Precision Wirewound Potentiometer DP18 St Ff/Rs

With or without spring reset in central position or left-side fixing

ALTMANN Potentiometer

The potentiometer DP18 has a reinforced glass fibre plastic housing of high thermal resistance and hardness.

It can be additionally encapsulated and then achieves the protection class IP67.

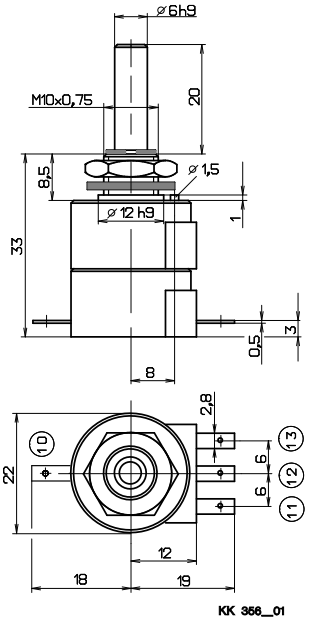
The potentiometer can be supplied with a shaft led through on the rear side and is also available as multiple version (stackable).

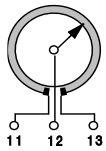
Mechanical data

1.1	Housing	Reinforced glass fibre plastic
1.2	Shaft	Stainless steel ø6^{h9}
1.3	Bearing	Maintenance-free sliding bearing
1.4	Resistor element	Precision wire winding
1.5	Slider tap / wiper tap	Noble metal, single
1.6	Protection class	IP60
1.7	Type of connection	Blade terminal DIN 46342
1.8	Mounted by	Central fixing M10x0,75
1.9	Mechanical rotation angle	see table
1.10	Electrical rotation angle	see table
1.11	Rotation speed	max. 60 rpm
1.12	Torque	Reset 5 Ncm on average
1.13	Rotation load life	1x10^5 slider path (360°)
1.14	End-stop strength	50 Ncm

Electrical data

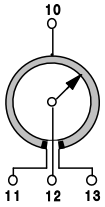
2.1	Resistance values, standard	1 , 2 , 5 , 10 K-Ohm
2.2	Resistance values, max.possible	see table
2.3	Resistance tolerance	± 5 %
2.4	Resolution at 5 K-Ohm / 330°	0,15 %
2.5	Max. starting / end resistance	1 % (of overall resistance => 1K)
2.6	Linearity tolerance	± 1 %
2.7	Insulation resistance	20 M-Ohm
2.8	Test voltage	500 V, 50 Hz
2.9	Operating voltage	max. 50 V
2.10	Power rating	max. 1,5 Watt
2.11	Slider load current	1mA (max. load life)
2.12	Temperature range	-20 °C … +100 °C
2.13	Temperature coefficient	20 ppm/°C





Terminal plan	
Point	Function
11	winding
12	slider
13	winding

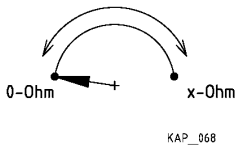
Symmetry of the Dead Zone:
Resistance difference of the halfs max.1 % of total resistance



Terminal plan	
Point	Function
10	centre tap
11	winding
12	slider
13	winding

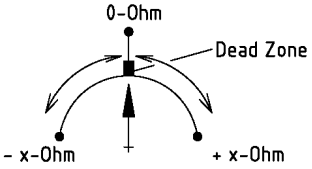
Spring - Function

Left-side fixing



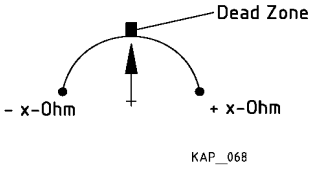
Spring reset to **Left-side fixing**

Central Position with Dead Zone and centre tap



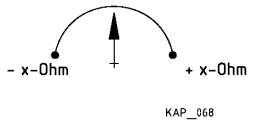
Spring reset to **Central Position** with Dead Zone

Central Position with Dead Zone without centre tap



Spring reset to **Central Position** with Dead Zone

Central Position without Dead Zone



Spring reset to **Central Position** without Dead Zone

Type	Options			
	Spring reset	Electrical rotation angle	Mechanical rotation angle*1	Resistance values max.
DP18 St Ff 2x60°	.Central Position	2x60° ±1°	2x62° ±2°	10 K-Ohm
DP18 St Ff 2x90°		2x90° ±1°	2x92° ±2°	20 K-Ohm
DP18 St Ff 120°	Left-side fixing	120° ±1°	124° +4°	10 K-Ohm
DP18 St Ff 180°		180° ±1°	184° +4°	20 K-Ohm
DP18 D2 St Ff 2x60°	Central Position D2 (Tandem)	2x60° ±1°	2x62° ±2°	10 K-Ohm
DP18 D2 St Ff 2x90°		2 90° ±1°	2x92° ±2°	20 K-Ohm
DP18 D2 St Ff 120°	Left-side fixing D2 (Tandem)	120° ±1°	124° +4°	10 K-Ohm
DP18 St Rs	Centre locking (without spring reset max. 2x165° ±1° / 2x165° +1°)			
DP18 St Rs	10-point Lock-in position 270° electr. angle / 330° mechanical angle			
DP18 D2 Rs	Centre locking (without spring reset max. 2x165° ±1° / 2x165° +1°)			

Option
Centre tap with Dead Zone +0,5° / -0,5°
Centre tap with Dead Zone +1,5° / -1,5°
Centre tap with Dead Zone +3° / -3°
Centre tap with Dead Zone +6° / -6°

*1 2° overflow

* Potentiometer housing encapsulated, protection class IP65/67 connections are free.
Completely encapsulated potentiometers are supplied with cable and protective housing.

Options

Centre tap
Resistance tolerance ± 3 %
Resistance tolerance ± 1 %
Shaft: special length, led through on the rear side
Protection class upto IP67, shaft-side
Protection class upto IP67* complete

Accessories

Protective housing
Scale 0 … 100%
Rotary knop
Connecting wires
Limit switch

Further types

Print connection
Needle bearing

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