

T80 电子换挡器**T80 Electronic Transmission Shifter****➤ 产品介绍 Product Description**

T80 电子换挡器专为重载非公路车辆设计。操控上端设计美观、符合人体工程学，换挡器整体结构紧凑，便于安装。

The T80 Electronic Transmission Shifter is specially designed for a variety of heavy duty off-road vehicles. The grip was designed in the fashionable and ergonomic style and the compact structure of the shifter allows easy installation.

高硬度耐磨不锈钢和主要结构件压装工艺的应用，保证了产品的可靠、稳定、精确、寿命长的特性。

The application of high hardness and wear-resistant stainless steel and pressure fitting process ensures the reliability, stability, accuracy, and long service life of the product.

T80 换挡器提供三档到六档的选择。档位切换给操作手清晰而明确的力反馈。

The shifter provides the option from three to six positions, and also position-shifting gives the operator a strong and clear force feedback.

除单独用作换挡器外，T80 的典型应用还有：换挡器+辅助系统（比如车斗举升）并排做为操控组合。

The T80 is built to work individually as the shifter or in multiple lever assemblies in applications where an auxiliary system (such as hoist/dump control) is traditionally mounted next to the transmissions shifter.

T80 标准配置是 CAN 信号输出。也可以定制其它输出信号。

The T80 is designed with CAN Communication capability as the standard, and other output signals can be specified as required.

**➤ 产品特点 Product Features**

- 三档到六档的选择
3 to 6 positions optional
- 档位机械锁止或弹簧复中位可选。
Mechanical detents on positions and spring return to the centre is optional.
- 集成12针连接器。
provides the 12-pin integral connector
- 上端及电路部分IP67
IP67 above panel & electronics

➤ 主要技术参数 Technical Specifications

机械性能 Mechanical specifications

档位角度	Position angles	28° for 3-POS 三档 42° for 4-POS 四档 56° for 5-POS 五档 70° for 6-POS 六档
操作力(弹簧复中位功能)	Operating force	4-10N
档位切换操作力	Shift force	25N
使用寿命	Life expectancy	2 million cycles 200 万次
重量	Weight	1400g

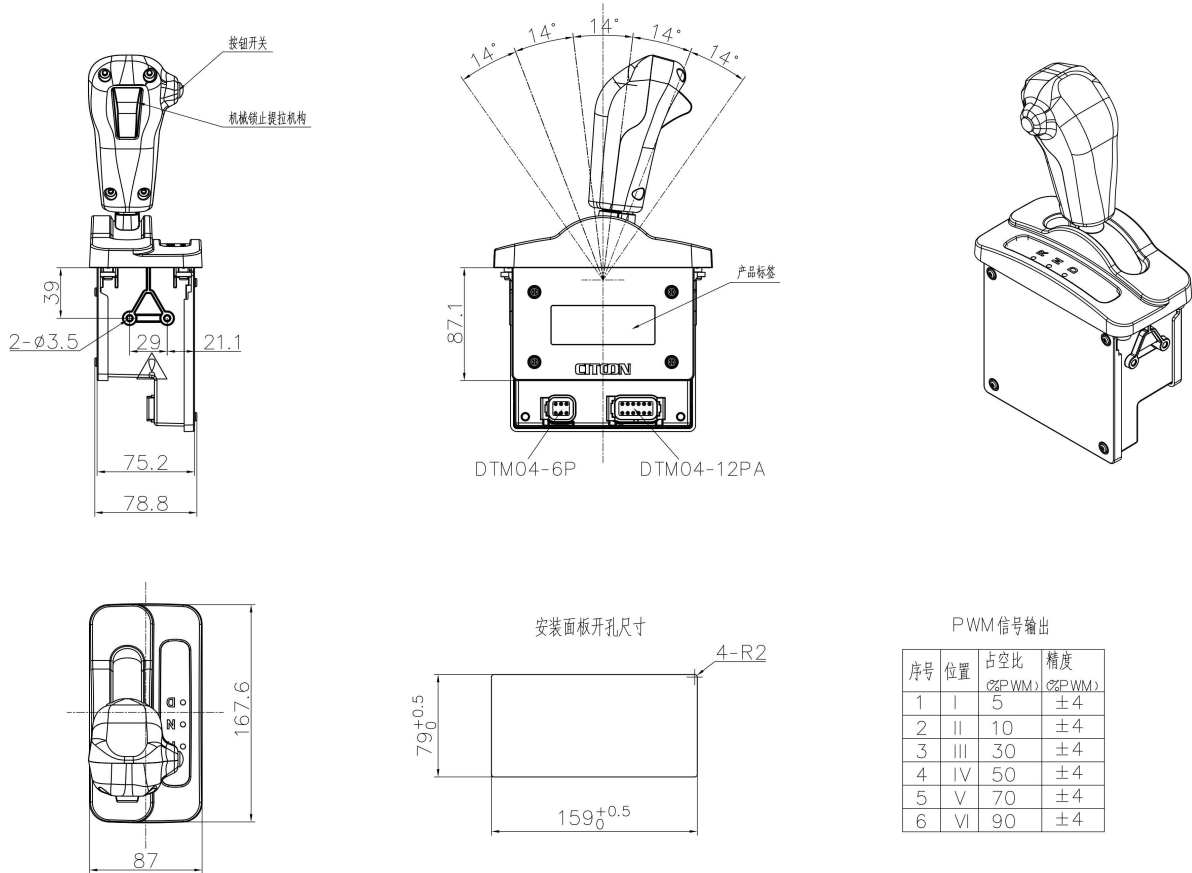
电气性能 Electrical specifications

供电电压	Operating voltage	9-32Vdc
电流消耗	Current consumption	75mA typical
LED 背光灯	LED indicators	12Vdc or 24Vdc 50,000 Hour life nominal
输出信号	Outputs	CAN J1939, PWM Output (Open Drain)
解析率	Resolution	12 bit
精度	Accuracy	Max 2.0% FS
过压保护	Over-voltage proof	yes
电源反接保护	Reverse polarity protection	yes

环境测试 Environmental specifications

工作温度	Operating temp. range	-40°C~85°C
储存温度	Storage temp. range	-50°C~85°C
防护等级	IP Class	IP67 for electronics
振动测试	Vibration	20g
机械冲击	Mechanical Shock	50g
电磁兼容性	EMI	100V/m
静电	ESD	±8kV (contact discharge)±15kV (air discharge)

➤ 外形&安装尺寸 Mechanical Dimensions(mm)



➤ 配件规格参数 Accessories specifications

名称 Name	图片 PIC	指标 Index	数据 Data	零件号 Part number
Push Button Switch 按钮开关		Type 类型	SPDT	PBS-23- BK(black), RD(red), YL(yellow), GR(green), BL(blue), WH(white), OR(orange)
		Work principle 工作原理	Contacts,silver 触点,银	
		Action 动作	Momentary 复位	
		Total travel 行程	1.524mm nominal	
		Operating force 操作力	1.6±0.15mm	
		Mechanical life 机械寿命	1 million cycles100 万次	
		Electrical life 电气寿命	1A@32 VDC resistive (100,000 cycles) 5A@32 VDC resistive (25,000 cycles) 3A@32 VDC resistive (25,000 cycles)	
		Ingres protection 防护等级	IP68	
		Operating temperature 工作温度	-40~85°C	

➤ **编号规则Product Code Reference**

T80	-	3	-	D	-	0
底座系列 <i>Base Family Name</i> T80		档位 <i>Tap position</i> 3- 三档 3-pos 4- 四档 4-pos 5- 五档 5-pos 6- 六档 6-pos		机械锁止 <i>Mechanical Detnet</i> D- yes N- no		弹簧复中位 <i>Spring return to centre</i> 0- No spring return 1- Standard spring force 1- Heavy spring force 2- Ultra high spring force
CJ	-	1	-	G300	-	00
信号输出形式 <i>Output</i> CJ- CAN J1939 CO- CAN open		档位信号输出形式 <i>Output on postions</i> 1- PWM		上端系列 <i>Grip Type</i> G300		其它订制信息 <i>Other Customized Details</i> 00

➤ **应用Applications**

适用于露天矿卡及巷道运矿卡车。

It suits for various of surface and underground mining trucks.

