH /B
PIN H	CH /Z
PIN I	---
PIN J	---

**17 PIN CONNECTOR**  
[Type]MS3102A20S-1P  
~only for HPN-6D series~



\* for Line Driver (A, /A, B, /B, Z, /Z)

PIN A	CH A
PIN B	CH Z
PIN C	CH B
PIN D	---
PIN E	---
PIN F	---
PIN G	---
PIN H	+V
PIN J	---
PIN K	0V common
PIN L	---
PIN M	0V common
PIN N	CH /A
PIN P	CH /Z
PIN R	CH /B
PIN S	---
PIN T	BODY