

Type series R10 / R20  
R40 / R80

### Cement coated wirewound variable resistors

IP  
00

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size	<b>R10</b>	<b>R20</b>	<b>R40</b>	<b>R80</b>
production range in ohm $\pm 10\%$	1,5-10 k	2,2-15 k	3,9-27 k	1-33 k
typical power in W at 40° C ambient temperature	16	30	50	80
connections, fast-on (solderable) or on request screw connections M3 in special design(only R40,R80)	4,8 x 0,8			
rotation angle, start to stop	290°	290°	300°	293°
rotation angle over winding	272°	275°	285°	278°
line of resistance	linear			
slider	silver contact			
excess temperature by nominal power	ca. 260° C			
test voltage in kV, 50 Hz	2	2	2,5	2,5
weight approx. g	50	80	150	200

basic construction standard shaft length measured from mounting plate is 35 mm	<b>dim.</b>	<b>R10</b>	<b>R20</b>	<b>R40</b>	<b>R80</b>	
available special shaft lengths 18, 21, 24, 40 mm		A	34	42	54	68
shaft length fitting to switches D30 and D41: 21 mm		B	28	30	40	50
		C	40	48	60	75
		D				30
		E				M4
12M-0802-00-001						

with attached micro switch with solder connections change over contact 250 V~, 4 A (in special design fast-on connectors 6,3x0,8)	<b>dim.</b>	<b>R10</b>	<b>R20</b>	<b>R40</b>	<b>R80</b>	
Rxx ML1 1-pol. left (dim. B1) Rxx MR1 1-pol. right (dim. B1) Rxx ML2 2-pol. left (dim. B2) Rxx MR2 2-pol. right (dim. B2)		A	60	64	70	75
		B1	55	55	66	73
		B2	66	66	77	84
		C	40	48	60	80
		D	17	21	27	34
12M-0802-01-001						

in 2fold in-line configuration (on request also in 3, 4 or 5fold in-line configuration available)	<b>dim.</b>	<b>R10</b>	<b>R20</b>	<b>R40</b>	<b>R80</b>	
RZ.. configuration of 2 equal resistors on 1 shaft		A	34	42	54	68
example: 2 equal resistors (each R20), with equal ohmic values (each 1k): type: RZ20-2x1k		B	66	71	91	119
		C	40	48	60	80
12M-0802-00-001						



Type series R100 / R150  
R250 / R500

**Cement coated wirewound variable resistors**

IP 00	E
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size	R100	R150	R250	R500
production range in ohm $\pm$ 10%	1,2-39 k	1,5-47 k	1,8-47 k	3,3-10 k
typical power in W at 40° C ambient temperature	120	180	300	500
screw connections	M 4	M 4	M 4	M 5
rotation angle, start to stop	300°			
rotation angle, over winding	286°	286°	291°	290°
line of resistance	linear			
slider	silver-contact			carbon-
excess temperature by nominal power	approx. 285° C			
test voltage in kV, 50 Hz	2,5			
weight approx. g	500	600	1300	2700

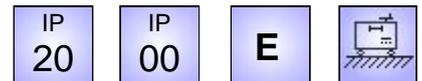
basic construction standard shaft length measured from mounting plate is 45 mm	dim.	R100	R150	R250	R500	
available special shaft lengths:  25, 33 mm  shaft length fitting to switches D57 and D70: 25 mm	<p>12M-0802-00-002</p>	A B C D E	86 82 98 36 M 4	86 80 98 60 M 4	142 80 153 80 M 5	198 98 210 80 M 5

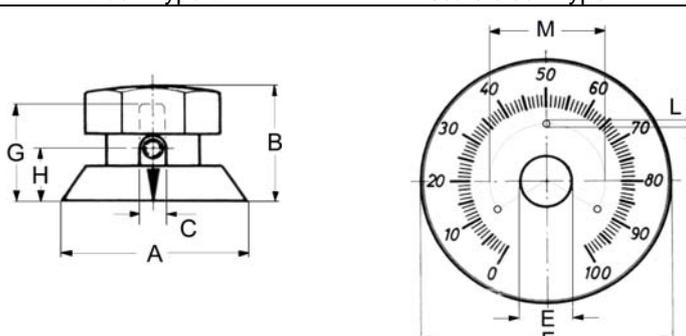
with attached micro switch with solder connections change over contact 250 V~, 4 A (in special design fast-on connectors 6,3x0,8)	dim.	R100	R150	R250	R500	
Rxxx ML1 1-pol. left (dim. B1) Rxxx MR1 1-pol. right (dim. B1) Rxxx ML2 2-pol. left (dim. B2) Rxxx MR2 2-pol. right (dim. B2)	<p>12M-0802-01-002</p>	A B1 B2 C	86 85 96 108	86 106 117 108	142 94 105 168	198 118 129 225

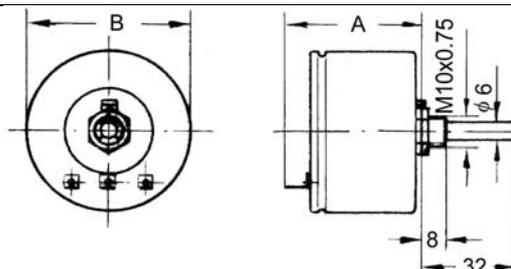
in 2fold in-line configuration (on request also in 3, 4 or 5fold in-line configuration available)	dim.	R100	R150	R250	R500	
RZ... configuration of 2 equal resistors on 1 shaft  example: 2 equal resistors (each R100), with different ohmic values (100 and 1k): type: RZ100-100/1k	<p>12M-0802-00-002</p>	A B C	86 132 108	86 172 108	142 166 168	198 215 225

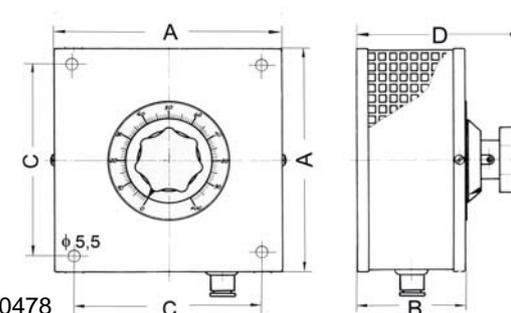
To type series R10 - R500

Enclosure, special designs, accessories



knob and scale disc for variable resistors			R10 R20	R40 R80	R100 R150	R250 R500
knob – type D	scale disc – type K	type D	30	41	57	70
		∅ A	31	41	57	70
		B	22	26	30	43
		∅ C	6	6	8	8
		G	16	19	27	27
		H	9	13	12	11
		type K	28	38	55	68
		∅ E	10,5	10,5	8,5	8,5
		∅ F	48	65	80	100
		∅ L	-	-	4,5	4,5
		∅ M	-	-	36	44/60

<u>type series RK....</u>	dim.	RK10 RK20	RK40		
variable resistors dustproof encapsulated, maximal load 0,5 x typical power, with push-on connections 4,8 x 0,8 (solderable)		A	53	59	
		B	57	71	

<u>type series RG...</u>	dim.	RG10 RG20 RG40	RG80 RG100 RG150	RG250	RG500	
variable resistor, integrated in enclosure, with adjusting knob and scale disc, degree of protection IP 20, connections at the resistor  maximal load 0,5 x typical power  12 M 0478		A	90	120	175	240
		B	60	100	100	110
		C	70	100	150	215
		D	88	132	132	155

<u>special designs and accessories</u>
<ul style="list-style-type: none"> <li>- zero position</li> <li>- locking device (only R10, R20, R40, R80, R100, R150)</li> <li>- screw driver slot (only R10, R20, R40, R80)</li> <li>- different shaft length</li> <li>- centre tap</li> <li>- reduced tolerance</li> <li>- sector winding (all sizes besides R10)</li> <li>- in laboratory version, please look at our list T400E</li> </ul>