

**Wire-Wound Element - Oil Filled - Heavy Duty**



- High Precision
- 30 to 300mm
- Long Life



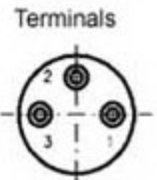
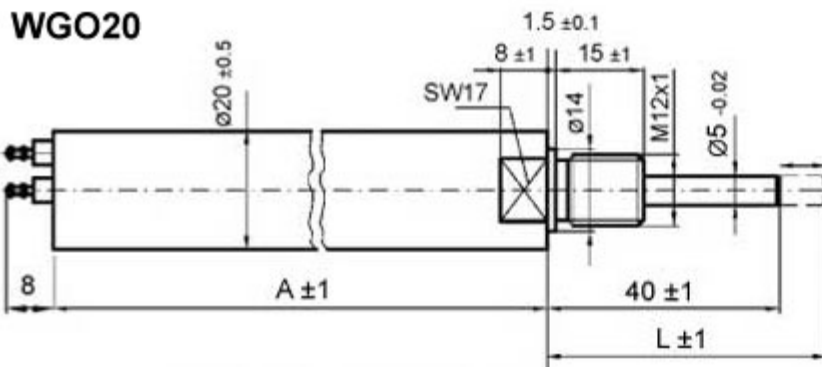
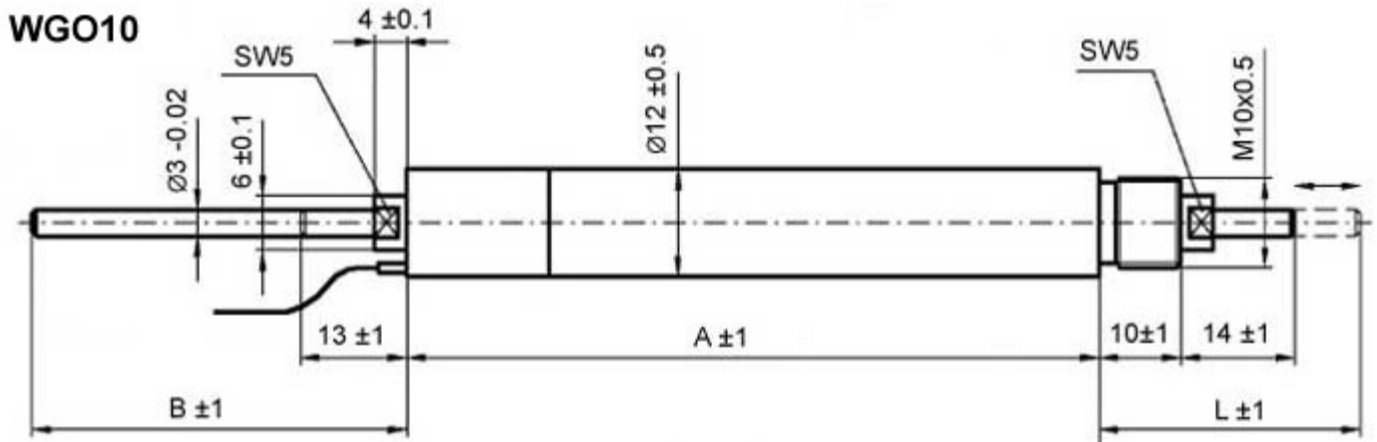
Specifically designed for operation in the worst environmental conditions such as salt, moisture, organic gas, etc. Element is hermetically sealed and bathed in a special mineral oil that contains no organic substances, such as PCB. Ideal for the marine industry, pits and mines, forestry machinery, chemical factories, etc.

Electrical Specifications	WGO10 30	WGO10 50	WGO10 100	WGO20 50	WGO20 100	WGO20 200	WGO20 300
Electrical Stroke (mm)	30	50	100	50	100	200	300
Resistance Value (Kohms)	0.2 ~ 5	0.05 ~ 10	0.05 ~ 20	0.05 ~ 10	0.05 ~ 20	0.1 ~ 50	
Resistance Tolerance	±5% (±3% opt.)						
Linearity Tolerance (std.)	±1%	±0.7%	±0.5%	±0.7%	±0.5%		
Linearity Tolerance (best)	±0.5%	±0.4%	±0.25%	±0.4%	±0.25%		
Max. Voltage (V)	100			200			
End Resistance	0.5% or 1 ohm, whichever is greater						
Power @ 40° (W)	1	1.5	3	1.5	3	5	6
Insulation Resistance	>100 Mohm @ 1000 VDC						
Dielectric Strength	1 minute @ 1000 VAC						
Noise	<100 ohm ENR						
Maximum Wiper Current	40mA						
Mechanical Specifications	WGO10 30	WGO10 50	WGO10 100	WGO20 50	WGO20 100	WGO20 200	WGO20 300
Mechanical Stroke (mm)	32	52	102	53	103	203	303
Maximum Operating Friction	6 (N)			15 (N)			
Stopper Strength	50			90			
Life Expectancy	1 million			4 million			
Weight (g)	40	50	60	100	150	180	220
Environmental Specifications							
Operating Temperature	-20°C to +60°C						
Storage Temperature	-50°C to +85°C						
IP Protection Grade	IP55						
Standard	per MIL-R-12934						
Materials							
Housing	Aluminum						
Shaft	Stainless steel						

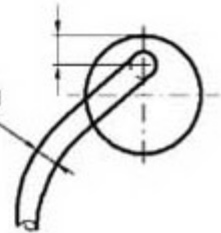
## Resolution Chart

Resist. Value (ohms)	Resolution (%)						Max. Current Through Element (mA)						Temp. Coefficient ppm/k
	WGO 1030	WGO 1050	WGO 10100	WGO 2050	WGO 20100	WGO 20200	WGO 1030	WGO 1050	WGO 10100	WGO 2050	WGO 20100	WGO 20200	
20	0.59	-	-	-	-	-	220	-	-	-	-	-	80
50	0.41	0.28	0.18	0.33	0.21	-	140	170	244	170	244	-	80
100	0.45	0.23	0.14	0.26	0.16	0.105	100	122	173	122	173	273	80
200	0.35	0.25	0.12	0.21	0.13	0.084	70	86	122	86	122	158	80
500	0.26	0.19	0.11	0.21	0.135	0.061	44	54	77	54	77	100	80
1k	0.21	0.15	0.095	0.17	0.110	0.067	31	38	55	38	55	70	20
2k	0.17	0.12	0.077	0.135	0.084	0.054	22	27	38	27	38	50	20
5k	0.20	0.087	0.055	0.100	0.062	0.040	14	17	24	17	24	31	20
10k	-	0.069	0.043	0.080	0.050	0.031	-	12	17	12	17	22	20
20k	-	-	0.034	-	0.040	0.025	-	-	12	-	12	16	20
50k	-	-	-	-	-	0.018	-	-	-	-	-	10	20

## Dimensions (mm)



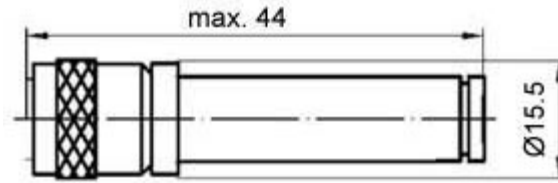
Cable Version  
3x0.5<sup>2</sup> -  $\varnothing 4.5$  - 2m long



## Dimension Chart

Model	WGO10			WGO20			
Stroke Length	<b>30</b>	<b>50</b>	<b>100</b>	<b>50</b>	<b>100</b>	<b>200</b>	<b>300</b>
A ( $\pm 1$ mm)	85	105	155	135	185	285	385
B ( $\pm 1$ mm)	46	66	116	-	-	-	-
L ( $\pm 1$ mm)	44	64	114	90	140	240	340

Connector for WG020: Waterproof type for wire diameters of  $\text{\O}6.3\text{mm}$  max.



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