LT20 Series Single Axis Joystick

Product Features

- Single-axis forward and backward directional or single directional operated.
- Friction lock or spring return.
- Center and start (end) position mechanical lock optional.
- Hall and potentiometer is selectable.
- Microswitch optional (maximum 10A@30Vdc).
- A variety of handle models can be configured.

Application

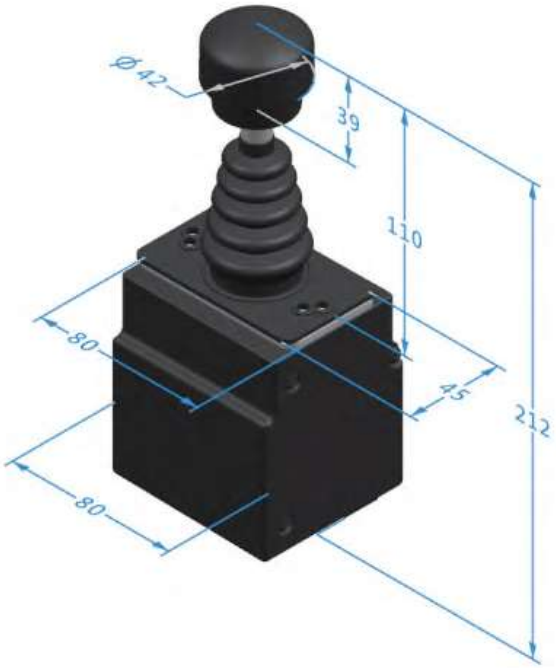
Typical application on various electro-hydraulic control system of engineering vehicles sand other electrical control system.

Technical Information

Electrical Data	
Potentiometer	
Power supply Resistance	<36Vdc
Resistance	2KΩ, 5KΩ, 10KΩ
Center angle	±3°
Maximum dissipation	0.2W
Hall	
Power supply	5±0.5Vdc
Supply current	<11mA (Setting Power supply)
Maximum allowable overload voltage	20Vdc
Reverse maximum allowance voltage	-10Vdc
Output linearity tolerance	<±0.2V
With electronic amplifier	
Supply voltage	18~36Vdc (U 21~U 25) 9~36Vdc (I 21~I 22)
Current consumption	<20mA
Maximum output curren	10mA(Standard power supply)
Microswitch	
Load capacity	10A@30Vdc (Resistive load))
Expecting life	5 million times (Mechanical) 200 thousand times (Electrical))
Insulation resistance	>100MQ (500Vdc Insulating-resistance)
Breakout angle	±5°

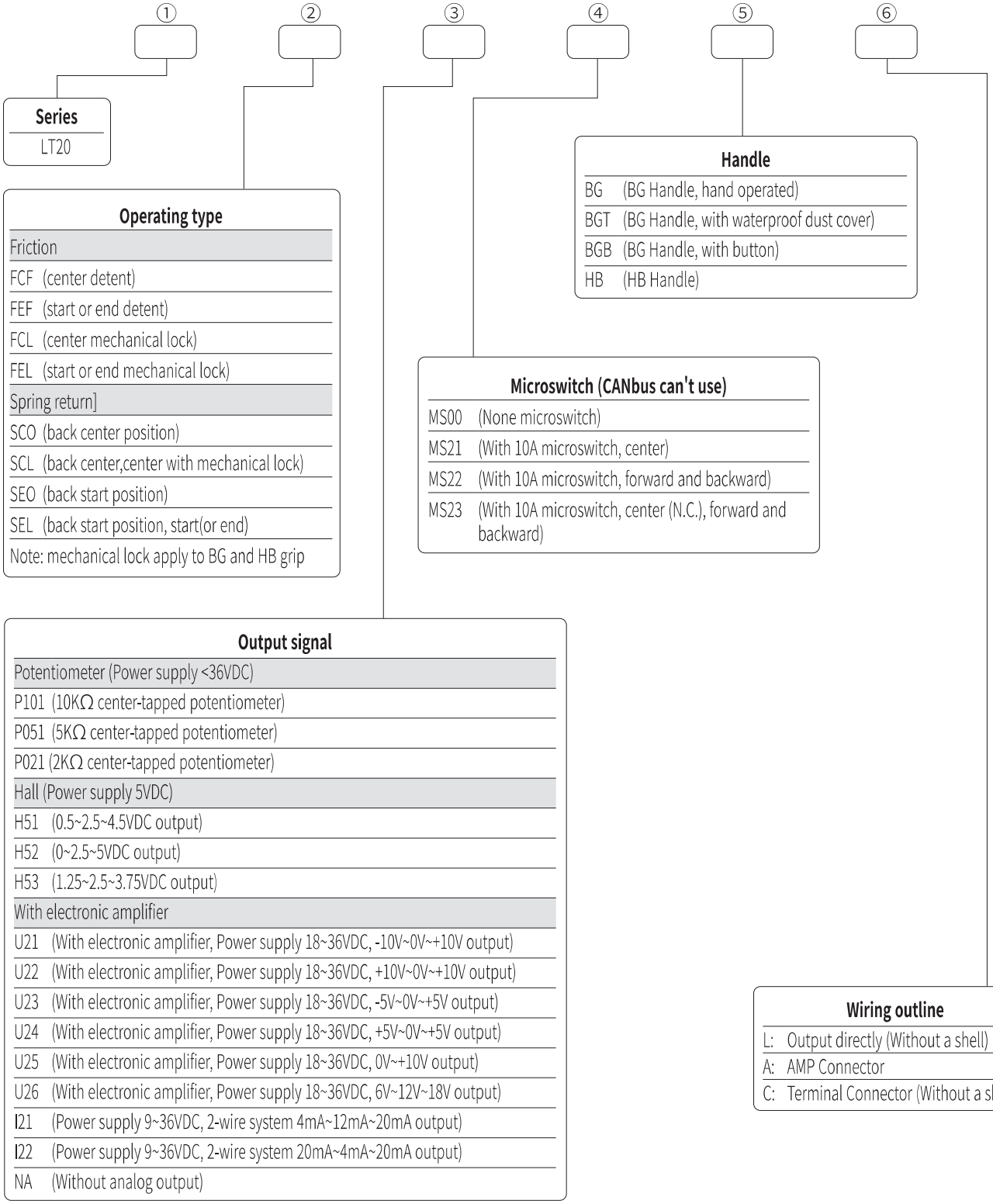
Environmental data	
Operating Temperature	-30°C~+70°C
Storage Temperature	-40°C~+85°C
Protection level	IP65 (Above the Panel)

Dimensions

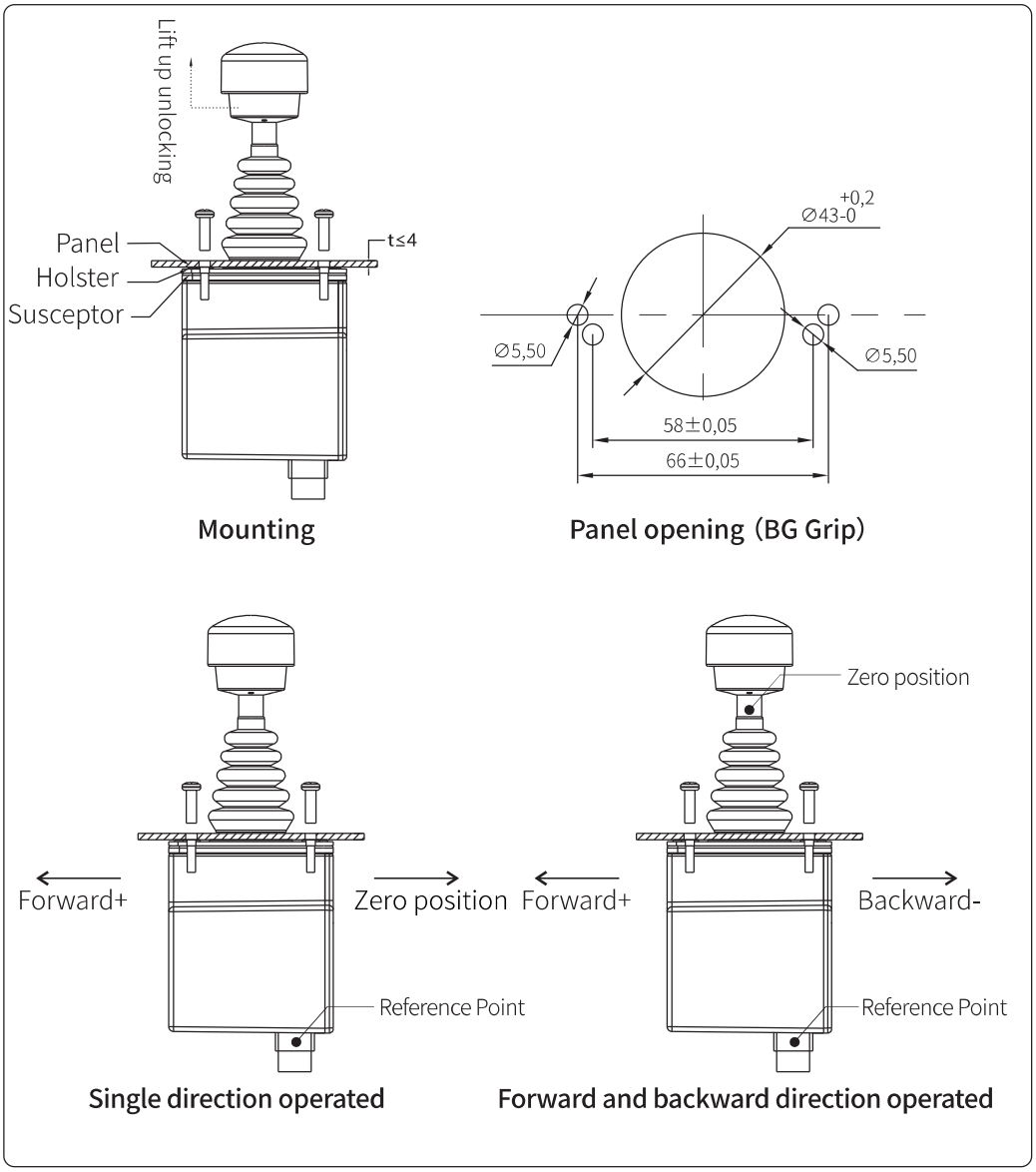


Mechanical features	
Travel angle	±37.5°or 75°(single direction)
Operating type	Spring return or friction
Breakout force	8N (spring) 16N (friction)
Operating force(max)	18N (spring) 16N (friction)
Maximum allowable force	> 260N
Expecting life	>1 million cycles(potentiometer) >5million cycles (hall)
Weight	500g (without handle)

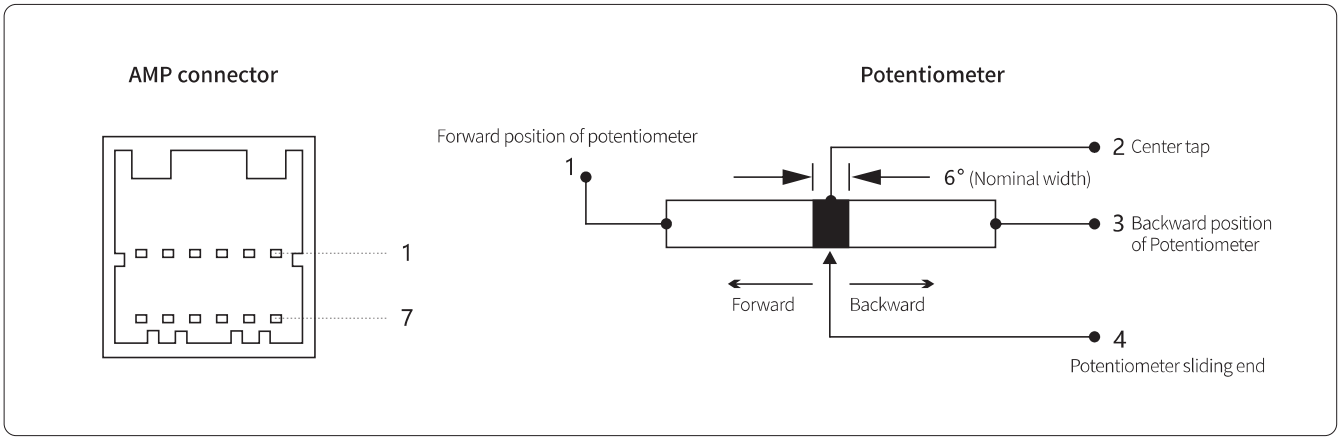
Product Configuration



Product Installation



Electrical Connections



Pin	Potentiometer	Hall	With elctrical amplifier of output voltage	With electrical amplifier of output current
1	Potentiometer forward terminal	5VDC	Power supply	
2	Potentiometer center tap	NA	GND	
3	Potentiometer backward terminal	GND	Output positive (+)	NA
4	Potentiometer sliding end	Output	Output negative (-)	NA
5	Directional switch forward (N.O.) Start position switch of single direction (N.O.)	Directional switch forward (N.O.) Start position switch of single direction (N.O.)	Directional switch forward (N.O.) Start position switch of single direction (N.O.)	Directional switch forward (N.O.) Start position switch of single direction (N.O.)
6	Forward directional switch common terminal Common terminal of start position	Forward directional switch common terminal Common terminal of start position	Forward directional switch common terminal Common terminal of start position	Forward directional switch common terminal Common terminal of start position
7	Directional switch back ward (N.O.) Single direction (N/A)	Directional switch backward (N.O.) Single direction (N/A)	Directional switch backward (N.O.) Single direction (N/A)	Directional switch backward (N.O.) Single direction (N/A)
8	Backward directional common terminal Single direction (N/A)	Backward directional common terminal Single direction (N/A)	Backward directional common terminal Single direction (N/A)	Backward directional common terminal Single direction (N/A)
9	Rocker left directional (N.O.)	Rocker left directional (N.O.)	Rocker left directional (N.O.)	Rocker left directional (N.O.)
10	Handle of top switch common terminal	Handle of top switch common terminal	Handle of top switch common terminal	Handle of top switch common terminal
11	Rocker right directional (N.O.)	Rocker right directional (N.O.)	Rocker right directional (N.O.)	Rocker right directional (N.O.)