



Switching
Management Solutions

*Industrial
switching
with wide range*



Defining an **interface relay** in simple terms

An interface relay is an electromagnetic switch operated by a relatively small electric current that can turn on or off a much larger electric current.

Which actions are executed?

Switching
Protection
Controlling
Filtering **Isolation**

An interface relay is an electrically operated **switch** that is used where it is necessary to **control** a circuit by a low-power signal.

It provides complete electrical **protective isolation** between control and controlled circuits.

Filtering AC power input signals in order to prevent leakage current.

Saving money and increasing efficiency for PLC outputs.

Reduced PLC outputs to meet energy consumption goals.

Benefits and Advantages

- A widely range of power input from 6V to 230V
- DC and AC supply voltage options
- Integrated RCZ filter option
- Saving wiring time with plug-in bridges
- High quality, long useful life
- Saving space with 6.2mm design
- LED status indicator in order to see actual movement of the contacts
- Labeling with terminal block marking materials
- Highly compact and light weight
- High level of Electromagnetic compatibility (EMC) i.e. maximum immunity to interferences.
- Self-Extinguishing plastic housing
- UL certificate

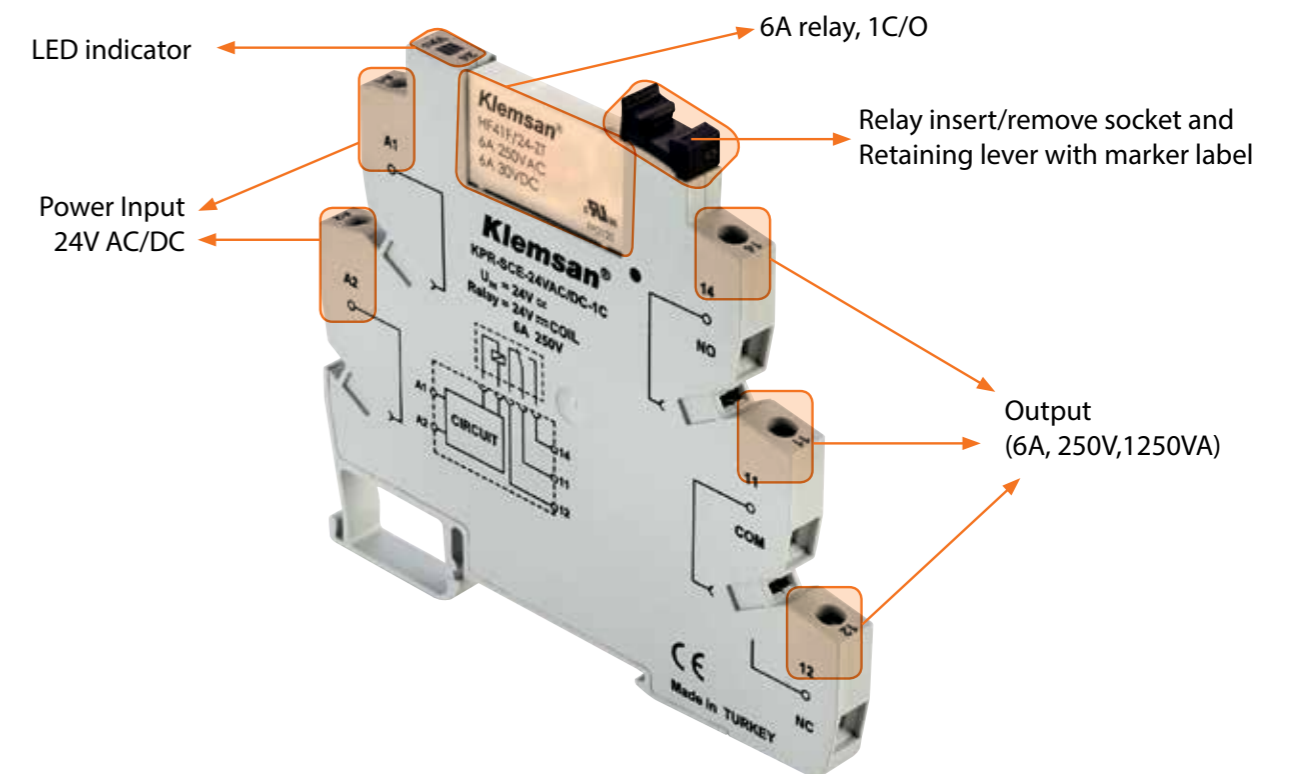
Mounting

Klemsan interface relays are suitable for snap mounting onto 35 mm standards DIN rails.

Which markets are they used frequently?

- PLC automation systems
- Electrical power plants
- Energy management systems
- Medium Voltage Panels
- Industrial Machines

Layout



KPR-SCE-24VAC/DC-1C



Automation System



Reduced PLC outputs to meet energy consumption goals



I/O CONTROL
All models

Chemical Industry



Safe isolation between inputs and outputs for pumps, compressors and air conditioning applications.



CONTROLLING
All models

Machine Control and Safety

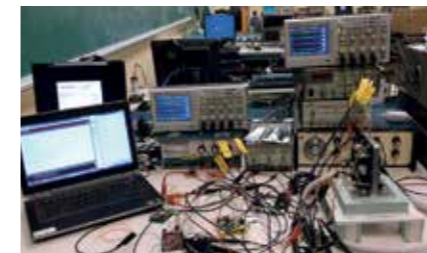


Provides isolation between control and controlled circuits.



ISOLATION
All models

Electrical Test Systems



The interface between test equipment and system/I/O devices with a high switching capacity.



CONTROLLING
All models

Pneumatic Control



Switching currents or voltage too high for PLC outputs to handle.



SWITCHING
All models

Scada System



Lengthen PLC outputs lives by using interface relay to turn many devices on and off simultaneously.



I/O CONTROL
All models

Narrow Cabinets



Only 6.2 mm wide, thus saving considerable space in your enclosures.



SPACE SAVING
All models

Control Panels



It allows to control more than one load with extrarnal pluggable bridges.



I/O CONTROL
All models

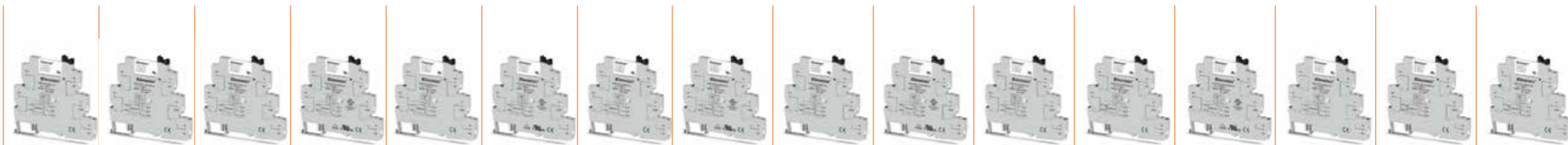
Leakage Current Applications



Preventing to stuck in "ON" state while the relay is switched as "OFF" which is caused by leakage current.







SWITCHING
KPR-SCF series

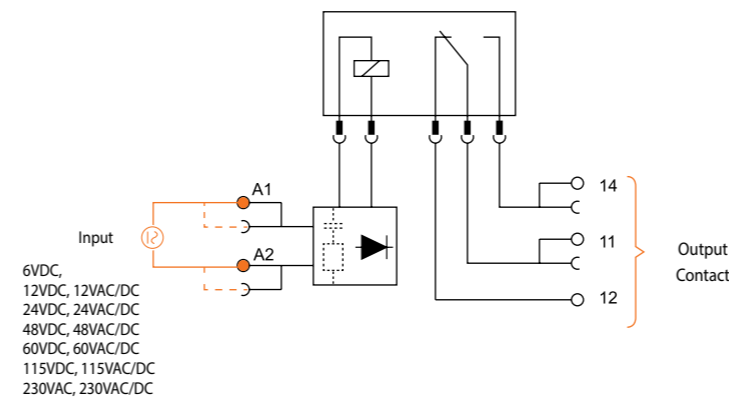


		Type	KPR-SCE-6VDC-1C	KPR-SCE-12VAC/DC-1C	KPR-SCE-12VDC-1C	KPR-SCE-24VAC/DC-1C	KPR-SCE-24VDC-1C	KPR-SCE-48VAC/DC-1C	KPR-SCE-48VDC-1C	KPR-SCE-60VAC/DC-1C	KPR-SCE-60VDC-1C	KPR-SCE-115VAC/DC-1C	KPR-SCE-115VDC-1C	KPR-SCF-115VAC/DC-1C	KPR-SCE-230VAC/DC-1C	KPR-SCE-230VAC-1C	KPR-SCF-230VAC/DC-1C	KPR-SCF-230VAC-1C	
Pre-assembled module (relay + socket)	Type		Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module with filter	Interface relay module	Interface relay module	Interface relay module with filter	Interface relay module with filter	
	Definiton		Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module	Interface relay module with filter	Interface relay module	Interface relay module	Interface relay module with filter	Interface relay module with filter	
	Order Number		270794	270800	270804	270810	270814	270820	270824	270830	270834	270840	270844	270846	270850	270852	270856	270858	
Casing Width(mm)			6,2	6,2	6,2	6,2	6,2	6,2	6,2	6,2	6,2	6,2	6,2	6,2	6,2	6,2	6,2	6,2	
Connection			Screw terminal	Screw terminal	Screw terminal	Screw terminal	Screw terminal	Screw terminal	Screw terminal	Screw terminal	Screw terminal	Screw terminal	Screw terminal	Screw terminal	Screw terminal	Screw terminal	Screw terminal	Screw terminal	
Packaging unit			10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	
Input	Nominal Voltage(Un)		6VDC	12VAC/DC	12VDC	24VAC/DC	24VDC	48VAC/DC	48VDC	60VAC/DC	60VDC	115VAC/DC	115VDC	115VAC/DC	230VAC/DC	230VAC	230VAC/DC	230VAC	
	Operating voltage range		(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	(0,8 – 1,15) x Un	
	Release voltage		0,2 x Un	0,2 x Un	0,2 x Un	0,2 x Un	0,2 x Un	0,2 x Un	0,2 x Un	0,2 x Un	0,2 x Un	0,2 x Un	0,2 x Un	0,2 x Un	0,2 x Un	0,2 x Un	0,2 x Un	0,2 x Un	
	Integrated RCZ filter		-	-	-	-	-	-	-	-	-	-	-	OK	-	-	OK	OK	
	Power Consumption	AC		-	<0.35VA	-	<0.2VA	-	<0.6VA	-	<0.4VA	-	<0.7VA	-	<1.1VA	<1.3VA	-	<2.3VA	-
	DC		<0.35W	<0.35W	<0.35W	<0.2W	<0.2W	<0.6W	<0.6W	<0.3W	<0.3W	<0.6W	<0.6W	<0.6W	<1.2W	-	<1.2W	-	
Contact Characteristic	Type		1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	1 C/O (SPDT)	
	Material		AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2	AgSnO2	
	Coil voltage		5VDC	12VDC	12VDC	24VDC	24VDC	24VDC	24VDC	60VDC	60VDC	60VDC	60VDC	60VDC	60VDC	60VDC	24VDC	60VDC	24VDC
	Coil impedance		147x(1± 10%) Ω	212x(1± 10%) Ω	212x(1± 10%) Ω	3390x(1± 15%) Ω	3390x(1± 15%) Ω	3390x(1± 15%) Ω	3390x(1± 15%) Ω	16600x(1± 15%) Ω	16600x(1± 15%) Ω	16600x(1± 15%) Ω	16600x(1± 15%) Ω	16600x(1± 15%) Ω	16600x(1± 15%) Ω	16600x(1± 15%) Ω	3390x(1± 15%) Ω	16600x(1± 15%) Ω	3390x(1± 15%) Ω
	Coil consumption		170mW	170mW	170mW	170mW	170mW	170mW	170mW	210mW	210mW	210mW	210mW	210mW	210mW	210mW	170mW	210mW	170mW
	Operate time		10 ms max.	10 ms max.	10 ms max.	10 ms max.	10 ms max.	10 ms max.	10 ms max.	10 ms max.	10 ms max.	10 ms max.	10 ms max.	10 ms max.	10 ms max.	10 ms max.	10 ms max.	10 ms max.	10 ms max.
	Release time		5 ms max.	5 ms max.	5 ms max.	5 ms max.	5 ms max.	5 ms max.	5 ms max.	5 ms max.	5 ms max.	5 ms max.	5 ms max.	5 ms max.	5 ms max.	5 ms max.	5 ms max.	5 ms max.	5 ms max.
	Max. ratings (AC)		6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA	6A/250VAC; 1500VA
	Max. ratings (DC)		6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W	6A/30VDC; 180W
	Mechanical life time		10 ⁷ operations	10 ⁷ operations	10 ⁷ operations	10 ⁷ operations	10 ⁷ operations	10 ⁷ operations	10 ⁷ operations	10 ⁷ operations	10 ⁷ operations	10 ⁷ operations	10 ⁷ operations	10 ⁷ operations	10 ⁷ operations	10 ⁷ operations	10 ⁷ operations	10 ⁷ operations	10 ⁷ operations
	Electrical life time operations (UL approval, 85°C)	NO		3 x 10 ⁴ operations	3 x 10 ⁴ operations	3 x 10 ⁴ operations	3 x 10 ⁴ operations	3 x 10 ⁴ operations	3 x 10 ⁴ operations	3 x 10 ⁴ operations	3 x 10 ⁴ operations	3 x 10 ⁴ operations	3 x 10 ⁴ operations	3 x 10 ⁴ operations	3 x 10 ⁴ operations	3 x 10 ⁴ operations	3 x 10 ⁴ operations	3 x 10 ⁴ operations	3 x 10 ⁴ operations
		NC		1 x 10 ⁴ operations	1 x 10 ⁴ operations	1 x 10 ⁴ operations	1 x 10 ⁴ operations	1 x 10 ⁴ operations	1 x 10 ⁴ operations	1 x 10 ⁴ operations	1 x 10 ⁴ operations	1 x 10 ⁴ operations	1 x 10 ⁴ operations	1 x 10 ⁴ operations	1 x 10 ⁴ operations	1 x 10 ⁴ operations	1 x 10 ⁴ operations	1 x 10 ⁴ operations	1 x 10 ⁴ operations
	Isolation resistance			1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)	1000MΩ (500VDC)
Dielectric Strength	Between relay coil and contacts		4000VAC 1 min.	4000VAC 1 min.	4000VAC 1 min.	4000VAC 1 min.	4000VAC 1 min.	4000VAC 1 min.	4000VAC 1 min.	4000VAC 1 min.	4000VAC 1 min.	4000VAC 1 min.	4000VAC 1 min.	4000VAC 1 min.	4000VAC 1 min.	4000VAC 1 min.	4000VAC 1 min.	4000VAC 1 min.	
	Between contacts		1000VAC 1 min.	1000VAC 1 min.	1000VAC 1 min.	1000VAC 1 min.	1000VAC 1 min.	1000VAC 1 min.	1000VAC 1 min.	1000VAC 1 min.	1000VAC 1 min.	1000VAC 1 min.	1000VAC 1 min.	1000VAC 1 min.	1000VAC 1 min.	1000VAC 1 min.	1000VAC 1 min.	1000VAC 1 min.	
Permissible ambient temperature	During operation		-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	
	During storage		-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	-40 to +85 °C	
Relative Humidity			5% .. 85% (no condensation)	5% .. 85% (no condensation)	5% .. 85% (no condensation)	5% .. 85% (no condensation)	5% .. 85% (no condensation)	5% .. 85% (no condensation)	5% .. 85% (no condensation)	5% .. 85% (no condensation)	5% .. 85% (no condensation)	5% .. 85% (no condensation)	5% .. 85% (no condensation)	5% .. 85% (no condensation)	5% .. 85% (no condensation)	5% .. 85% (no condensation)	5% .. 85% (no condensation)	5% .. 85% (no condensation)	
Degree of protection			IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20	
Weight(gr)			32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	32	
Max. cable cross-section			2.5mm ²	2.5mm ²	2.5mm ²	2.5mm ²	2.5mm ²	2.5mm ²	2.5mm ²	2.5mm ²	2.5mm ²	2.5mm ²	2.5mm ²	2.5mm ²	2.5mm ²	2.5mm ²	2.5mm ²	2.5mm ²	
Max. torque			0.4Nm	0.4Nm	0.4Nm	0.4Nm	0.4Nm	0.4Nm	0.4Nm	0.4Nm	0.4Nm	0.4Nm	0.4Nm	0.4Nm	0.4Nm	0.4Nm	0.4Nm	0.4Nm	
Permissible mounting position			any	any	any	any	any	any	any	any	any	any	any	any	any	any	any	any	
Certificates			UL508, IEC EN 61984-2011, IEC EN 61947-1:2010	-	-	OK	-	OK	-	OK	-	OK	-	-	OK	-	-	-	
Accessories and Components		Type		KPR-SCE-6VDC-1C (RELAY SOCKET)	KPR-SCE-12VAC/DC-1C (RELAY SOCKET)	KPR-SCE-12VDC-1C (RELAY SOCKET)	KPR-SCE-24VAC/DC-1C (RELAY SOCKET)	KPR-SCE-24VDC-1C (RELAY SOCKET)	KPR-SCE-48VAC/DC-1C (RELAY SOCKET)	KPR-SCE-48VDC-1C (RELAY SOCKET)	KPR-SCE-60VAC/DC-1C (RELAY SOCKET)	KPR-SCE-60VDC-1C (RELAY SOCKET)	KPR-SCE-115VAC/DC-1C (RELAY SOCKET)	KPR-SCE-115VDC-1C (RELAY SOCKET)	KPR-SCF-115VAC/DC-1C (RELAY SOCKET)	KPR-SCE-230VAC/DC-1C (RELAY SOCKET)	KPR-SCE-230VAC-1C (RELAY SOCKET)	KPR-SCF-230VAC/DC-1C (RELAY SOCKET)	KPR-SCF-230VAC-1C (RELAY SOCKET)
		Definiton		Interface relay socket (6VDC)	Interface relay socket (12VAC/DC)	Interface relay socket (12VDC)	Interface relay socket (24VAC/DC)	Interface relay socket (24VDC)	Interface relay socket (48VAC/DC)	Interface relay socket (48VDC)	Interface relay socket (60VAC/DC)	Interface relay socket (60VDC)	Interface relay socket (115VAC/DC)	Interface relay socket (115VDC)	Interface relay socket with RCZ filter (115VAC/DC)	Interface relay socket (230VAC/DC)	Interface relay socket (230VAC)	Interface relay socket with RCZ filter (230VAC/DC)	Interface relay socket with RCZ filter (230VAC)
		Order Number		270795	270801	270805	270811	270815	270821	270825	270831	270835	270841	270845	270847	270851	270853	270857	270859
		Packaging unit		10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.

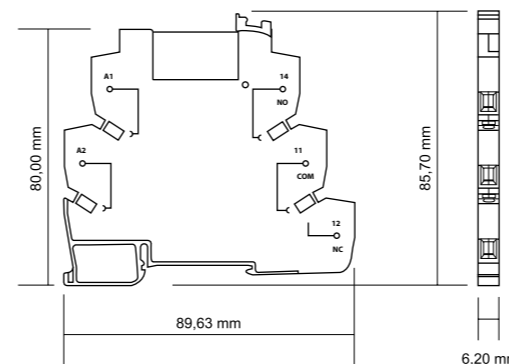


Type		KPR-SCE-6VDC-1C	KPR-SCE-12VAC/DC-1C	KPR-SCE-12VDC-1C	KPR-SCE-24VAC/DC-1C	KPR-SCE-24VDC-1C	KPR-SCE-48VAC/DC-1C	KPR-SCE-48VDC-1C	KPR-SCE-60VAC/DC-1C	KPR-SCE-60VDC-1C	KPR-SCE-115VAC/DC-1C	KPR-SCE-115VDC-1C	KPR-SCF-115VAC/DC-1C	KPR-SCE-230VAC/DC-1C	KPR-SCE-230VAC-1C	KPR-SCF-230VAC/DC-1C	KPR-SCF-230VAC-1C	
Accessories and Components	 Relay Type Definiton Order Number Packaging unit	Type	Slim type 5VDC relay	Slim type 12VDC relay	Slim type 12VDC relay	Slim type 24VDC relay	Slim type 24VDC relay	Slim type 24VDC relay	Slim type 24VDC relay	Slim type 60VDC relay	Slim type 60VDC relay	Slim type 60VDC relay	Slim type 60VDC relay	Slim type 60VDC relay	Slim type 24VDC relay	Slim type 60VDC relay	Slim type 24VDC relay	
		Definiton	Relay for 270794 and 270795	Relay for 270800 and 270801	Relay for 270804 and 270805	Relay for 270810 and 270811	Relay for 270814 and 270815	Relay for 270820 and 270821	Relay for 270824 and 270825	Relay for 270830 and 270831	Relay for 270834 and 270835	Relay for 270840 and 270841	Relay for 270844 and 270845	Relay for 270846 and 270847	Relay for 270850 and 270851	Relay for 270852 and 270853	Relay for 270856 and 270857	Relay for 270858 and 270859
		Order Number	095043	095042	095042	095041	095041	095041	095041	095040	095040	095040	095040	095040	095040	095041	095040	095041
		Packaging unit	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.	10 pcs.
	 Plug-in bridge-16 Type Definiton Order Number Packaging unit	Type	TK-KPR-S (KPR-SCE BRIDGE/16)															
		Definiton	Plug-in bridge for 16 hole															
		Order Number	476605															
	 Plug-in bridge-8 Type Definiton Order Number Packaging unit	Type	TK-KPR-S (KPR-SCE BRIDGE/8)															
		Definiton	Plug-in bridge for 8 hole															
		Order Number	476606															
	 Dekafix Type Definiton Order Number Packaging unit	Type	DG 10/6T															
		Definiton	Terminal Labels for interface relays															
Order Number		505390																
Packaging unit		360 pcs.																

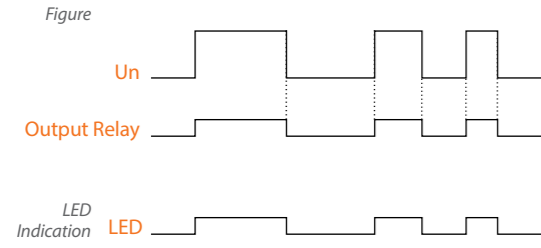
Schematics



Dimensional Drawings



All Models



When nominal voltage(U_n) is applied from A1 and A2 inputs, output relay energizes and changes its position automatically. When input voltage drops below 20% of U_n , output relay de-energizes automatically.

A series of horizontal lines for taking notes.