

## L & G Relays (KLNx.x)

	<p><b>KLNx.xUS</b>          Mercury-wetted contact relays (HG)          UEGM 25 housing: 1 output          UEGM 40/2 housing: 2 or 3 outputs          Pulse voltage: 24V, 48V, 60V, 100V, 230V (AC/DC)</p>
	<p><b>KLNx.xUF3LS</b>          Mercury-wetted contact relays (HG)          1, 2 or 3 outputs          Pulse voltage: 24V, 48V, 60V, 100V, 230V (AC/DC)</p> <p>Output max. 230V / 100VA          Schematic drawing ZA12 housing:</p>
	<p><b>19" Rack</b>          Mercury-wetted contact relays (HG) for installation in 19" rack or wall mounted housings.</p>





Relays with S0 pulse input (20VDC)		
KLN2.2UF3SNZLS spec.	08502	115V AC/DC (auxiliary power)
KLN2.2UF3SNZLS spec.	08503	230V AC/DC (auxiliary power)
Relays for remote multiplexer link		
KLN1FUQ8F3 spec.	08512	115V AC/DC (auxiliary power)
KLN1FUQ8F3 spec.	08513	230V AC/DC (auxiliary power)
Relays for polarity reversal		
KLN6.2UF3EL	09342	24V-36V AC/DC
KLN8.2UF3EL	09029	24V-36V AC/DC
KLN9.3UF3	09511	100V AC/DC
Order Number    Type KLNx.xUF3LS    ZA16 Housing		
Relays	Order Number	Order Number
3KLN2.1UF3LS	08745	48V AC/DC
3KLN2.1UF3LS	08781	100V AC/DC
3KLN2.1UF3LS	08518	230V AC/DC

## 19" Rack

**KLN 19"** Mercury-wetted contact relays (HG)

19"-system  
Width: 8PU  
Height: 3HU

1PU = 5,08 mm  
1HU = 44,45 mm

### Installation:

KLN 19" Connector (male) D 32 way  
19" rack Connector (female) D 32 way

Order Number    Type KLN 19"		
Relays	Order Number	Pulse voltage
3KLN2.2UÖ/S	08523	230V AC/DC
4KLN2.1U/LS	08525	230V AC/DC
4KLN2.1U/LS	08734	6V (100V) AC/DC
3KLN2.2UÖ/S	08739	48V AC/DC
4KLN1.1U/LS	08913	24V AC/DC
3KLN1.2UÖ/S	09009	24V AC/DC
3KLN2.2UÖ/S	09439	100V AC/DC

Order Number				
KLN				Mercury-wetted contact relays (HG)
KLN	1			Pulse voltage 24V AC/DC
KLN	2			Pulse voltage 48V, 60V, 100V, 110V, 220V, 240V AC/DC
KLN	6			Electromagnetically relays with bipolar current pulse input
KLN	7			Electromagnetically relays with wipe pulse input, max. 500 ms
KLN	8			Electromagnetically relays with bipolar current pulse input wipe pulse output 2:1 and 1:1
KLN	9			Balanced-beam relays
KLN		.1U		With 1 output
KLN		.2U		With 2 outputs
KLN		.3U		With 3 outputs
KLN			F3	Insulating envelope
KLN			F8	Metal enclosure
KLN			S	Top-hat rail installation
KLN			SN	R11.6-S0 interface
KLN			EL	Static supplementary circuit
KLN			RC	RC-circuit
KLN			LS	With LED
KLN			S3	Only for KLN9 (S3 pulse)
KLN			Spec.	Only for KLN.2UF3 spec. ( for TL 16/5)
KLN			K	For short-circuit

## Example and special devices

KLN1FUQ8F8	Long-distance relays (phone line) with registration ZZF-T2-7 No. 036/014d33
3KLN2.UÖ/S	3 separated relays (19" rack) 2 toggle switches + 1 simple switch
3KLN2.2U	3 separated relays (19" rack) 2 toggle switches
3KLN2.1UF3LS	3 separated relays (19" rack) for measured period, tariff control and energy pulse
KLN2.1UR3SN	For R11.6-S0-interface as R3.21 incl. terminal cover
KLN2.2UF3SN	For R11.6-S0-interface in F3 housing
4KLN2.1ULS	4 separated relays on an euro card with LED
KLN2.1US KLN2.2US KLN2.3US	Top-hat rail installation

### Characteristics mercury-wetted contacts (Hg)

Data sheet (Clare)

#### Series HGRM and HGR2M

HGRM = 1 toggle switch

HGR2M = 2 toggle switches

<b>Mechanical characteristics</b>		
Temperature	- 38° to + 105° C (operating temperature)	
Housing	Sheet metal	
Connected position	righted, variation $\pm 30^\circ$ possible	
<b>Electrical characteristics</b>		
<b>Contact rating</b>		
Switching capacity	100 VA max.	
Switching voltage	500 VDC or VAC <sub>s</sub>	
Switching current	2 A max.	
Maximum current	5 A	
<b>Contact combination</b>		
1 toggle switch (W) or 2 toggle switches		
<b>Contact resistance</b>		
25 m $\Omega$ max. $\pm 2$ m $\Omega$		
<b>Electrical lifespan</b>		
10 <sup>9</sup> operations with contact suppression		
<b>Timing</b>		
For 10 Hz and nominal voltage		
	Pick time (typical)	Drop-out time (typical)
HGRM	2,0 ms	2,4 ms
HGR2M	2,5 ms	3,3 ms
<b>Changeover time at</b>		
50 - 500 $\mu$ s		
<b>Duration of bounce</b>		
None		
<b>Hg elapse time</b>		

Max. 30 seconds	
<b>Voltage proof</b>	
Measured with 50 Hz for 25° C and 55% relative humidity 1000V~eff between all pins	
<b>Insulation resistance</b>	
Measured with 500 VDC for 25° C and 55% relative humidity	
Between all pins	100 MΩ
Between housing and pins	10.000 MΩ
Between field coil and pins	10.000 MΩ
Pin to pin (2W)	10.000 MΩ
<b>Capacitance</b> (typical)	
	HGRM HGR2M
Between all pins	3,5 pF 3 pF
Between field coil and opened pins	3,5 pF 4,5 pF
Between field coil and closed pins	10 pF 7 pF
<b>Environmental conditions</b>	
Vibration	10 - 500 Hz, 10 g (none working)
Impact resistance	30 g, 11 ± 1 ms, Sinus alternation (none working)