

Ring Force Sensors RKS02

Scope of Supply

Force sensor, with 5 m cable (PVC) and connection T: cable gland, straight

Variants

N3: plug connection, straight, M8, moulded

Additional Accessories

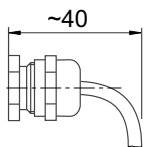
F: For use in explosive areas, J-Box incl.



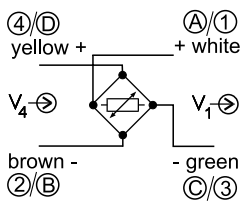
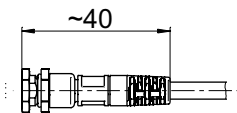
Pic. similarly

Connections

Variant T



Variant N3

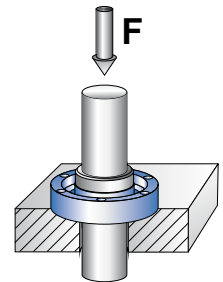


V_4 : Supply voltage
 V_1 : Signal voltage

Special Features

- Compact design
- Great nominal forces up to 10 MN
- Stainless steel design

The RKS compression sensors were developed for the precise measurement of great forces that take effect in an axial direction. To do this, the external ring is attached to the assembly surface with screws and the force is introduced via the contact surface.

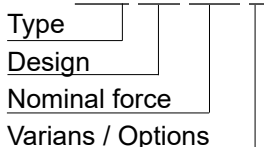


The sensors are equipped with full bridge strain gauges and work according to the principle of a compressive force body. In this context the relevant bridge sections are repeatedly broken down into single strain gauges and distributed along the circumference in order to increase the overall accuracy.

HAEHNE offers for all its sensors a corresponding range of amplifiers to condition the measuring signal and deliver the bridge voltage supply, eg. the **MV 125** unit.

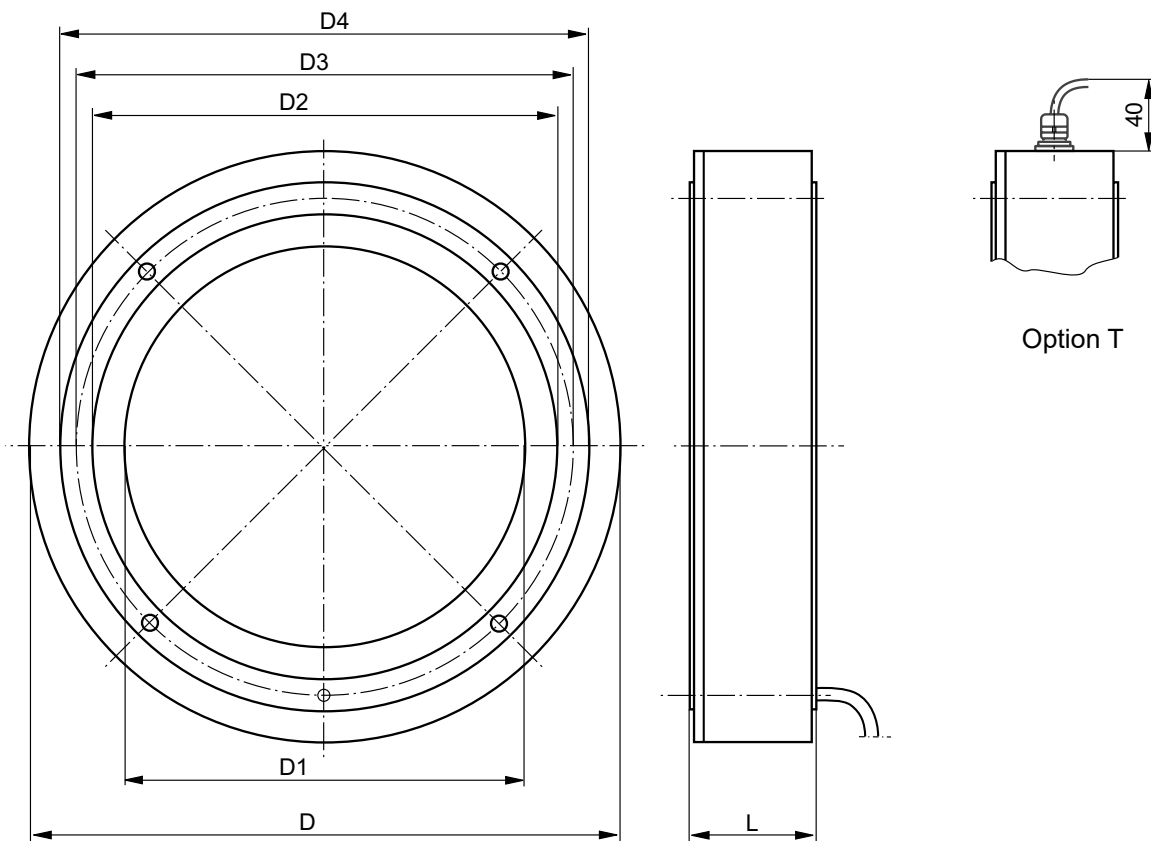
Ordering Example

RKS02A1MN-T



Technical Data	% - Values based on force nominal		
	A	B	C
Design			
Nominal Force F_{nom}	1 MN; 2 MN	4 MN	10 MN
Max. operating force	160 %	160 %	120 %
Absolute max. force	200 %	200 %	150 %
Fragility	250 %	250 %	200 %
Combined error	$\pm 1 \%$	$\pm 1 \%$	$\pm 1 \%$
Nominal rating (Option F: J-Box necessary)	1 mV/V	1 mV/V	1 mV/V
Nominal resistance	350 Ω		
Ma. bridge supply voltage	10 V DC		
Nominal ambient temperature	+10...+60 °C		
Operational temperature range	-10...+70 °C		
Enclosure protection (as DIN 40050)	IP 67		

Force Sensors RKS02 are calibrated with plates, hardened to 54,5 HRC (Rockwell Hardness Test) and with surface finished to Rz 3,2.



Design	Nominal Force [MN]	D	D1	L	D2	D3	D4
A	1 and 2	268	180	68	210	224	238,4
B	4	320	214	85	244	270	290
C	10	370	220	170	250	300	350