



RSG 10 R

Incremental encoder with stainless steel cover

- shockproof up to 200 g
- very high bearing load
- up to 100.000 pulses/turn
- pulse frequency up to 4 MHz
- protection class IP 67
- expanded temperature range up to + 110° C
- optional with cooling or heating

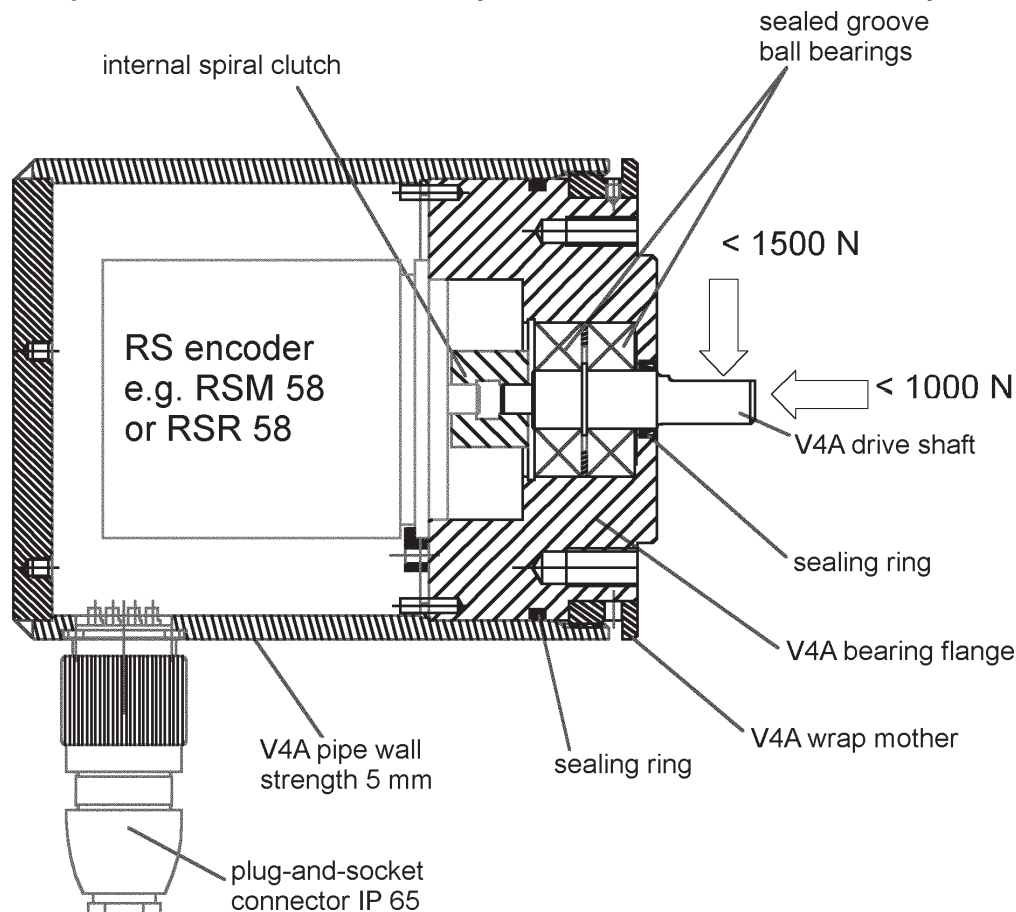
The shaft encoder system **RSG 10** was especially constructed for use under the conditions of heavy and plant making industries. The considerably lowers the costs of the mechanical adaption of the encoder, as a high efficient measuring system, to the different constructions.

System **RSG 10** was developed in close cooperation with engineers of electrical maintenance and plant making departments of the heavy industries. Because of this the already known dimensions of the standard shaft encoder system have been maintained. The system stays compatible to the mostly required encoders, inspite of its very high mechanical resistivity.

Because of the extremely high mechanical and atmospheric loads all parts have been manufactured in stainless steel (**V4A 1.4571**).

The high protection class of IP 67 and the very high bearings loads of 100 kg axial and 150 kg radial ease the use of this encoder under the conditions of the heavy and plant making industries. Additionally the internal encoder is separated form the shaft of the protection cover by means of a coupling, that e.g. guarantees a protection of the internal encoder shaft against shocks.

An additional protection cover is not necessary even under the conditions of heavy industries.



Technical data

Resolution in pulses/turn up to 100.000 I/U
 Number of channels 3 or 6
 Pulse frequency up to 4 MHz
 Output driver 5 V Line-Driver
 or push-pull

Electrical data

Operating voltage UB = 5 VDC ± 5 %
 or UB = 10...30 VDC
 Current consumption 60...200 mA
 Output current 20 mA...1A
 Output signals Kanal A, B, N + inverted

Mechanische Werte

Speed ≤ 6.000 min⁻¹
 Start-up torque < 0,3 Ncm (20° C)
 Shaft loading < 1.500 N radial
 < 1.000 N axial
 Moment of inertia 10⁴ rad/s²

Material

Housing stainless steel V4A 1.4571
 Flange stainless steel V4A 1.4571
 Weight < 5 kg

Ambient conditions

Vibration ≤ 20 g (20...2000 Hz)
 Shock ≤ 200 g (11 ms)
 Operating temperature 20...+ 80° C
 or upgrade to - 42...+ 110° C
 Storage temperature - 30 ... + 90° C
 Humidity < 85 % r. h.
 Protection type IP 67 (DIN 40050/IEC 529)
 EMV IEC 801

PIN - assignment RSG 10 R

Signal	PIN	Cable
Channel B inverted	1	brown
Heating +	2	red 0,5
Zero pulse	3	orange/black
Zero pulse inverted	4	orange
Channel A	5	gray
Channel A inverted	6	green
Heating -	7	blue 0,5
Channel B	8	white
Shield	9	yellow
GND	10	lila
Report „Heating on“	11	black
UB	12	pink

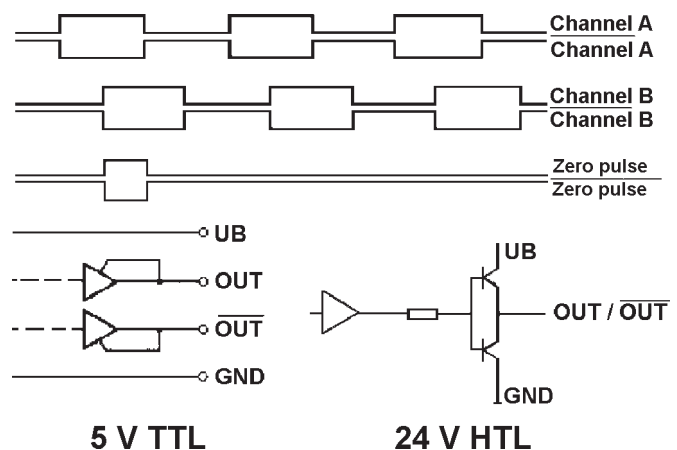
Instructions:

The supply voltage of the electric heating (24 VDC) is, if existing, layed on PIN 2 and 7 (internal not connected with UB and GND).

The report „heating on“ signals the furning on of the thermostat.

Not used out put channels before putting info operation.

Circuit principle



Type key of encoder

Encoder type	Pulse/T	Channels	Voltage	Driver	Flange	Output	Options
RSG 10 R	Look to Standard- pulse numbers	X = 3-channelled	5 = 5 VDC	S = TTL			T = temperature-resistant up to + 110° C
RSG 10 R		Y = 6-channelled	3 = 10 - 30 VDC	G = push pull	V1 = 10 mm shaft servo flange	SG = 12pol. plug axial	L = air cooling
RSG 10 R						SS = 12pol. plug radial	W = water cooling
RSG 10 R							H = electrical heating
RSG 10 R	_____	_____	_____	_____	V1	_____	_____

Standard pulse numbers:

10 - 50 - 100 - 125 - 150 - 180 - 200 - 250 - 256 - 300 - 314 - 360 - 400 - 500 - 512 - 600 - 625 - 720 - 750 - 800 - 900 - 1000 - 1024 - 1200 - 1250 - 1375 - 1500 - 1800 - 2000 - 2048 - 2500 - 3600 - 4096 - 5000 - 6000 - 10000

Other pulse numbers on request

Dimension and cutout RSG 10 R

