

Single-Turn Continuous Rotation Analog Displacement Sensors



FEATURES

- Conductive plastic potentiometer technology, infinite resolution
- Servo mount anodized light alloy housing
- Precious metal contacts
- Stainless steel shaft and bearings
- Applicable standards: NFC 93255, MIL R39023

QUICK REFERENCE DATA

Sensor type	ROTATIONAL, conductive plastic
Output type	Output by turrets
Market appliance	Avionics, military
Dimensions	Ø 36, Ø 44, Ø 50, Ø 76

ELECTRICAL SPECIFICATIONS

PARAMETER	HR36	HR44	H44	H50	H76
Theoretical electrical travel (TET)	350° ± 3°	350° ± 3°	350° ± 3°	350° ± 2°	350° ± 1°
Standard linearity (≤)	± 0.5 %	± 0.5 %	± 0.5 %	± 0.25 %	± 0.1 %
Optional linearity (≤)	± 0.25 %, ± 0.1 %, ± 0.05 %	± 0.25 %, ± 0.1 %, ± 0.05 %	± 0.25 %, ± 0.1 %, ± 0.05 %	± 0.1 %, ± 0.05 %, ± 0.03 %	± 0.05 %, ± 0.02 %
Total resistance range (E3)	1 kΩ to 47 kΩ	1 kΩ to 47 kΩ	1 kΩ to 47 kΩ	1 kΩ to 100 kΩ	1 kΩ to 220 kΩ
Tolerance on R _n	± 10 %, ± 5 % optional				
Output smoothness	< 0.1 %				
Power rating at 70 °C	2 W	2.5 W	2.5 W	3 W	4 W
Temperature coefficient	-300 ± 300 ppm/°C				
Wiper current	≤ 1 mA				
Recommended load impedance	≥ 1000 R _n				
Insulation resistance	≥ 10 GΩ at 500 V _{DC}				
Dielectric strength	1000 V _{RMS} , 50 Hz, 1 min				

MECHANICAL SPECIFICATIONS

PARAMETER		HR36	HR44	H44	H50	H76
Size		15	18	18	20	30
Running and starting torque (cN cm)	first stage	20	20	20	25	35
	additional stage	18	18	18	22	30
Moment of inertia (g cm ²)	first stage	≤ 2.2	≤ 2.6	≤ 6	≤ 8	≤ 20
	additional stage	0.6	≤ 0.6	≤ 5	≤ 6	≤ 17
Weight (g)	first stage	50	80	100	100	230
	additional stage	12	12	50	55	80
Protection class		IP50				

PERFORMANCE

PARAMETER	
Life	25M cycles
Temperature range	-55 °C to +125 °C
Rotation speed	600 rpm

Note

- Nothing stated herein shall be construed as a guarantee of quality or durability.

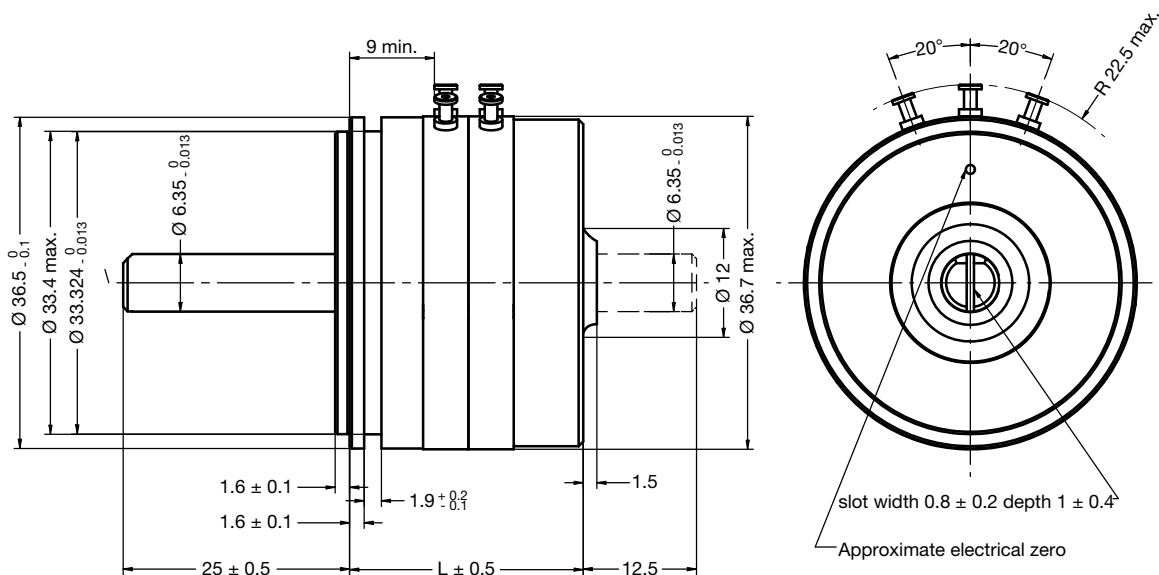


ORDERING INFORMATION / DESCRIPTION

POHR44	4	4.7K	F
SENSOR TYPE (POHR36, POHR44, POTH44, POTH50, POTH76)	NUMBER OF STAGES IF > 1 (Maximum number of stages: see Dimensions)	OHMIC VALUE (R_n)	WIRE OUTPUT (only on HR44 and H44)	SPECIAL FEATURE OR OPTION (Plain language)

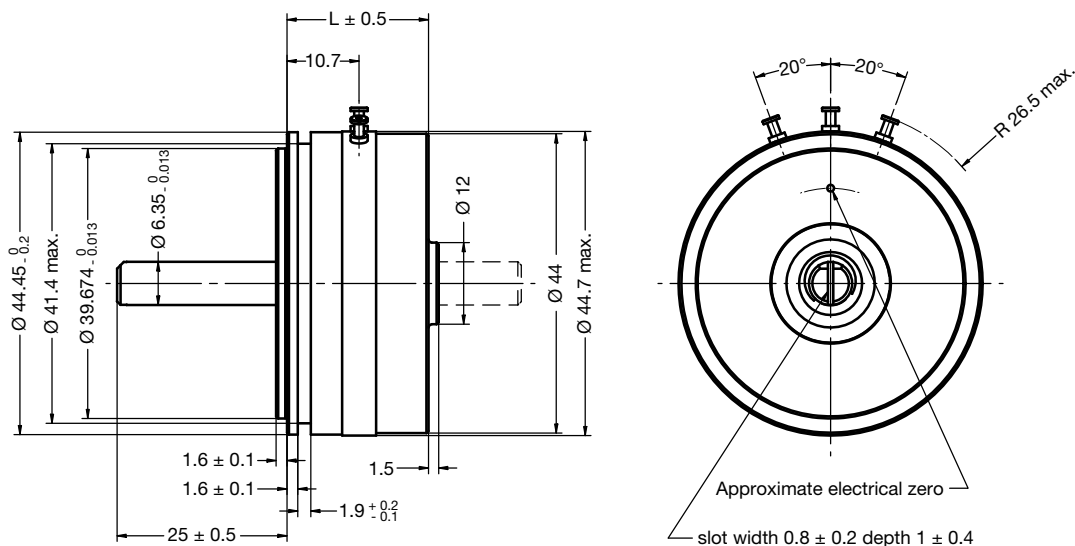
DIMENSIONS in millimeters

HR36



Number of cups:	1	2	3	4	5	6	7	8
L:	21	26	31	36	41	46	51	56

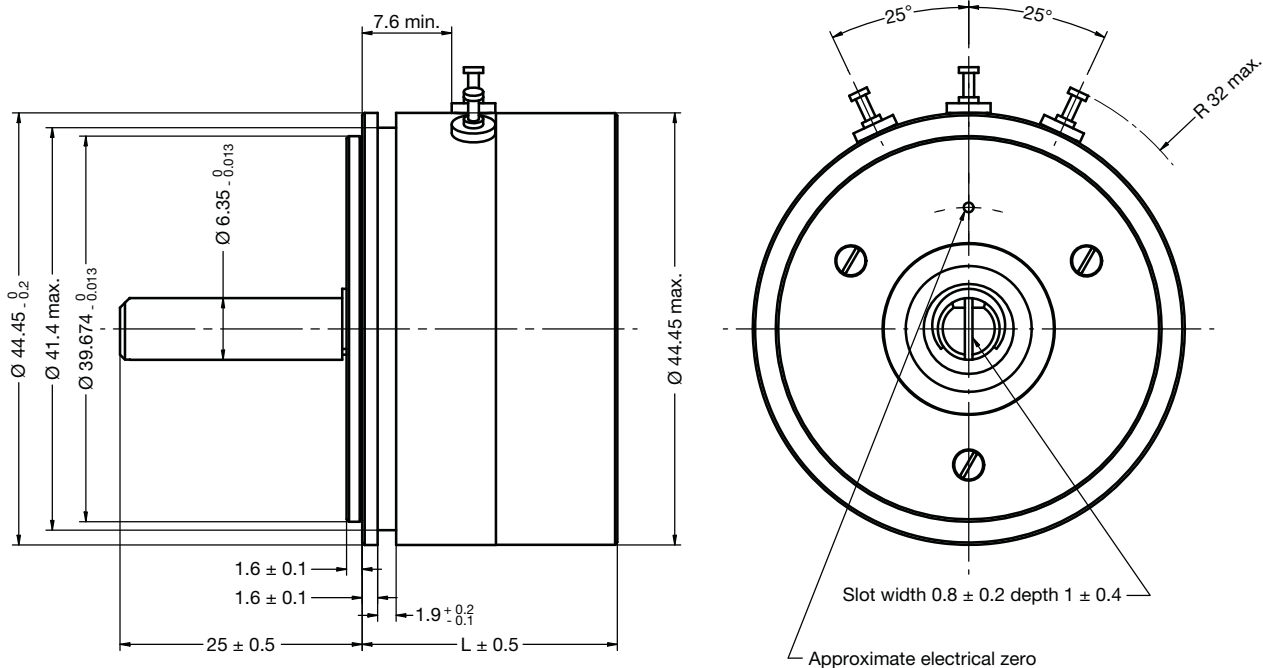
HR44



Number of cups:	1	2	3	4	5	6	7	8
L:	21	26	31	36	41	46	51	56

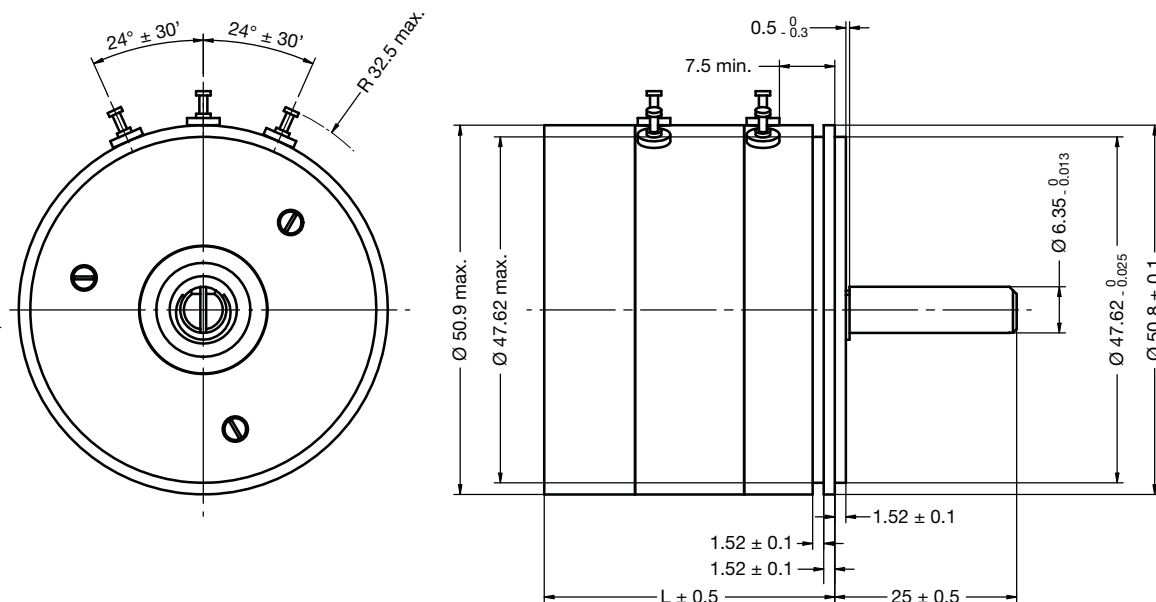
DIMENSIONS in millimeters

H44



Number of cups:	1	2	3	4
L:	26.5	42	57.5	73

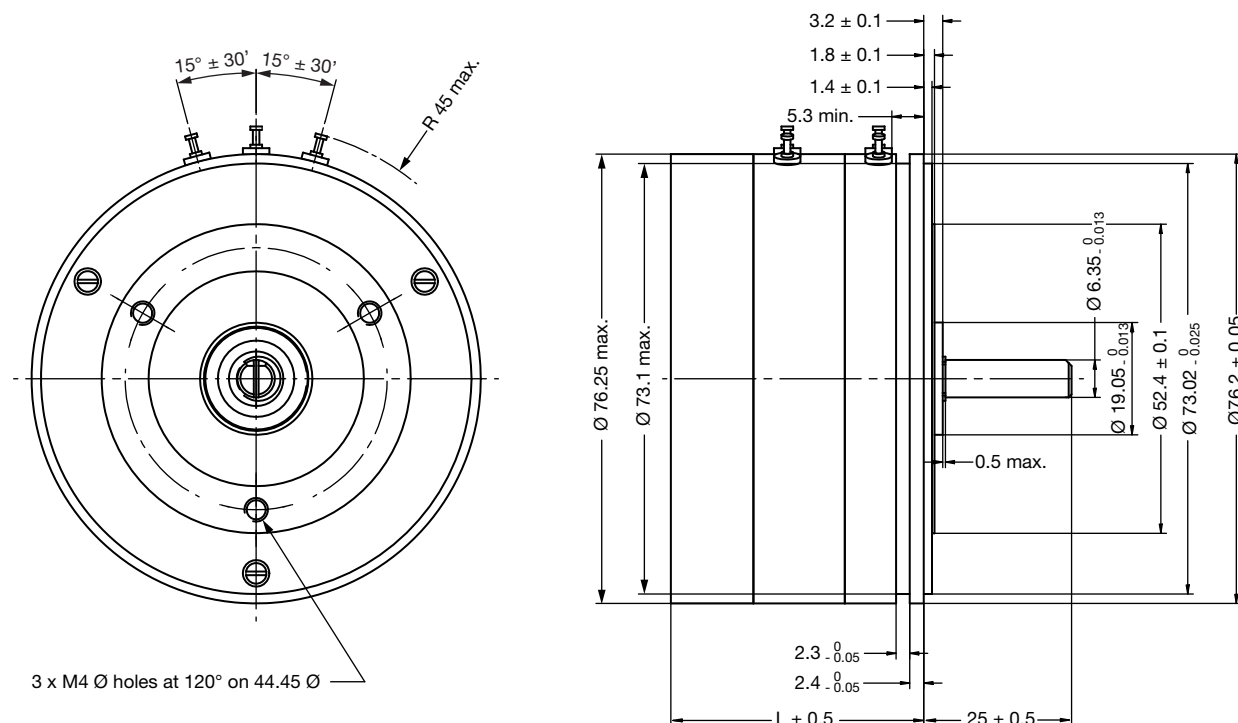
H50



Number of cups:	1	2	3	4	5
L:	25	40	55	70	85

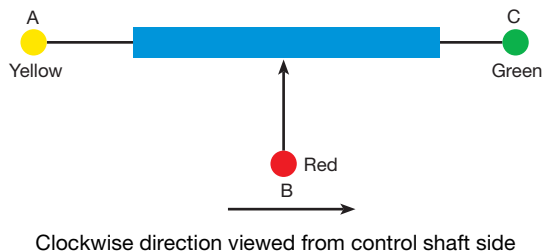
DIMENSIONS in millimeters

H76

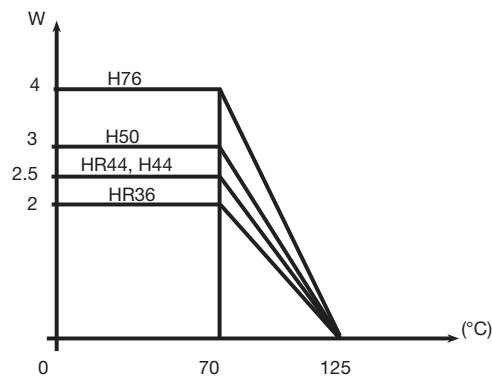


Number of cups:	1	2	3	4	5
L:	27.5	43	58.5	74	89.5

ELECTRICAL DIAGRAM



POWER RATING CHART



OPTIONS (on request)

- Other ohmic values
- Other tolerances on R_n (see “Electrical Specifications” table)
- Other linearities (see “Electrical Specifications” table)
- Other theoretical electrical travel
- Connectors (center tap)
- Wire outputs (only on HR44 and H44)
- Through shaft



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