

Control Unit

Type 8513

switch panel housing version, with
pulse extension and running-time limitation

8513

ESN

Description

The type 8513 control unit serves the purposes of power supply, remote control, function monitoring, and switch-position reporting on switch drive motors based on the 3-lead principle (inwards lead, outwards lead, and return lead). Its standard version does not have any pulse extension of its own. The running-time limitation switches off after the pulse extension phase has finished even with 4-lead systems (with an automatic stop mechanism), so it is possible to reverse or switch again at once if a blockage occurs after the time has elapsed. The pulse extension time is 10 seconds at the standard setting but can be altered to any setting from 1 second to 15 seconds.

For this version the remote control voltage is 24V DC.

The control unit is connected directly to the supply voltage of the drive or switch (the appropriate integral fuse or contact-breaker has to be selected). The switch remote drive and/or its connecting leads must be connected to the control unit (on terminals 1, 3 + 4). The function is monitored and the position indicated without any additional end-position switches through the motor winding.

The drive can be switched on and off via the "On" and "Off" switches. A time relay (with the standard setting of 10 seconds) ensures a sufficiently long command interval even if the buttons are only actuated briefly (this is the pulse extension) for controlling drives that do not have their own automatic stop. With drives that do have their own automatic stop the time relay limits the control unit by interrupting the zero lead. At the same time any contradictory command is prevented from being issued while the drive is running. The time relay also ensures that no setting or monitoring display occurs during the running time. This means there is no "ambiguous display"



during the running time of the drive. Light-emitting diodes (LEDs) indicate that the system is function properly and that the end-position has been reached. Please state the preferred colour of the diodes when ordering (the standard version is: red = on, green = off).

One zero-potential contact is available for each remote indicator. The terminals are: 11/12/13 for "On", and 14/15/16 of "Off".

For remote control an "On" control pulse (+ or -) can be connected to Terminal 18 and an "Off" control pulse (- or +) to Terminal 19. The reference potential (M) should be connected jointly for both inputs at Terminal 20. Two integrated relays convert the control pulse (> 100 ms) with separated potential into the switch command "On" or "Off".

The distance between the control unit and the drive, switch, etc. is determined by the permissible voltage loss for the unit that is to be controlled, not by the control unit itself.

Special versions are available on request.

Technical Data

Dimensions	housing W/H/D = 136x90x125 mm front frame W/H/D = 146x98x35 mm
Housing	Noryl, ABS
Fastening	2 clamps
Safety category	Housing IP 40; Terminals IP 10
Ambient temperature	-20°C to +60°C
Fuse / breaker	as required (standard = 6.3A)
Command buttons	2 (for "On" and "Off")
Contact connection	max. AC 250V, 5.0A
Indicators	2 light-emitting diodes Colours: red, yellow, green or to customer's specification (standard: "On" = red, "Off" = green)
Remote control connections	1 zero-potential switch contact for "On", 1 for "Off" $U \leq AC 250V; I \leq 2A; P \leq 500 VA$
Consumption	approx. 250 mW
Voltage	DC 24V (19-34V)
Timings	Impulse extension = running time limitation Standard: approx. 10 seconds (adjustable, 1-15 seconds)
Test voltage	Field side against indicator contact and Field side against control side $4 kV_{eff}$ (1 minute)
MTBF	ground fixed at case temperature $\leq 40^{\circ}C$: 125.000h

Ordering Information

Type	Order No.
8513	310251

Other versions are available on request.

