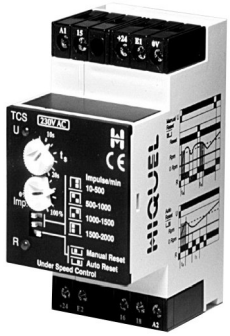
TCS

overview

- **under speed control with fault latching function**
- **SPCO output max. 6A**
- **input PNP 24Vdc, contact or voltage**
- **start surge delay 0.2-20s**
- **4 selectable speed ranges**
- **LED indicators for power supply, contact and reaction timer**
- **45mm DIN rail mount housing**

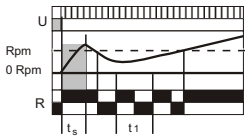


Function

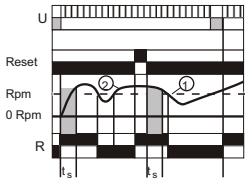
Control relay active / Control relay passive
Contact closed / Contact open

① Underspeed threshold
② Monitored speed
ts... Start surge delay

Auto Reset



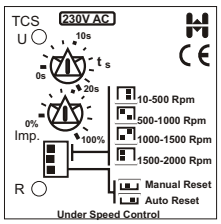
Manual Reset

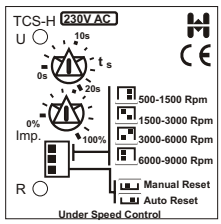


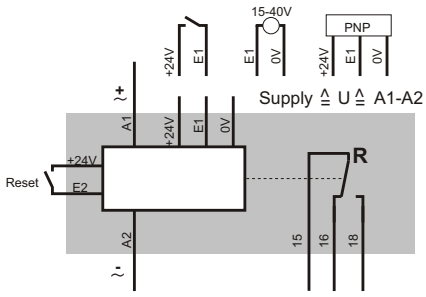
Control relay to monitor under speed
On application of the supply voltage the output relay energises and the timing period **ts** starts. The TCS monitors the time between the leading edge of successive input pulses. When the timing period between the pulses exceeds the set value, the output relay drops out.

Auto Reset
When the timing period between the pulses returns to the admissible range for three successive pulses the output relay resets.

Manual Reset
A manual reset can be performed by linking the terminals +24 and E2, the output relay pulls in. After removing the link between the terminals time **ts** starts.







specification

supply voltage variation		nominal voltage +10% / -20%
frequency range		48 - 63 Hz
duty cycle		100%
range	**TCS**	10-2000 Rpm
	TCS-H	500-9000 Rpm
start surge delay		0 - 20 s
output relay specification		max. 6A 230V~
Ue/Ie	AC-15	120V/5A 240V/4A
Ue/Ie	DC-13	24V/3A
		EN 60947-5-1 VDE 0435
expected life time		DPCO SPCO
mechanical		2×10^6 1×10^7
electrical		1×10^5 1×10^5
operating conditions		-20 to +60 °C non condensing

ordering information

part no	supply		ouput	sup. galv. iso*	housing types
TCS 230Vac	230V~	2,5VA	SPCO	yes	C
TCS 115Vac	115V~	2,5VA	SPCO	yes	C
TCS 24Vdc	24V=	2W	SPCO	no	C
TCS-H 230Vac	230V~	2,5VA	SPCO	yes	C
TCS-H 115Vac	115V~	2,5VA	SPCO	yes	C
TCS-H 24Vdc	24V=	2W	SPCO	no	C

* The measurement input is galvanically isolated from the power supply

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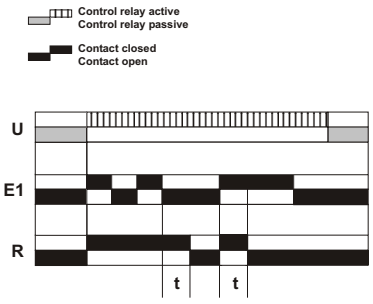
DGR

overview

- speed control
- SPCO output max. 6A
- 6 selectable time ranges
- LED indicators for power supply and output relay
- 22.5 or 45mm DIN rail mount housing

Function

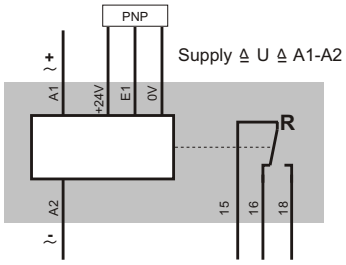


A Control Relay to monitor changing impulses at a sensor
On application of the supply voltage and with an input pulse leading edge present on the sensor, the output relay energises. If there are no more impulses measured during time **t**, the output relay drops out.

Time ranges

0,1s-1,0s	1,0s-10s	0,1min-1,0min	1,0min-10min	0,1h-1,0h	1,0h-10h

The required delay time within the range selected is set using the potentiometer on the front plate



specification

supply voltage variation	nominal voltage +10% / -15%
frequency range	48 - 63 Hz
max delay time	100% of the selected time range
max input frequency	10Hz or 600 Rpm
output relay specification	max. 6A 230V~
Ue/Ie AC-15	120V/5A 240V/4A
Ue/Ie DC-13	24V/4A
	EN 60947-5-1 VDE 0435
expected life time	DPCO SPCO
mechanical	2×10^6 2×10^7
electrical	1×10^5 1×10^5
operating conditions	-20 to +60 °C non condensing

ordering information

part no	supply		output	sup. galv. iso*	housing types
DGR 230Vac	230V~	2VA	SPCO	yes	C
DGR 24Vdc	24V=	1W	SPCO	no	B

* The measurement input is galvanically isolated from the power supply

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