



elap HPS

LINEAR WIRE POTENTIOMETER

HPS-M • HPS-S • HPS-L

INSTRUCTION MANUAL

SPECIFICATIONS

- Stroke: 250 ÷ 8000 mm
- Resistance 5 KOhm $\pm 10\%$
- Linearity $\pm 0,25\%$ ($\pm 0,3\%$ for analogue output types)
- Speed: 0.5/1 m/sec. (see the table)
- Spring max torque: strokes ≤ 1250 mm = 600 g
- Strokes from 1.5 to 4 m = 1000 g - Over: 2200 g

- SUS304 stainless steel wire covered with nylon $\varnothing 0,6/1$ mm – max load 16/60 Kg. (see the table)
- Operating temperature $-20 \div 70^\circ\text{C}$ ($0 \div 70^\circ\text{C}$ for analogue output types) - Relative moisture 35%-90%
- Connections: cable 1 m long (HPS-S 0.5 m)
- Protection degree IP64 (HPS-S: IP50)

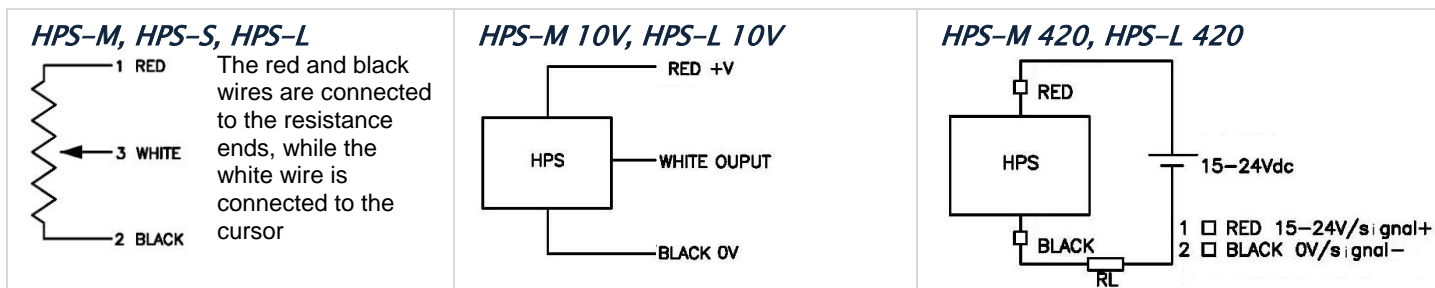
Type	Stroke mm	Power	Speed	Wire \varnothing /Max load	Type	Stroke mm	Power	Speed	Wire \varnothing /Max load
HPS-M-05	500	1W	1 m/sec	0.7 mm/ 23 Kg.	HPS-S-025	250	1W	0.5 m/sec	0.6 mm/ 16 Kg.
HPS-M-075	750	1W	1 m/sec	0.7 mm/ 23 Kg.	HPS-S-05	500	1W	0.5 m/sec	0.6 mm/ 16 Kg.
HPS-M-10	1000	2W	1 m/sec	0.7 mm/ 23 Kg.	HPS-S-10	1000	2W	0.5 m/sec	0.6 mm/ 16 Kg.
HPS-M-125	1250	2W	1 m/sec	0.7 mm/ 23 Kg.	HPS-L-30	3000	2W	0.6 m/sec	1 mm/ 60 Kg.
HPS-M-15	1500	2W	1 m/sec	0.7 mm/ 23 Kg.	HPS-L-40	4000	2W	0.6 m/sec	1 mm/ 60 Kg.
HPS-M-20	2000	2W	1 m/sec	0.7 mm/ 23 Kg.	HPS-L-50	5000	2W	0.6 m/sec	1 mm/ 60 Kg.
HPS-M-30	3000	2W	1 m/sec	0.7 mm/ 23 Kg.	HPS-L-60	6000	2W	0.6 m/sec	1 mm/ 60 Kg.
HPS-M-40	4000	2W	1 m/sec	0.7 mm/ 23 Kg.	HPS-L-80	8000	2W	0.6 m/sec	1 mm/ 60 Kg.

INSTALLATION

- Make sure that the distance to be run by the wire does not exceed the transducer nominal stroke; stretching the wire over its nominal stroke damages the transducer seriously, and causes the decay of the guarantee right.
- Use 4 M3 screws with the following specifications to fix the potentiometer: **HPS-M** screws M3x8 - **HLS-S** screws M3x6 – **HLS-L** screws M4x10
- The wire must run out of the bushing without angle to obtain the best tolerance in measurements.
- It is possible to hook the fixing end of the wire at a steady point and move the transducer body instead of the wire.
- If the application is not a linear one, use a pulley with a proper diameter to smooth the rotation and avoid damaging the wire.
- If the product works in a severe environment, such as in presence of oil, water, heavy dust, iron chipping or any powder which can damage the wire, apply a protective cover.

CONNECTIONS

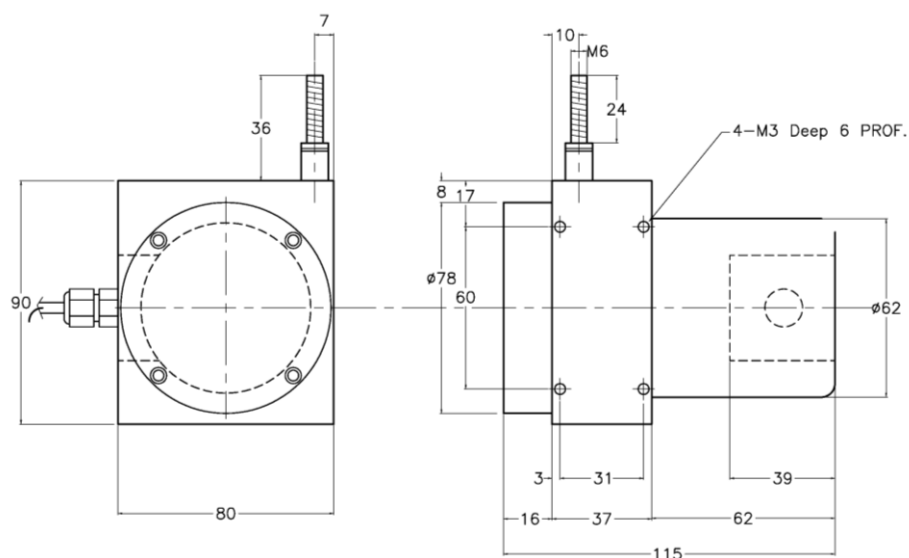
Carry out the connections as shown in the diagram hereunder. The cable shield is not connected inside the transducer.



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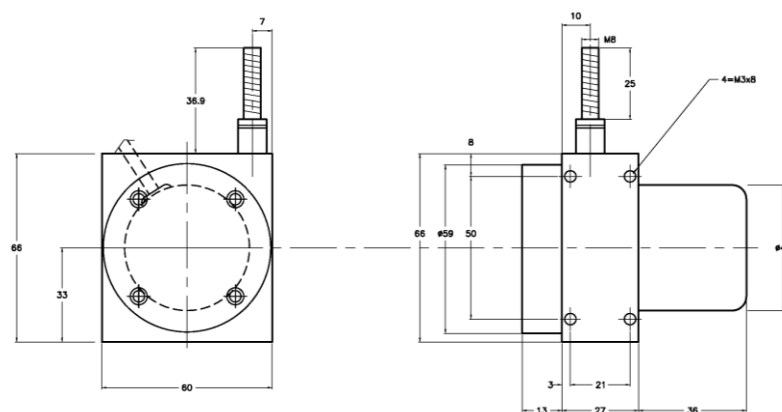
DIMENSIONS
Transducer HPS-M

Dis.M2121



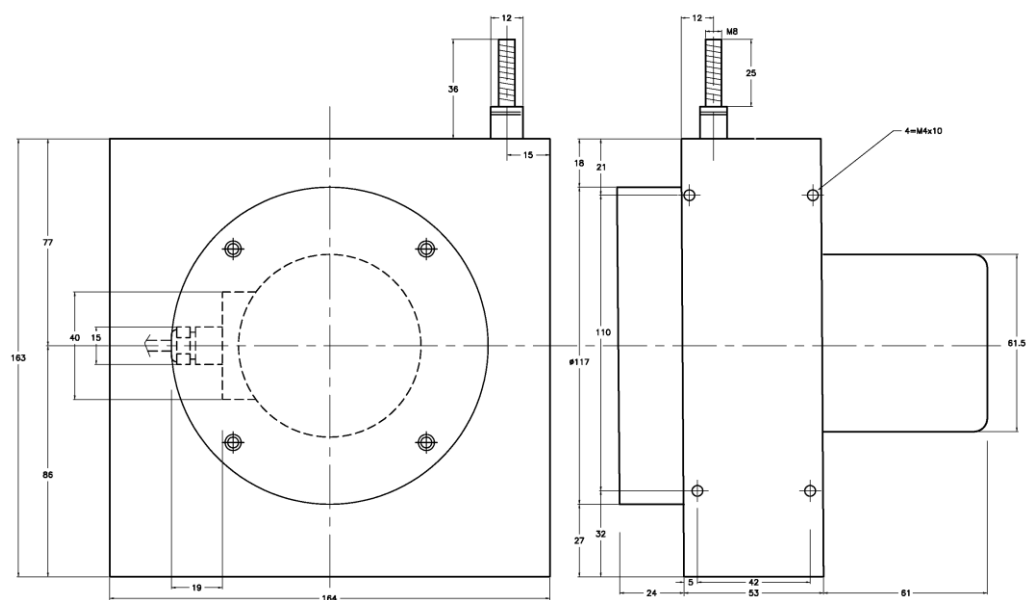
Transducer HPS-S

Dis.M1302



Transducer HPS-L

Dis.M1301



Further information at URL: <https://www.elap.it/wire-transducers/wire-potentiometer-hps/>



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