

KOL

Timer

Electronic 17.5 mm

KOL

| | |
|-----------------|--|
| Characteristics | <ul style="list-style-type: none">■ 17.5 mm■ multifunction■ multi time range■ multi voltage |
| Mounting | <ul style="list-style-type: none">■ surface mounting■ snap-on DIN rail 35 mm |
| Dimensions (mm) | 17.5 x 80 x 70 |
| Functions* | 11, 12, 21, 42, 51, 60 |
| Time ranges | 6 time ranges, 0.05 s up to 10 h |
| Outputs | 1 relay NO, KOL1.. 1 relay as change-over, KOL3.. 250 VAC, 5 A |
| Supply voltage | 24...48 VDC or 24...240 VAC, 50/60 Hz |



Preferred Range

| Ordering Reference | Characteristics |
|--------------------|---|
| | <ul style="list-style-type: none">■ Multi time range 0.05 s...10 h■ Multi voltage 24...48 VDC and 24...240 VAC |
| KOL360H7MRVPN00 | Multi functions timer 311/12/21/42 |
| KOL311H7MRVPN00 | Delayed operation timer |
| KOL312H7MRVPN00 | Delayed release timer |
| KOL321H7MRVPN00 | Fleeting-on delay timer |
| KOL342H7MRVPN00 | Flasher relay timer |
| KOL251H7MKVPN00 | Star/delta timer |

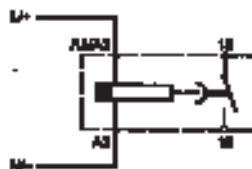
* 11: delayed operation; 12: delayed release; 16: delayed operation and release; 21: fleeting-on delay timer; 22: fleeting-off delay timer; 23: impulse converter; 24: impulse generator; 42: flasher relay; 28: watchdog; 31/70: asymmetrical timer; 51: star-delta timer; 19: power off delayed release

Technical data

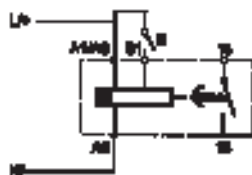
| | |
|----------------------------|---|
| Multi time ranges | 0.05...1 s 0.05...1 min 0.05...1 h 0.5...10 s 0.5...10 min 0.5...10 h time range and function selected from front with screwdriver |
| Setting accuracy | ±5% of the time range final value ($t_{\max.}$) |
| Repeat accuracy | 1% of the time range final value ($t_{\max.}$) |
| Reset time | 100 ms |
| Supply voltage | 24...48 VDC or 24...240 VAC, 50/60 Hz (dual voltage) |
| Voltage tolerance | -15%/+20% (DC), -15%/+10% (AC) |
| Power consumption | 0.5 W at 24 VDC, 5 VA at 240 VAC |
| Duty cycle | 100% |
| Pulse control | supply voltage range, current 1 mA, duration of the control pulse >250 ms |
| Output | 1 relay as change-over, LED display of output status |
| Switching capacity | U = 250 VAC, I _{th} = 5 A, P = 1000 VA 1 A/250 VAC (AC 14) or 1 A/24 VDC (DC 13) according to IEC |
| Insulation characteristics | 2 kVAC/50 Hz test voltage according to VDE 0435 and 4 kV 1.2/50 ms surge voltage according to EN 60947-5-1 between all inputs and outputs |
| EMC/Interference immunity | surge capacity according to IEC 1000-4-5, level 3; Burst according to IEC 1000-4-4, level 3; ESD according to IEC 1000-4-2, level 3 |
| EMC/Emissions | electromagnetic fields according to EN 55022, class B |
| Approvals | UL, C-UL |
| Ambient temperature | -20°C to +50°C |
| Connections | screw terminals for 1 x 0.5 mm ² up to 2 x 2.5 mm ² , for Pozidrive no.1 (max. 1 Nm) or screwdriver, finger safe according to VDE 0106 |
| Mounting | surface mounting; snap-on mounting on DIN rail 35 mm or screw mounting by adapter (accessory) and 2 screws M4, any mounting position |

Technical data

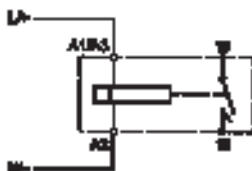
Circuit diagrams Delayed operation (11)



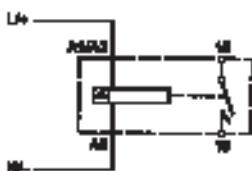
Delayed release (12)





Fleeting-on delay timer (21)

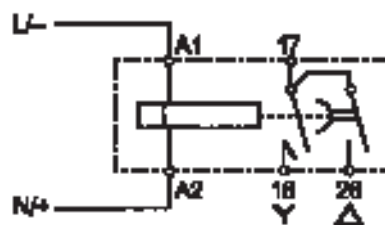


Flasher relay (42)



 = green LED: power on
 = orange LED: output in operating position

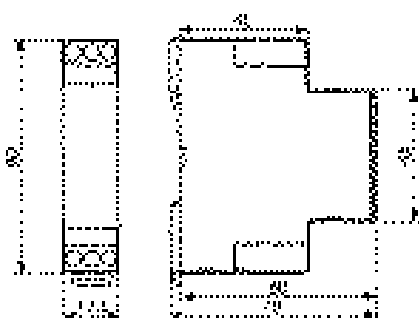
Star-delta relay (251)



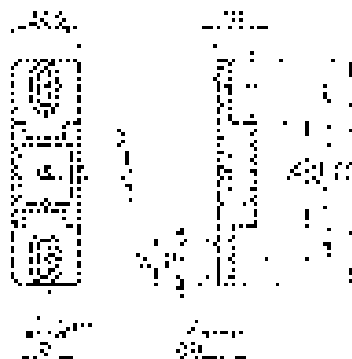
 = green LED: output in operating position

Technical data

Dimensions Timer



Adapter for screw mounting



Ordering Reference

| | | |
|----------------|------------|--|
| Type | KOL | |
| Function | 111 | Mono function, 4 time range, delayed operation |
| | 311 | Mono function, 6 time range, delayed operation |
| | 112 | Mono function, 4 time range, delayed release |
| | 312 | Mono function, 6 time range, delayed release |
| | 121 | Mono function, 4 time range, fleeting-on delay timer |
| | 321 | Mono function, 6 time range, fleeting-on delay timer |
| | 142 | Mono function, 4 time range, flasher relay |
| | 342 | Mono function, 6 time range, flasher relay |
| | 160 | Multi function, 4 time range |
| | 360 | Multi function, 6 time range |
| | 251 | Dual Voltage, 4 time range, star-delta relay |
| Housing | H7 | 6 Terminals |
| Time ranges | MN | Multi time 0.5 s...1 h, for KOL 112, 160 |
| | MN | Multi time 0.75 s...1 h, for KOL 111, 121, 142 |
| | MR | Multi time 0.05 s...10 h, for KOL3... |
| | MK | Multi time 0.15 s...10 min, for KOL251 only |
| Supply voltage | VP | 24...240 VAC & 24...48 VDC, for KOL3... |
| | M1 | 12 VDC |
| | VM | 230-240 VAC for KOL1... |
| | N00 | |
| Accessories | CJ260 | Adapter for screw mounting |