

OVERSPEED SPEED SWITCH, GHM9 SERIES, ROBUSTECH™

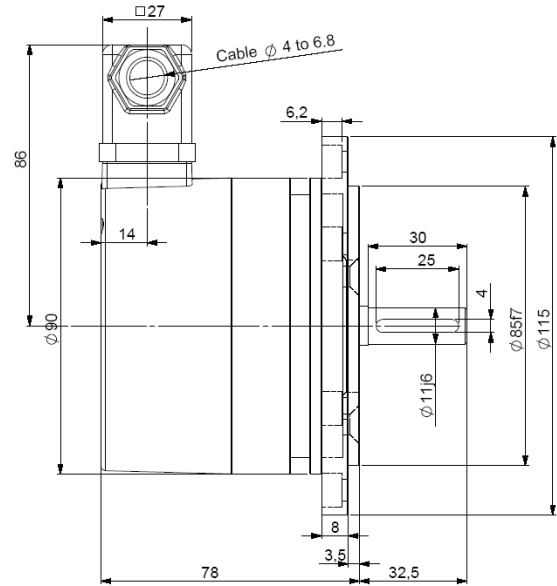
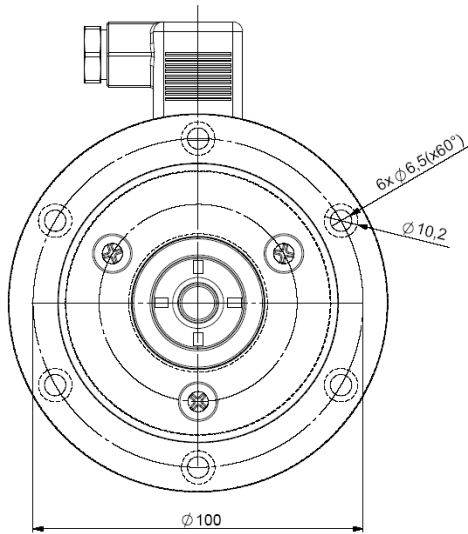
The overspeed switch function on the **ROBUSTECH™** range – a sturdy mechanical security module without external power supply:

- radial commutation centrifugal switch without permanent contact
- high quality mechanics reliability
- excellent repeatability
- secured system, works without power supply
- modular mounting possibility
- commutation speed : standard calibration range between 800 and 4 000 rpm (rotation per minute)

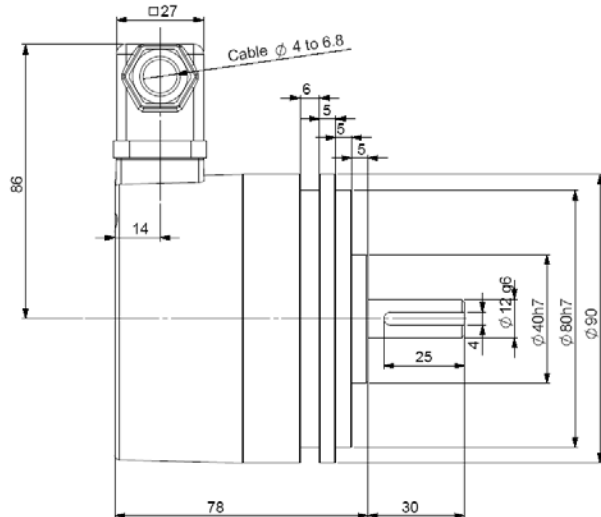
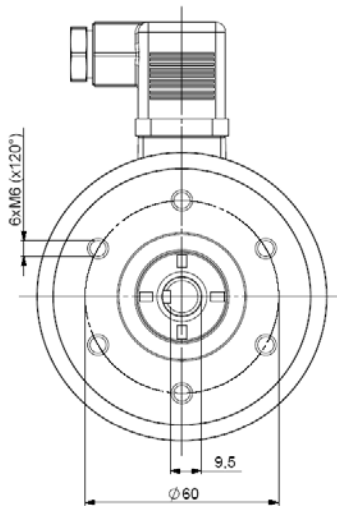
Especially designed for heavy duty industry (steel and paper mills, lumber, cranes, engine etc...). Sturdy compact conception. Excellent resistance to shocks/vibrations and to extreme axial/radial loads 12mm or 11mm solid shaft with 115mm REO (Euroflange B10) for tacho-generator type mounting



GHM9_11 OVERSPEED SYSTEM



GHM9_12 OVERSPEED SYSTEM



Material (cable or connector version), Stainless steel option	Cover : zinc alloy
	Body : aluminium
Material (terminal box version), Stainless steel option	Cover: treated alu.
	Body: aluminium
Shaft material	Stainless steel
Bearings	6001 serie
Maximal loads	Axial : 100 N
	Radial : 200 N
Shaft inertia	$\leq 15 \cdot 10^{-6} \text{ kg.m}^2$
Torque	$\leq 10 \cdot 10^{-3} \text{ N.m}$
Permissible max. speed	9 000 min ⁻¹

Continuous max. speed	6 000 min ⁻¹
Max. speed	1,5 · n _s
Shaft seal	Viton double lips
Encoder weight (approx.)	1,100kg zinc alloy cover, alu. body
	2,600kg stainless steel cover & body
Encoder weight (approx.)	1,300kg aluminium cover & body
	2,800kg stainless steel cover & body
Operating temperature	-30 ... +130°C
Protection(EN 60529)	IP 66
Theoretical mechanical lifetime 10 ⁹ turns (F _{axial} / F _{radial})	
20 N / 30 N : 360	50 N / 100 N : 18
100 N / 200 N : 2,2	

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CHARACTERISTICS

Switching speed	800 ... 4 000 rpm
Principle	centrifugal
Mechanical life-time	500 000 cycles
Contact type	opened or closed

Max current	6 A / 240 Vac
Contact material	silver-cadmium
Maximum breaking sequence	4/min
Breaking accuracy	min ⁻¹ - 5% ... +8%

The commutation speed n_s is definitely calibrated in our factory

Right or left rotation direction

The switching speed n_s is defined for an acceleration = 100 s^{-2} (other, consult us)

Nota: $1 \text{ rad.s}^{-2} \leftrightarrow 9,55 \text{ rpm.s}^{-1}$

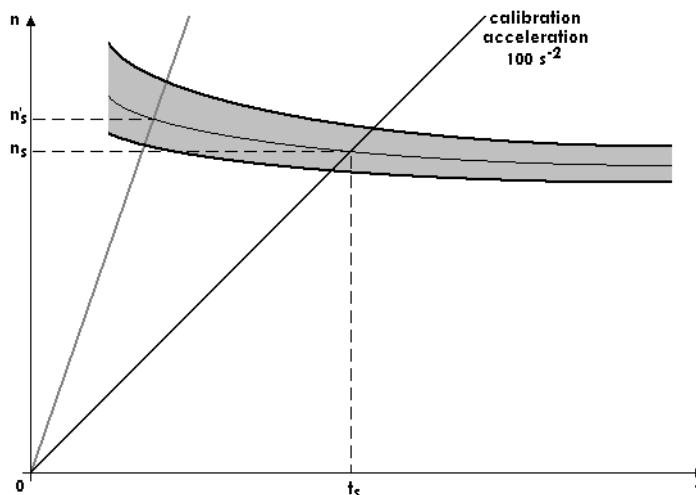
The hysteresis is about -3% in counter clockwise direction compared with clockwise direction

It is advised to choose the switching speed n_s in order that $n_s = 1,15.n_n$ (n_n : working speed, nominal speed)

The centrifugal relay must be used only in the case of an increasing speed

In decreasing speed, the centrifugal switch will open automatically at a slower speed of approximately 40% of the calibrated switching speed n_s

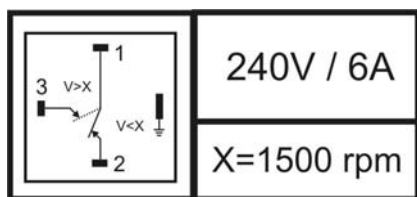
In the case of a higher acceleration than 100 s^{-2} , the switching speed will be higher ($n's$, cf here-under drawing)



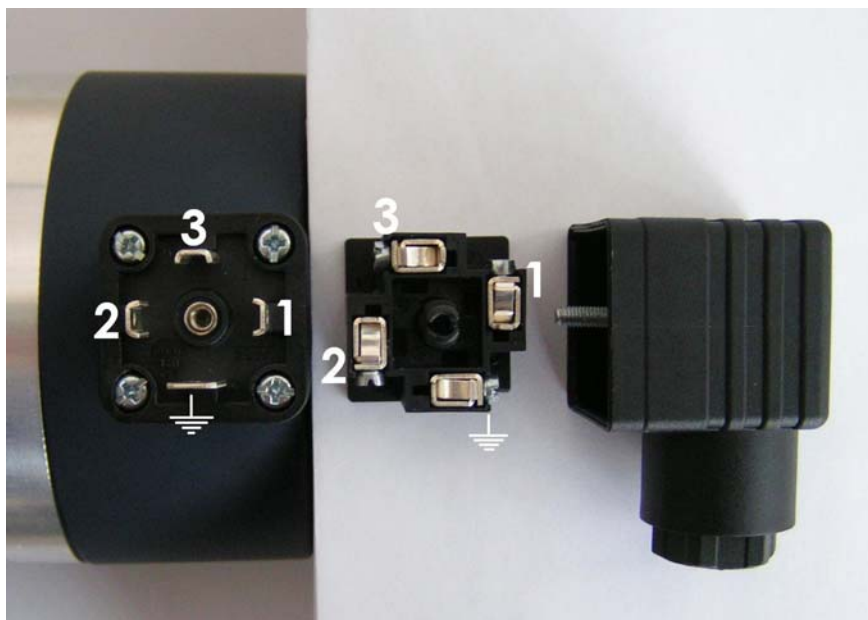
STANDARD CONNECTION

With 4 pinout solenoid valve connector

Contact 1 to 3 can be connected according to the desired configuration (rest, work or opposite)



The earth pin of the connector must be connected to the ground of the installation



AVAILABLE OVERSPEED SYSTEMS (Consult us for special version: ex: flange / connection / specific speed...)

Standard speeds (rpm) : 1 000, 1 200, 1 500, 1 800, 3 000 (consult us for other speed)

Reference: consult us

Note : The switch commutation speed is calibrated in our factory, no correction and no later modification is possible

Made in France