

TYPE

# RDC 14

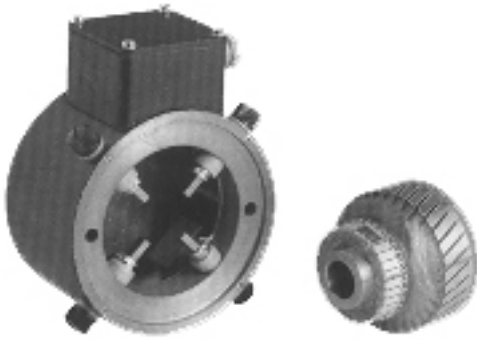


## DESTINATION

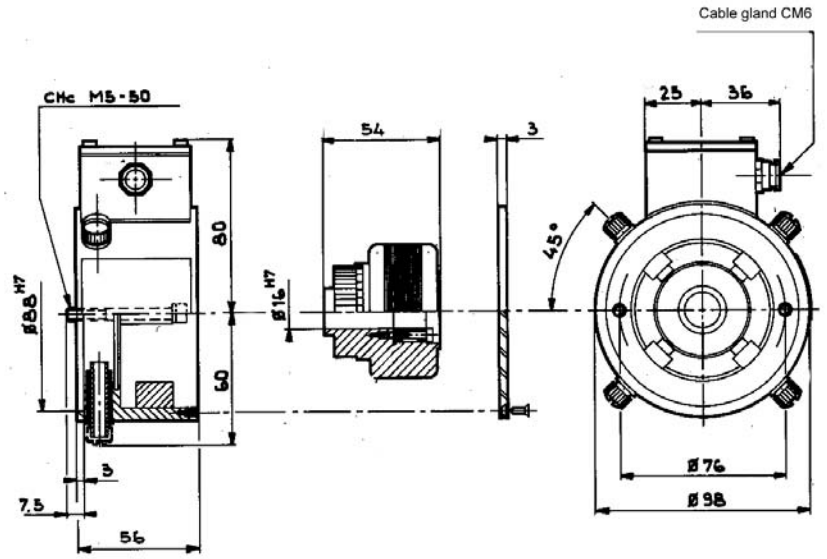
- Industrial applications
- Machine tools
- Robots

## DISCRIPTION

- Hollow shaft tachometer generator: rotor / stator set
- Permanent magnet excitation
- Sturdy machine
- Collector on mounting side
- Mounted on smooth shaft



Weight	kg	1,8
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## GENERAL DATA

Designation	Symbol	Unit	Value
Maximum speed (mechanical)	$n_m$	rpm	7500
Moment of inertia	J	kg cm <sup>2</sup>	1,8
No load driving torque	$M_r$	N. cm	$\leq 0,5$
Maximum E.M.F.	$E_m$	V	300
Maximum linearity error	$\Delta E$	% $E_T$	$\leq 0,15$
Overall ripple rate (peak to peak)	$\Delta E_C$	% $E_C$	$\leq 0,6$
Rotation harmonics (f = 2 p. n.)	$\Delta E_P$	% $E_C$	$\leq 0,05$
Slot harmonics (f = Z. n.)	$\Delta E_Z$	% $E_C$	$\leq 0,55$
Calibration precision	$\Delta E_O$	% $E_{T0}$	$\pm 2,0$
E.M.F. temperature drift - not compensated - compensated	$\Delta E_e$	% /°C	0,005
Time constant	$C_t$	ms	0,7
*Filter: Time constant Load current Speed	RF x CF $I_C$ n	ms mA rpm	0,1 1,5 3000

Construction Details	
Number of poles	4
Number of armature slots	33
Number of collector blades	33
Insulation class	B (IEC 34-1)
Operating temperature	-20° - 110 °C
Climatic protection	C <sub>a</sub> (IEC 68-1)
Protection degree	IP 44 (IEC 34-5)**
Direction of rotation	Reversible
Excitation	Permanent magnets Alnico

\* Filter-connection diagram see following pages  
 \*\* The protection degree refers to a mounted machine

Rev.: 02

We reserve the right to modify technical features in the interest of technical advance.

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**Mechanical options**

Armature bore Ø d (mm)			Motor centring end frame Ø D (mm)			Armature clamping device		
Standard	Max.	Min.	Standard					
16 <sup>H7</sup>	16	14	88					Expanding device

**Options**

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**Available options**

- On request

**Markings and Polarity of Terminals (cables) for counter clockwise rotation viewing the mounting face**

1 collector	2 collector
A1: + - A2: -	

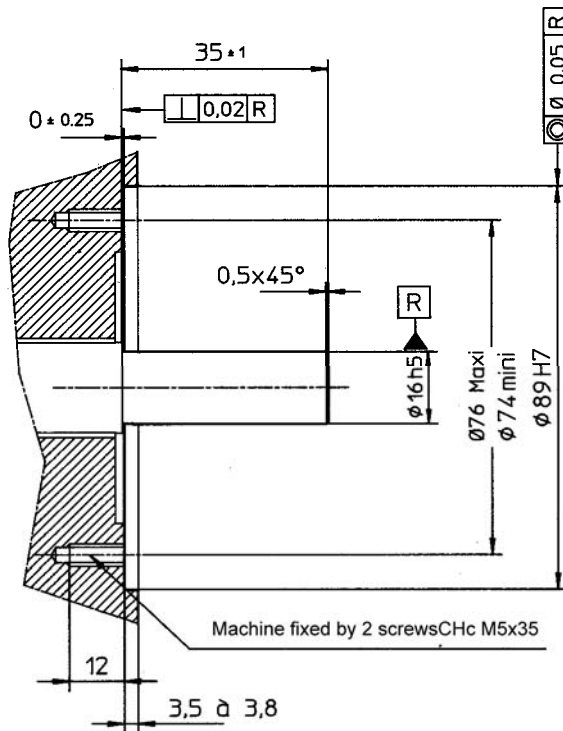
**Electrical options**

			Min.					Max.					
E.M.F. at 1000 rpm.	E <sub>n</sub>	V	10	20	30	40	50	60					
Voltage gradient	C <sub>v</sub>	V/rpm	0,01	0,02	0,03	0,04	0,05	0,06					
Armature resistance	R <sub>a</sub>	Ω	8	33	73	130	200	290					
Max. thermal load	I <sub>th</sub>	A	400	200	150	100	80	60					
Max. allowed speed	n <sub>a</sub>	rpm	7500	7500	7500	7500	6000	5000					

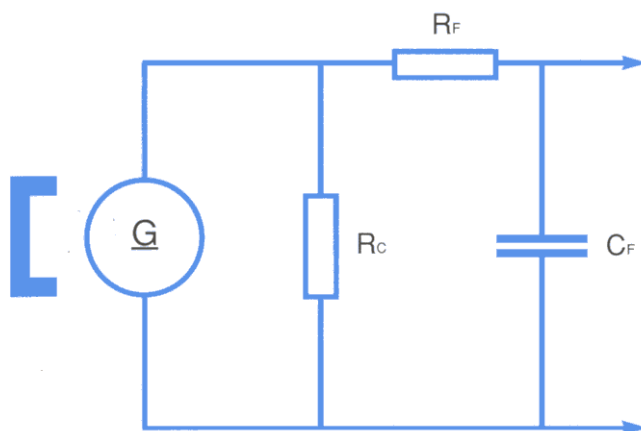
**Brushes**

Number	Size	Quality	Application limits		Reference
4	4 x 4 x 16	Electro-graphite (EG)	Special applications, on request		
		Silver-graphite (CA)	STANDARD for normal use at E.M.F. < 300 V		40 - 50 - CA

# MOUNTING INSTRUCTION



## Filter Scheme



$R_C$ : Load resistance  
 $R_F$ : Filter resistance  
 $C_F$ : Filter capacity