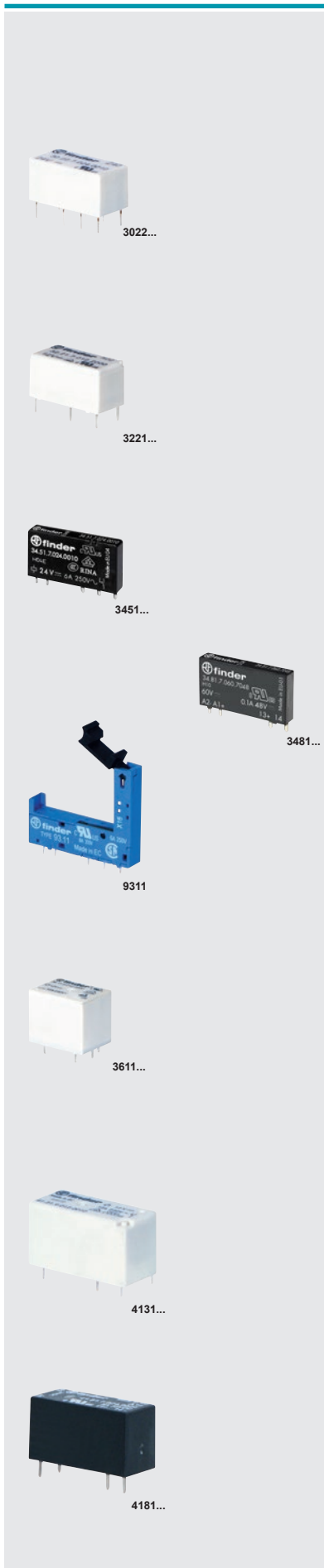


J

TIMERS & CONTROL RELAYS

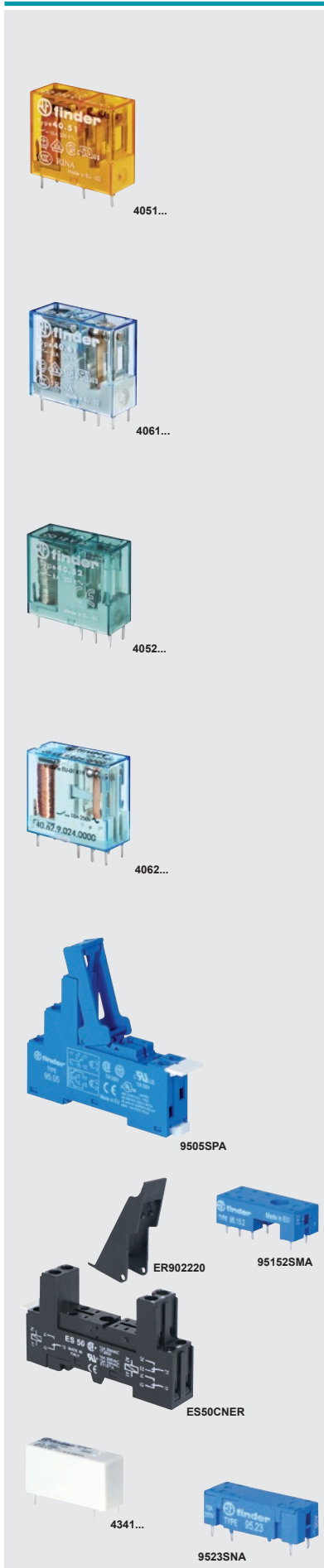
J

	PCB mount relays	J-1..3	Finder
	Plug-in relays	J-2..8	Finder
	Power relays	J-7	Finder
	Relay interface modules	J-9...10	Finder
	Modular contactors	J-11	Finder
	Stepping relay	J-12	Finder
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	Modular timing devices	J-17 J-23 J-27 J-30	Lovato Reletek Klemsan Electrodev
	Daylight Switches / Time Switches	J-21 J-24/26	Finder Reletek
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	Analog signal converters	J-28 J-35	Klemsan Electrodev
	Electromechanical motorised timers	J-29	EM
	Plug-in timing / control devices	J-33...36	Electrodev
	Digital Timers / Counters / Controllers	J-29 J-30 J-37...40	Delta Electrodev Icon



PCB mount relays







type	switch current	description	contact	pin pitch (mm)	coil voltage	price
30 series Subminiature DIL relay (11.4 x 20.3 x 10 mm)						
<ul style="list-style-type: none"> • 2-pole changeover contacts low level switching capability - 2A • Sensitive DC coil - 200mW • Wash tight: RT III 						
302270120010	2A	sealed DIL PCB relay	2 ch/over	5.08	12 VDC	74.76
302270240010	2A	sealed DIL PCB relay	2 ch/over	5.08	24 VDC	74.76
302270480010	2A	sealed DIL PCB relay	2 ch/over	5.08	48 VDC	92.01
32 series Subminiature low profile relay (10.7 x 20 x 10 mm)						
<ul style="list-style-type: none"> • 1-pole changeover contacts - 6A • Sensitive DC coil - 200mW • Wash tight: RT III 						
322170124000	6A	low profile PCB relay	1 ch/over	7.62	12 VDC	64.41
322170244000	6A	low profile PCB relay	1 ch/over	7.62	24 VDC	64.41
322170484000	6A	low profile PCB relay	1 ch/over	7.62	48 VDC	69.01
34 series Ultra-slim relay (5 mm) (15 x 28 x 5 mm)						
EMR - Electromechanical relays						
<ul style="list-style-type: none"> • 1-pole changeover contact - 6A • Ultra-slim (5 mm) package • Sensitive DC coil - 170mW • 8 mm clearance/creepage distance • 6kV (1.2/50 µs) insulation, coil-contacts 						
345170050010	6A	ultra-slim PCB relay	1 ch/over	5	5 VDC	112.71
345170120010	6A	ultra-slim PCB relay	1 ch/over	5	12 VDC	82.81
345170240010	6A	ultra-slim PCB relay	1 ch/over	5	24 VDC	82.81
345170480010	6A	ultra-slim PCB relay	1 ch/over	5	48 VDC	112.71
345170600010	6A	ultra-slim PCB relay	1 ch/over	5	60 VDC	132.26
SSR - Solid State relays <i>silent, high speed switching with long electrical life</i>						
<ul style="list-style-type: none"> • 1-NO single circuit switching - 6A, 24 VDC / 2A, 240 VAC • Sensitive DC input circuit • 3.000V insulation, input-output 						
348170129024	6A	slim solid state relay	1 NO	8 - 17 VDC	1.5 - 24 VDC	350.77
348170249024	6A	slim solid state relay	1 NO	16 - 30 VDC	1.5 - 24 VDC	350.77
348170609024	6A	slim solid state relay	1 NO	35 - 72 VDC	1.5 - 24 VDC	350.77
348170248240	2A	slim solid state relay	1 NO	16 - 30 VDC	12 - 275 VAC	371.47
348170608240	2A	slim solid state relay	1 NO	35 - 72 VDC	12 - 275 VAC	371.47
9311	PCB-mount socket with hinged retain/release clip for 34 series relays					36.81
36 series Miniature "sugar cube" relay (15.5 x 19 x 15.2 mm)						
<ul style="list-style-type: none"> • 1-pole changeover contact 10A • DC coil - 360mW • Wash tight: RTIII 						
361190124011	10A	"sugar cube" PCB relay	1 ch/over	–	12 VDC	36.81
361190244011	10A	"sugar cube" PCB relay	1 ch/over	–	24 VDC	36.81
41 series Low-profile PCB relay (15.7 x 29 x 12.6 mm)						
<ul style="list-style-type: none"> • 1 and 2 pole changeover contact 8/12/16A • DC coil - 400mW • 8 mm 6kV (1.2/50 µs) insulation, <i>coil-contacts</i> • Flux proof: RT II (<i>standard</i>) 						
Electromechanical relays						
413190120010	12A	low-profile PCB relay	1 ch/over	3.5	12 VDC	67.86
413190240010	12A	low-profile PCB relay	1 ch/over	3.5	24 VDC	67.86
416190120010	16A	low-profile PCB relay	1 ch/over	5	12 VDC	71.31
416190240010	16A	low-profile PCB relay	1 ch/over	5	24 VDC	71.31
415290120010	8A	low-profile PCB relay	2 ch/over	5	12 VDC	79.36
415290240010	8A	low-profile PCB relay	2 ch/over	5	24 VDC	79.36
Solid state relays						
<ul style="list-style-type: none"> • 1-NO single circuit switching 3/5A • Silent, high speed switching with long electrical life • 2.500 V insulation, input-output 						
418170249024	5A	solid state PCB relay	1 NO	14 - 32 VDC	1.5 - 24 VDC	376.07
418170248240	3A	solid state PCB relay	1 NO	14 - 32 VDC	12 - 275 VAC	359.97
<i>Other voltages available on request</i>						



Multi-function, suitable for a wide range of applications. Due to their versatility they are widely used in electronic circuit boards for household appliances (refrigerators, washing machines), electric gates, boiler control boards and similar

For applications where the size/ratio is an issue, examples include household appliances, food industry and drying kilns

type	current	description	contact	pin pitch	coil voltage	price
40 series Miniature PCB relays (25 x 29 x 12.4 mm)						
<ul style="list-style-type: none"> 8 mm, 6kV (1.2/50µs) isolation, coil-contacts Flux proof: RT II (standard) 						
405180120000	10A	miniature PCB relay	1 ch/over	5 mm	12 VAC	78.21
405180240000	10A	miniature PCB relay	1 ch/over	5 mm	24 VAC	78.21
405180480000	10A	miniature PCB relay	1 ch/over	5 mm	48 VAC	87.41
405181100000	10A	miniature PCB relay	1 ch/over	5 mm	110 VAC	100.06
405182400000	10A	miniature PCB relay	1 ch/over	5 mm	240 VAC	126.51
405190120000	10A	miniature PCB relay	1 ch/over	5 mm	12 VDC	56.36
405190240000	10A	miniature PCB relay	1 ch/over	5 mm	24 VDC	56.36
405190360000	10A	miniature PCB relay	1 ch/over	5 mm	36 VDC	74.76
405190480000	10A	miniature PCB relay	1 ch/over	5 mm	48 VDC	74.76
405191100000	10A	miniature PCB relay	1 ch/over	5 mm	110 VDC	85.11
406180120000	16A	miniature PCB relay	1 ch/over	5 mm	12 VAC	81.66
406180240000	16A	miniature PCB relay	1 ch/over	5 mm	24 VAC	81.66
406180480000	16A	miniature PCB relay	1 ch/over	5 mm	48 VAC	92.01
406181100000	16A	miniature PCB relay	1 ch/over	5 mm	110 VAC	103.51
406182400000	16A	miniature PCB relay	1 ch/over	5 mm	240 VAC	129.96
406190120000	16A	miniature PCB relay	1 ch/over	5 mm	12 VDC	129.96
406190240000	16A	miniature PCB relay	1 ch/over	5 mm	24 VDC	58.66
406190360000	16A	miniature PCB relay	1 ch/over	5 mm	36 VDC	77.06
406190480000	16A	miniature PCB relay	1 ch/over	5 mm	48 VDC	77.06
406191100000	16A	miniature PCB relay	1 ch/over	5 mm	110 VDC	87.41
405280120000	8A	miniature PCB relay	2 ch/over	5 mm	12 VAC	92.01
405280240000	8A	miniature PCB relay	2 ch/over	5 mm	24 VAC	92.01
405280480000	8A	miniature PCB relay	2 ch/over	5 mm	48 VAC	102.36
405281100000	8A	miniature PCB relay	2 ch/over	5mm	110 VAC	113.86
405282400000	8A	miniature PCB relay	2 ch/over	5 mm	240 VAC	141.46
405290120000	8A	miniature PCB relay	2 ch/over	5 mm	12 VDC	67.86
406290120000	10A	miniature PCB relay	2 ch/over	5 mm	12 VDC	81.66
405290240000	8A	miniature PCB relay	2 ch/over	5 mm	24 VDC	67.86
406290240000	10A	miniature PCB relay	2 ch/over	5 mm	24 VDC	81.66
405290360000	8A	miniature PCB relay	2 ch/over	5 mm	36 VDC	87.41
405290480000	8A	miniature PCB relay	2 ch/over	5 mm	48 VDC	87.41
405291100000	8A	miniature PCB relay	2 ch/over	5 mm	110 VDC	97.76
Other voltages available on request						
Other configurations: (replace 5th digit with following): (e.g. 405160120000)						
6		Bistable (single coil) version				85.10
7		DC sensitive coil version 0.5 W				8.05
Sockets and accessories for 40 series relays						for relay
95152SMA		PCB mount socket + retaining clip		(solder)	40 series	25.08
9505SPA*		surface/DIN mount socket + retaining clip		(screw term)	40 series	98.91
95P5SPA*		surface/DIN mount socket + retaining clip		(push-in term)	40 series	133.41
* Accepts plug-in LED, diode, timing modules (plugs directly into socket) see page J-8						
09518		jumper link/bridge bar for sockets		(8 way)	9505	55.21
09758		jumper link/bridge bar for sockets		(8 way)	95P5	106.96
46392/PS		sheet marking tags (mounts onto retain clip/holder)		(48 pcs)	9505/P5	87.41
09700		tag holder for 46392/PS		(mounts onto socket) (10 pcs)	9505/P5	30.59
ES50CNER		Ersce black surface/DIN mount socket		(screw terminal)	40 series	88.56
ER902220		spring securing/release clip for socket		(10 pcs)	ES50	95.46
ER902230		clip-on marking plate (top or bottom) for socket		(10 pcs)	ES50	62.11
43 series Low-profile slimline PCB relays (15.4 x 28.6 x 10.2 mm)						
<ul style="list-style-type: none"> 1-pole changeover contact 10A Very high coil-contact isolation 10 mm, 6kV (1.2/50µs) Flux proof: RT II (standard) 						
434170122000	10A	low profile slim PCB relay	1 ch/over	3.2 mm	12 VDC	56.36
434170242000	10A	low profile slim PCB relay	1 ch/over	3.2 mm	24 VDC	56.36
9523SNA		PCB-mount socket 43 series relay (with retaining clip)			4341	23.93

	type	current	description	contact	coil voltage	price
						
46618...						
						
46619...						
						
46528...						
						
9711						
						
9702SPA						
						
5514...						
46 series Miniature industrial plug-in relays (32.8 x 29 x 12.4 mm)						
<ul style="list-style-type: none"> • AC and DC coil voltages • Lockable test/override button • 8mm, 6kV (1.2/50µs) isolation, coil-contacts • Manual override facility and mechanical flag indication of relay status • Plug-in or direct connection via robust Faston terminals (1 pole 4.75 / 2 pole 2.5 mm) 						
466180120040	16A	miniature plug-in relay	1 ch/over	12 VAC	126.51	
466180240040	16A	miniature plug-in relay	1 ch/over	24 VAC	126.51	
466180480040	16A	miniature plug-in relay	1 ch/over	48 VAC	135.71	
466181100040	16A	miniature plug-in relay	1 ch/over	110 VAC	146.06	
466182300040	16A	miniature plug-in relay	1 ch/over	230 VAC	175.96	
466190120040	16A	miniature plug-in relay	1 ch/over	12 VDC	101.21	
466190240040	16A	miniature plug-in relay	1 ch/over	24 VDC	101.21	
466190480040	16A	miniature plug-in relay	1 ch/over	48 VDC	123.06	
466191100040	16A	miniature plug-in relay	1 ch/over	110 VDC	134.56	
465280120040	8A	miniature plug-in relay	2 ch/over	12 VAC	143.76	
465280240040	8A	miniature plug-in relay	2 ch/over	24 VAC	143.76	
465280480040	8A	miniature plug-in relay	2 ch/over	48 VAC	152.96	
465281100040	8A	miniature plug-in relay	2 ch/over	110 VAC	163.31	
465282300040	8A	miniature plug-in relay	2 ch/over	230 VAC	197.81	
465290120040	8A	miniature plug-in relay	2 ch/over	12 VDC	117.31	
465290240040	8A	miniature plug-in relay	2 ch/over	24 VDC	117.31	
465290480040	8A	miniature plug-in relay	2 ch/over	48 VDC	140.31	
465291100040	8A	miniature plug-in relay	2 ch/over	110 VDC	154.11	
Other configurations replace last two digits with following: (e.g.4661801200 54)						
54	LED	internal LED indicator for		AC relays	26.45	
74	LED	internal LED indicator for		DC relays	26.45	
Sockets and accessories for 46 series relays						
				for relay		
9711	PCB mount relay socket		for relay	4661	51.76	
9712	PCB mount relay socket		for relay	4652	64.41	
9701SPA*	surface/DIN mount socket + retaining clip		(screw term)	4661	95.46	
9702SPA*	surface/DIN mount socket + retaining clip		(screw term)	4652	103.51	
97P1SPA*	surface/DIN mount socket + retaining clip		(push-in term)	4661	125.36	
97P2SPA*	surface/DIN mount socket + retaining clip		(push-in term)	4652	135.71	
* Accepts plug-in LED, diode, timing modules (plugs directly into socket) see page J-8						
04607	DIN rail mountable support bracket for relays			4661/52	40.26	
09518	jumper link/bridge bar for sockets		(8 way)	9701/02	55.21	
09758	jumper link/bridge bar for sockets		(8 way)	97P1/2	106.96	
46392/PS	marking tags (mounts onto retain clip/holder)		(48 pcs)	970/P1/2	87.41	
09700	tag holder for 46392/PS (mounts onto socket)		(10pcs)	970/P1/2	30.59	
55 series Miniature industrial pcb mount relays (32.8 x 29 x 12.4mm)						
PCB mount termination (55 series)						
<ul style="list-style-type: none"> • AC and DC coil voltages • Mounting and dedicated sockets, see J-4 						
551280120000	10A	miniature PCB mount relay	2 ch/over	12 VAC	150.66	
551280240000	10A	miniature PCB mount relay	2 ch/over	24 VAC	150.66	
551281100000	10A	miniature PCB mount relay	2 ch/over	110 VAC	177.11	
551282400000	10A	miniature PCB mount relay	2 ch/over	230 VAC	166.76	
551290120000	10A	miniature PCB mount relay	2 ch/over	12 VDC	150.66	
551290240000	10A	miniature PCB mount relay	2 ch/over	24 VDC	150.66	
551290480000	10A	miniature PCB mount relay	2 ch/over	48 VDC	177.11	
551291100000	10A	miniature PCB mount relay	2 ch/over	110 VDC	166.76	
551292200000	10A	miniature PCB mount relay	2 ch/over	220 VDC	297.86	
551480120000	7A	miniature PCB mount relay	4 ch/over	12 VAC	161.01	
551480240000	7A	miniature PCB mount relay	4 ch/over	24 VAC	161.01	
551481100000	7A	miniature PCB mount relay	4 ch/over	110 VAC	187.46	
551482400000	7A	miniature PCB mount relay	4 ch/over	230 VAC	177.11	
551490120000	7A	miniature PCB mount relay	4 ch/over	12 VDC	161.01	
551490240000	7A	miniature PCB mount relay	4 ch/over	24 VDC	161.01	
551490480000	7A	miniature PCB mount relay	4 ch/over	48 VDC	187.46	
551491100000	7A	miniature PCB mount relay	4 ch/over	110 VDC	177.11	
551492200000	7A	miniature PCB mount relay	4 ch/over	220 VDC	308.21	



55328...



55329...



9414SMA







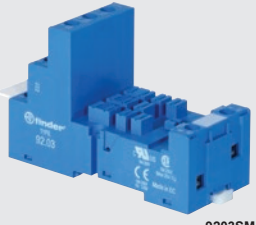











9434SMA














9402SPA

type	current	description	contact	coil voltage	price
55 series Miniature industrial plug-in relays (37.2 x 20.7 x 27.7 mm)					
Plug-in relays (55 series)					
<ul style="list-style-type: none"> • 2, 3 and 4 pole versions • AC and DC coil voltages • Plug-in or direct PCB mounting • Lockable test/override button (<i>plug-in version only</i>) • Mechanical flag indication of relay status (<i>plug-in version only</i>) 					
General application:					
- Switchboard installations, industrial automation panels, auxiliary relays, interfacing relays					
2 Changeover		<i>plug-in relays</i>			
553280120040	10A	miniature plug-in relay	2 changeover	12 VAC	144.91
553280240040	10A	miniature plug-in relay	2 changeover	24 VAC	144.91
553280360040	10A	miniature plug-in relay	2 changeover	36 VAC	170.21
553280480040	10A	miniature plug-in relay	2 changeover	48 VAC	170.21
553280600040	10A	miniature plug-in relay	2 changeover	60 VAC	170.21
553281100040	10A	miniature plug-in relay	2 changeover	110 VAC	170.21
553282300040	10A	miniature plug-in relay	2 changeover	240 VAC	161.01
553290120040	10A	miniature plug-in relay	2 changeover	12 VDC	144.91
553290240040	10A	miniature plug-in relay	2 changeover	24 VDC	144.91
553290360040	10A	miniature plug-in relay	2 changeover	36 VDC	170.21
553290480040	10A	miniature plug-in relay	2 changeover	48 VDC	170.21
553290600040	10A	miniature plug-in relay	2 changeover	60 VDC	170.21
553291100040	10A	miniature plug-in relay	2 changeover	110 VDC	161.01
553292200040	10A	miniature plug-in relay	2 changeover	220 VDC	292.11
4 Changeover		<i>plug-in relays</i>			
553480120040	7A	miniature plug-in relay	4 changeover	12 VAC	154.11
553480240040	7A	miniature plug-in relay	4 changeover	24 VAC	154.11
553480360040	7A	miniature plug-in relay	4 changeover	36 VAC	180.56
553480480040	7A	miniature plug-in relay	4 changeover	48 VAC	180.56
553480600040	7A	miniature plug-in relay	4 changeover	60 VAC	180.56
553481100040	7A	miniature plug-in relay	4 changeover	110 VAC	180.56
553482400040	7A	miniature plug-in relay	4 changeover	240 VAC	170.21
553490120040	7A	miniature plug-in relay	4 changeover	12 VDC	154.11
553490240040	7A	miniature plug-in relay	4 changeover	24 VDC	154.11
553490360040	7A	miniature plug-in relay	4 changeover	36 VDC	180.56
553490480040	7A	miniature plug-in relay	4 changeover	48 VDC	180.56
553490600040	7A	miniature plug-in relay	4 changeover	60 VDC	180.56
553491100040	7A	miniature plug-in relay	4 changeover	110 VDC	170.21
553492200040	7A	miniature plug-in relay	4 changeover	220 VDC	301.31
Other configurations: <i>replace last two digits with following: (e.g.553280120074)</i>					
54	LED	internal LED indicator for		AC relays	28.75
74	LED	internal LED indicator for		DC relays	28.75
Sockets and accessories for 55 series relays					
type	description			for relay	price
PCB mount					
9412SMA	2 pole PCB mount socket		(solder terminal)	5532	43.71
9414SMA	4 pole PCB mount socket		(solder terminal)	5534	44.86
Flange mount					
9432SMA	2 pole flange mount socket		(solder terminal)	5532	42.56
9434SMA	4 pole flange mount socket		(solder terminal)	5534	43.71
Surface/DIN mount					
9402SPA*	surface/DIN mount socket + retaining clip		(screw terminal)	5532	98.91
9404SPA*	surface/DIN mount socket + retaining clip		(screw terminal)	5534	110.41
94P4SPA*	surface/DIN mount socket + retaining clip		(push-in term)	5532/4	143.76
05627	DIN rail mountable support bracket for			5532/34	30.02
* Accepts plug-in LED, diode, timing modules (plugs directly into socket) see page J-8					
09406	jumper link/bridge bar for sockets		(8 way)	9402/04	51.76
09456	jumper link/bridge bar for sockets		(8 way)	94P4	74.76
09471	retaining clip for relays		(10 pcs)	94 series	43.71
46392/PS	sheet marking tags (mounts onto retain clip/holder)		(48 pcs)	940/P2/4	87.41
09700	tag holder for 46392/PS (mounts onto socket)		(10 pcs)	940/P2/4	30.59

	type	current	description		contact configuration	coil voltage	price	
 5632...  5634...  9614SMA  9604SMA  6233...  9213SMA  9203SMA	56 series		Miniature power relays		<i>(37.2 x 20.7(2 pole) 40.8(4 pole) x 27.7 mm)</i>			
	<ul style="list-style-type: none"> • Faston 187, 4.8 x 0.5 mm termination • Mechanical flag indication of relay status • Lockable test/override button 							
	563280120040	12A	miniature power relay	2 changeover	12 VAC	181.71		
	563280240040	12A	miniature power relay	2 changeover	24 VAC	181.71		
	563280480040	12A	miniature power relay	2 changeover	48 VAC	207.01		
	563281100040	12A	miniature power relay	2 changeover	110 VAC	207.01		
	563282400040	12A	miniature power relay	2 changeover	240 VAC	207.01		
	563290120040	12A	miniature power relay	2 changeover	12 VDC	181.71		
	563290240040	12A	miniature power relay	2 changeover	24 VDC	181.71		
	563290480040	12A	miniature power relay	2 changeover	48 VDC	207.01		
	563290600040	12A	miniature power relay	2 changeover	60 VDC	207.01		
	563291100040	12A	miniature power relay	2 changeover	110 VDC	207.01		
	563292200040	12A	miniature power relay	2 changeover	220 VDC	328.92		
	563480120040	12A	miniature power relay	4 changeover	12 VAC	333.52		
	563480240040	12A	miniature power relay	4 changeover	24 VAC	333.52		
	563480480040	12A	miniature power relay	4 changeover	48 VAC	355.37		
	563481100040	12A	miniature power relay	4 changeover	110 VAC	355.37		
	563482400040	12A	miniature power relay	4 changeover	240 VAC	355.37		
	563490120040	12A	miniature power relay	4 changeover	12 VDC	333.52		
	563490240040	12A	miniature power relay	4 changeover	24 VDC	333.52		
563490480040	12A	miniature power relay	4 changeover	48 VDC	355.37			
563490600040	12A	miniature power relay	4 changeover	60 VDC	355.37			
563491100040	12A	miniature power relay	4 changeover	110 VDC	355.37			
563492200040	12A	miniature power relay	4 changeover	220 VDC	480.72			
Other configurations: <i>replace last two digits with following: (e.g 56328012004074)</i>								
54	LED	internal LED indicator for	AC relays	60.95				
74	LED	internal LED indicator for	DC relays	60.95				
PCB terminals: replace 3rd digit (3) with a (4) (e.g.564280120040)								
Sockets and accessories for 56 series relays							for relay	
9612SMA	2 pole PCB mount socket	<i>(solder terminal)</i>	5632	47.16				
9614SMA	4 pole PCB mount socket	<i>(solder terminal)</i>	5634	55.21				
9602SPA*	surface/DIN mount socket + retaining clip	<i>(screw terminal)</i>	5632	118.46				
9604SMA*	surface/DIN mount socket + retaining clip	<i>(screw terminal)</i>	5634	141.46				
05627	DIN rail mountable support bracket		5632	30.02				
05647	DIN rail mountable support bracket		5634	31.86				
* Accepts plug-in LED, diode, timing modules (plugs directly into socket) see page J-8 (per pack)								
095004	spare marking tags for sockets	<i>(10pcs)</i>	5632	24.50				
090002	spare marking tags for sockets	<i>(10pcs)</i>	5634	24.50				
62 series		Plug-in power relays		<i>(49.1 x 38.2 x 35.8 mm)</i>				
<ul style="list-style-type: none"> • Lockable test/override button • Mechanical flag indication of relay status • Plug-in or faston 187 (4.8 x 0.5 mm) termination • Reinforced insulation between coil and contacts to EN60335-1 								
623380120040	16A	plug-in industrial power relay	3 changeover	12 VAC	223.11			
623380240040	16A	plug-in industrial power relay	3 changeover	24 VAC	223.11			
623380480040	16A	plug-in industrial power relay	3 changeover	48 VAC	243.81			
623381100040	16A	plug-in industrial power relay	3 changeover	110 VAC	243.81			
623382400040	16A	plug-in industrial power relay	3 changeover	240 VAC	236.91			
623384000040	16A	plug-in industrial power relay	3 changeover	400 VAC	289.81			
623390120040	16A	plug-in industrial power relay	3 changeover	12 VDC	223.11			
623390240040	16A	plug-in industrial power relay	3 changeover	24 VDC	223.11			
623390480040	16A	plug-in industrial power relay	3 changeover	48 VDC	243.81			
623391100040	16A	plug-in industrial power relay	3 changeover	110 VDC	236.91			
623392200040	16A	plug-in industrial power relay	3 changeover	220 VDC	339.27			
Other configurations: <i>replace last two digits with following: (e.g 623380120074)</i>								
54	LED	internal LED indicator for AC relays	53.00					
74	LED	internal LED indicator for DC relays	53.00					
Sockets and accessories for 62 series relays							for relay	
9213SMA	3 pole PCB mount socket	<i>(solder terminal)</i>	6233	47.16				
9233SMA	3 pole flange mount socket	<i>(solder terminal)</i>	6233	47.16				
9203SMA	3 pole surface/DIN mount socket	<i>(screw terminal)</i>	6233	157.56				
06207	DIN rail mountable support bracket	<i>(top mount)</i>	6233	30.02				
06208	DIN rail mountable support bracket	<i>(rear mount)</i>	6233	30.02				

	type	current	pins	description	contact configuration	coil voltage	price
	6012...						
	6013...						
	9015						
	9013						
	9020SMA						
	9026SMA						
	9027SMA						
	9048SMA						
	9003SMA						
60 series General purpose plug-in relays (54.2 x 32.5 x 36.4 mm)							
<ul style="list-style-type: none"> • AC and DC coil voltages • Lockable test/override button • 8 pin (2 pole) 11pin (3 pole) round pin plug-in termination • Current sensing coil available: AC: 0.1 - 2.5A / DC: 0.1 - 2.0A • Mechanical flag indication of relay status and manual override facility 							
	601280120040	10A	8 pin	plug-in industrial relay	2 ch/over	12 VAC	201.26
	601280240040	10A	8 pin	plug-in industrial relay	2 ch/over	24 VAC	201.26
	601280360040	10A	8 pin	plug-in industrial relay	2 ch/over	36 VAC	221.96
	601280480040	10A	8 pin	plug-in industrial relay	2 ch/over	48 VAC	221.96
	601280600040	10A	8 pin	plug-in industrial relay	2 ch/over	60 VAC	221.96
	601281100040	10A	8 pin	plug-in industrial relay	2 ch/over	110 VAC	221.96
	601282400040	10A	8 pin	plug-in industrial relay	2 ch/over	240 VAC	215.06
	601284000040	10A	8 pin	plug-in industrial relay	2 ch/over	400 VAC	269.11
	601290120040	10A	8 pin	plug-in industrial relay	2 ch/over	12 VDC	201.26
	601290240040	10A	8 pin	plug-in industrial relay	2 ch/over	24 VDC	201.26
	601290360040	10A	8 pin	plug-in industrial relay	2 ch/over	36 VDC	221.96
	601290480040	10A	8 pin	plug-in industrial relay	2 ch/over	48 VDC	221.96
	601290600040	10A	8 pin	plug-in industrial relay	2 ch/over	60 VDC	221.96
	601291100040	10A	8 pin	plug-in industrial relay	2 ch/over	110 VDC	215.06
	601292200040	10A	8 pin	plug-in industrial relay	2 ch/over	220 VDC	318.56
	601380120040	10A	11 pin	plug-in industrial relay	3 ch/over	12 VAC	208.16
	601380240040	10A	11 pin	plug-in industrial relay	3 ch/over	24 VAC	208.16
	601380360040	10A	11 pin	plug-in industrial relay	3 ch/over	36 VAC	227.71
	601380480040	10A	11 pin	plug-in industrial relay	3 ch/over	48 VAC	227.71
	601380600040	10A	11 pin	plug-in industrial relay	3 ch/over	60 VAC	227.71
	601381100040	10A	11 pin	plug-in industrial relay	3 ch/over	110 VAC	227.71
	601382400040	10A	11 pin	plug-in industrial relay	3 ch/over	240 VAC	221.96
	601384000040	10A	11 pin	plug-in industrial relay	3 ch/over	400 VAC	274.86
	601390120040	10A	11 pin	plug-in industrial relay	3 ch/over	12 VDC	208.16
	601390240040	10A	11 pin	plug-in industrial relay	3 ch/over	24 VDC	208.16
	601390360040	10A	11 pin	plug-in industrial relay	3 ch/over	36 VDC	227.71
	601390480040	10A	11 pin	plug-in industrial relay	3 ch/over	48 VDC	227.71
	601390600040	10A	11 pin	plug-in industrial relay	3 ch/over	60 VDC	227.71
	601391100040	10A	11 pin	plug-in industrial relay	3 ch/over	110 VDC	221.96
	601392200040	10A	11 pin	plug-in industrial relay	3 ch/over	220 VDC	324.32
Other configurations: replace last two digits with following: (e.g. 6012801200 54)							
	54	LED		internal LED indicator for		AC relays	58.65
	74	LED		internal LED indicator for		DC relays	58.65
	46392/PS			sheet marking tags (mounts onto retain clip/holder) (48 pcs)		6012/3	87.41
Sockets and accessories for 60 series relays							
						for relay	
PCB mount							
	9012		2 pole flange mount socket		(solder terminal)	6012	36.81
	9013		3 pole flange mount socket		(solder terminal)	6013	37.96
Flange mount							
	9014		2 pole PCB mount socket		(diameter 20.5 mm)	6012	36.81
	90141		3 pole PCB mount socket		(diameter 17.5 mm)	6013	36.81
	9015		2 pole PCB mount socket		(diameter 22.0 mm)	6012	37.96
	90151		3 pole PCB mount socket		(diameter 19.0 mm)	6013	37.96
Surface/DIN mount							
	9020SMA		surface/DIN mount socket (standard)		(screw terminal)	6012	93.16
	9021SMA		surface/DIN mount socket (standard)		(screw terminal)	6013	103.51
	9022SMA		surface/DIN mount socket (oval)		(screw terminal)	6012	64.41
	9023SMA		surface/DIN mount socket (oval)		(screw terminal)	6013	70.16
	9026SMA		surface/DIN mount socket (square)		(screw terminal)	6012	95.46
	9027SMA		surface/DIN mount socket (square)		(screw terminal)	6013	106.96
	9048SMA		surface/DIN mount socket (rectangular)		(screw terminal)	6012	116.16
	9049SMA		surface/DIN mount socket (rectangular)		(screw terminal)	6013	131.11
	9002SMA*		surface/DIN mount socket (for modules)		(screw terminal)	6012	102.36
	9003SMA*		surface/DIN mount socket (for modules)		(screw terminal)	6013	112.71
	09006		jumper link/bridge bar for sockets		(6 way)	9002/3	69.01
	090002		spare marking tag for sockets		(10 pcs)	9002/3	24.50
* Accepts plug-in LED, diode, timing modules (plugs directly into socket) see page J-8							

Timers & control relays

	type	current	description	contact configuration	coil voltage	price
	65 series		Power relays	<i>(43.3 x 32.2 x 36.6 mm)</i>		
	<ul style="list-style-type: none"> • Flange mount with Faston 250 (6.3 x 0.5 mm) termination • Reinforced insulation between coil and contacts to EN60335-1 					
	20A - 1 NO + 1 NC relay					
	30A - 1 Normally open relay		≥ 3 mm contact gap			
	Accessories for 65 series relays					
	66 series		Power relays - 2 pole	<i>(31 x 51.5 x 33.5 mm)</i>		
	<ul style="list-style-type: none"> • Faston 250 (6.3 x 0.8 mm) termination • 8 mm, 6kV (1.2/50 μs) isolation, coil-contacts 					
	2 pole changeover relay - 30A NO - 10A NC					
	Accessories for 66 series relays					
	67 series		High power relays - 2/3 pole	<i>(57.5 x 33 x 51.5 mm)</i>		
	<p>High power PCB mount relays for use in the photovoltaic sector</p> <ul style="list-style-type: none"> • DC coil voltage - with only 170mW holding power • Contact gap ≥ 3 mm (according to VDE 0126-1-1, EN 62109-1, EN 62109-2) • Suitable for use at ambient temperatures up to 85 °C (with energy-saving coil energisation) 					
	50A - 2 pole NO relays					
	68 series		High power 2 pole relays	<i>(57.5 x 52.2 x 52.2 mm)</i>		
	<p>High power PCB mount relays for use in the photovoltaic sector</p> <ul style="list-style-type: none"> • DC coil voltage - with only 700mW holding power • Contact gap ≥ 3.6 mm (according to VDE 0126-1-1, EN 62109-1, EN 62109-2) • Suitable for use at ambient temperatures up to 85 °C 					
	100A - 2 pole NO relays					

new



9902...



9902...59



9902...99



9902...09



8630...



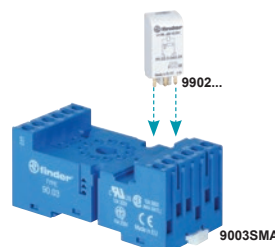
86000...

Plug-in LED / diode / timer modules

Plug-in modules are convenient add-on devices for relays which offer LED indication (*for ease of viewing relay status from a distance*), diode protection, RC circuits, bypass and timing facilities for all socket-mounted plug-in relays. The modules simply plug into specific sockets to enhance the relays functionality.

type	LED colour	description	voltage	price
Diode module				
Recovery diode modules are used for DC applications, reverse voltage peaks of the coil are short circuited by the recovery diode, release time is increased by a factor of 3.				
9902300000	–	diode module (<i>standard polarity A1/+</i>)	6...220 VDC	35.66
LED module				
Used for AC and DC, the LED indicator illuminates when the relay coil is energised. It is essential to connect "+" to terminal A1 in DC applications				
9902002459	green	plug-in LED module	6...24 VAC/DC	52.91
9902006059	green	plug-in LED module	28...60 VAC/DC	54.06
9902023059	green	plug-in LED module	110...240 VAC/DC	52.91
LED + diode module				
Recovery diode + LED module are used for DC, reverse voltage peaks are short circuited by the recovery diode (<i>positive to terminal A1</i>), release time is increased by approximately 3 times, if this is undesirable use a Varistor or RC module. LED indicator illuminates when coil is energised.				
9902902499	green	plug-in LED + diode module	6...24 VDC	58.66
9902906099	green	plug-in LED + diode module	28...60 VDC	62.11
9902922099	green	plug-in LED + diode module	110...220 VDC	58.66
LED + Varistor module				
LED + Varistor modules are used for AC and DC coils, reverse voltage peaks of the relay coil are limited by the Varistor to approximately 2.5 times the nominal voltage of the supply. Insignificant increase in release times.				
9902002498	green	plug-in LED + Varistor module	6...24 VAC/DC	71.31
9902006098	green	plug-in LED + Varistor module	28...60 VAC/DC	72.46
9902023098	green	plug-in LED + Varistor module	110...240 VAC/DC	71.31
RC circuit module				
RC circuit modules are used for AC and DC applications. The reverse voltage peaks of the coil are limited by the RC module to approximately 2.5 times the nominal supply voltage. Insignificant increase in release times.				
9902002409	green	plug-in RC module fo AC and DC lines	6...24 VAC/DC	74.76
9902006009	green	plug-in RC module fo AC and DC lines	28...60 VAC/DC	75.91
9902023009	green	plug-in RC module fo AC and DC lines	110...240 VAC/DC	74.76
Residual current bypass module				
Bypass modules are used in applications for 110 and 220 VAC relays with a tendency to fail to release, mainly caused by residual currents from AC proximity switches or inductive coupling caused by long parallel lying AC control lines.				
9902823007	–	plug-in residual current bypass module	110...240 VAC	58.66
Timer modules				
<ul style="list-style-type: none"> • Multi-function, multi-voltage timer module • Time range 1s, 10s, 100s, 10m, 100m, 10hr, 100hr (<i>adjustable</i>) • Plugs directly into sockets converting standard relays into timing devices 				
Note: Can be used with 9002/3 , 9203 , 9604 sockets				
863000240000	green	multi-range, bi-functional timer module	12...24 VAC/DC	462.32
863082400000	green	multi-range, bi-functional timer module	230 VAC	519.82
860002400000	green	multi-range, multi-function timer module	12...240 VAC/DC	815.38

Example of mounting for plug-in module



39 series Master**INTERFACE** - relay interface modules slimline

- Space saving 6.2 mm wide
- Connections for 16 way jumper links (*bridging bars*)
- Integral LED coil indication and protection circuit
- Secure relay retention with easy ejection clip
- DIN 35 rail mounting (EN60715)

type	current voltage	operating voltage	switching	contact	type terminal	description	price
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MasterPLUS series - Relay interface modules

- For general use in any type of system or application
- Provides extra protection for the output circuit thanks to the replaceable fuse module
- Can be used for input interface applications between auxiliary contacts, sensors etc. and controllers, PLCs or motors or for output interface between PLCs controllers and relays, solenoids etc.
- Accepts output fuse module (**09363**) for quick/easy space efficient protection of output circuits

MasterPLUS - EMR **electromechanical relays** (H) 87 x (W) 6.2 x (D) 91 mm

393100120060	6A	12 VAC/DC	250/400 VAC	1 ch/over	screw	relay interface module	262.21
393100240060	6A	24 VAC/DC	250/400 VAC	1 ch/over	screw	relay interface module	262.21
396100240060	6A	24 VAC/DC	250/400 VAC	1 ch/over	push-in	relay interface module	262.21
393182300060	6A	230 VAC	250/400 VAC	1 ch/over	screw	relay interface module	345.02

MasterPLUS - SSR **solid state relays**

393070129024	6A	12 VDC	1.5...33 VDC	1 NO	screw	relay interface module	542.82
393070249024	6A	24 VDC	1.5...33 VDC	1 NO	screw	relay interface module	542.82
396070249024	6A	24 VDC	1.5...33 VDC	1 NO	push-in	relay interface module	542.82
396070248240	2A	24 VDC	12...275 VAC	1 NO	push-in	relay interface module	570.42

Plug-in output fuse module - for Master**PLUS** interface - accepts std 20 x 5 mm fuses up to 6A, 250 V
 - Quick easy plug-in connection to socket (fuse condition visibility with inspection window)

09363	fuse	-	plug-in	output fuse module for Master PLUS interface	80.51
093630024	fuse	24 VAC/DC	plug-in	output fuse module LED fuse status indicator	104.66
093638230	fuse	230 VAC	plug-in	output fuse module LED fuse status indicator	104.66

MasterINPUT series - Relay interface module

- Interface between auxiliary contacts, sensors, limit switches and PLCs/controllers
- Permits full termination of input devices (*no additional terminals required*)
- Quick and easy distribution of supply voltage with jumper links
- Gold plated output contacts for improved compatibility with low energy PLC inputs

MasterINPUT - EMR **electromechanical relays**

394100245060	6A	24 VAC/DC	250/400 VAC	1 ch/over	screw	relay interface module	318.56
397100245060	6A	24 VAC/DC	250/400 VAC	1 ch/over	push-in	relay interface module	318.56
394182305060	6A	230 VAC	250/400 VAC	1 ch/over	screw	relay interface module	401.37

MasterINPUT - SSR **solid state relays**

394000249024	6A	24 VAC/DC	1.5...33 VDC	1 NO	screw	relay interface module	575.02
397070249024	6A	24 VDC	1.5...33 VDC	1 NO	push-in	relay interface module	542.82
394000248240	2A	24 VAC/DC	12...275 VAC	1 NO	screw	relay interface module	596.87

MasterOUTPUT series - Relay interface module

- Interface between PLCs / controllers and output devices, valves, motors etc...
- Quick and easy distribution of supply voltage with jumper link

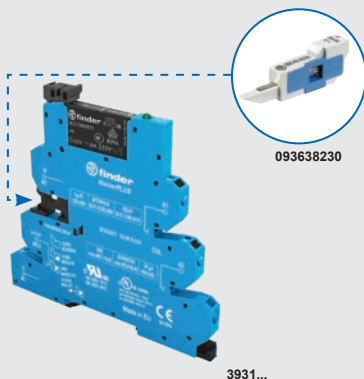
MasterOUTPUT - EMR **electromechanical relays**

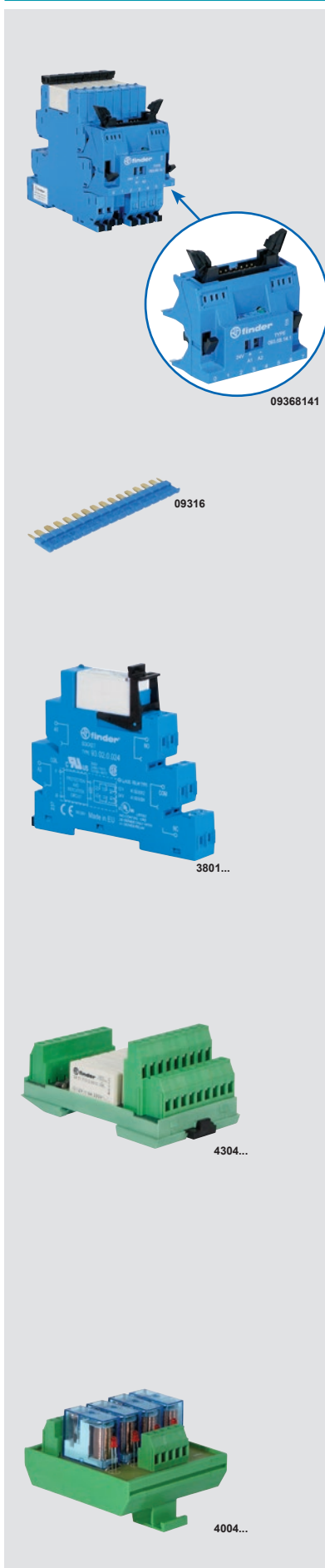
392100240060	6A	24 VAC/DC	250 / 400 VAC	1 NO	screw	relay interface module	262.21
395100240060	6A	24 VAC/DC	250 / 400 VAC	1 NO	push-in	relay interface module	262.21
392182300060	6A	230 VAC	250 / 400 VAC	1 NO	screw	relay interface module	345.02

MasterOUTPUT - SSR **solid state relays**

392070129024	6A	12 VDC	1.5...33 VDC	1 NO	screw	relay interface module	542.82
392070249024	6A	24 VDC	1.5...33 VDC	1 NO	screw	relay interface module	542.82
395070249024	6A	24 VDC	1.5...33 VDC	1 NO	push-in	relay interface module	542.82
392082309024	2A	230 VAC	1.5...33 VDC	1 NO	screw	relay interface module	575.02

Accessories for **39 series** interface modules see page **J-10**





Accessories for 39 series relay interface modules

type	No. of ways	colour	description		price
16-way jumper link (bridging bar)					
- Possibility of multiple connection, side by side					
09316	16 way	blue	plug-in	plug-in jumper link (bridge bar) for interfaces	65.56
093160	16 way	black	plug-in	plug-in jumper link (bridge bar) for interfaces	65.56
093161	16 way	red	plug-in	plug-in jumper link (bridge bar) for interfaces	65.56
Separator dual-purpose (1.8 mm or 6.2 mm separation)					
- Useful for the visual separation of different groups or voltages of neighbouring interfaces,					
09360	partition			plastic separator for interface modules (1,8 or 6.2 mm separation)	22.08
Terminal doubler					
- For push-in terminal sockets only					
- Max. wire size 2 x 1.5 mm ²					
09363	doubler	6 A/300V		terminal doubler (for two cables) push-in terminal sockets	80.51
MasterADAPTOR - interconnects 8 interface modules (A1/A2 and power supply terminals)					
- Connection of up to 8 interface modules to PLC outputs via 14-pole ribbon cable					
09368141	adaptor	24 VDC		MasterADAPTOR easy connection of up to 8 interface modules	504.87
09300020	cable	14 pole		PLC cable with 14 pole ribbon connector on end 2 meters	776.28
46392/PS	marking	6 x 12 mm		sheet of 48 marking tags (mounts onto retain clip)	87.41

38 series - Relay interface module (1 pole 16A / 2 pole 8A) (H) 90 x (W) 14 x (D)77 mm

- Sensitive DC coil or AC/DC coil versions
- Integral coil indication and protection circuit
- Easy ejection of relay using retaining clip
- DIN rail mounting (EN 60715)

type	switch current	supply voltage	switching voltage	contact	type terminal	description	price
Electromechanical relays							
380170240050*	16A	24 VDC	250 / 400 VAC	1 ch/over	screw	relay interface module	341.57
380100240060*	16A	24 VAC/DC	250 / 400 VAC	1 ch/over	screw	relay interface module	435.87
380102400060*	16A	230 VAC	250 / 400 VAC	1 ch/over	screw	relay interface module	466.92
* Currents > 10A, contact terminals must be connected in parallel							
385170240050	6A	24 VDC	250 / 400 VAC	1 ch/over	screw	slim interface module	251.86
385270120050	8A	12 VDC	250 / 400 VAC	2 ch/over	screw	relay interface module	346.17
385270240050	8A	24 VDC	250 / 400 VAC	2 ch/over	screw	relay interface module	346.17
385200240060	8A	24 VAC/DC	250 / 400 VAC	2 ch/over	screw	relay interface module	443.92
385202400060	8A	230 VAC	250 / 400 VAC	2 ch/over	screw	relay interface module	474.97

Solid state relays

383170249024	5A	24 VDC	1.5...24 VDC	1 NO	screw	relay interface module	661.28
383170248240	3A	24 VDC	12...275 VAC	1 NO	screw	relay interface module	642.88
09308	8 way	blue	plug-in			jumper link/bridge bar for interfaces	62.11

4/8 way relay interface modules

- Incorporates LED relay status indication and diode protected coils
- Option of positive or negative common modules

4304 series relay interface module 4-way (H) 90 x (W) 54 x (D) 30 mm (with relays)

• 4-way DIN rail mounting relay interface module (43 series relay 10A)							
43049024+	10A	24 VDC	up to 400V	ch/over	4 way	fixed relay interface	581.92
43049024-	10A	24 VDC	up to 400V	ch/over	4 way	fixed relay interface	526.72

34 series relay interface module 8-way (H) 90 x (W) 54 x (D) 45 mm (with relays)

• 8-way DIN rail mounting relay interface module (34 series relay 6A)							
34089024+	6A	24 VDC	up to 400V	ch/over	8 way	fixed relay interface	1 320.25
34089024-	6A	24 VDC	up to 400V	ch/over	8 way	fixed relay interface	1 198.34

4004 series relay interface module 4-way (H) 76 x (W) 71 x (D) 55 mm (with relays)

• 4-way DIN rail mounting relay interface module (40 series relay 10A)							
40049024+	10A	24 VDC	up to 400V	ch/over	4 way	fixed relay interface	899.33
40048230-	10A	230 VAC	up to 400V	ch/over	4 way	fixed relay interface	892.43

Note: (-) denotes negative common and (+) positive common



2232...



2234...



02235



192100240000

Modular contactors 25A

- Modular DIN rail mount
- Auto - On - Off selector
- Continuous duty coils and contacts
- AC/DC silent coil (*with varistor protection*)
- Mechanical flag and LED indicators as standard
- Clip-on auxiliary contact module available (*1NO+1NC or 2NO*)
- Protective separation (*reinforced insulation*) between coil and contacts

General applications:

- Pump control
- Office lighting control
- Garden and night lighting
- Bathrooms lighting control
- Streetlights and car park lighting
- Hotel room energy enabling units

type	rated power		description	modules width in 17.5 mm	contact configuration	coil voltage AC/DC	price
	AC-1 (A)	AC-3 kW (230V)					

22 series - Two pole modular contactor 25A (H) 89 x (W) 17.5 (D) 61 mm

• Compact - one module (*17.5 mm wide*)

223200124340	25A	1.0 kW	modular contactor	1	2 NO	12V	625.62
223200244340	25A	1.0 kW	modular contactor	1	2 NO	24V	625.62
223200484340	25A	1.0 kW	modular contactor	1	2 NO	48V	625.62
223202304340	25A	1.0 kW	modular contactor	1	2 NO	230V	625.62
223200124440	25A	1.0 kW	modular contactor	1	2 NC	12V	625.62
223200244440	25A	1.0 kW	modular contactor	1	2 NC	24V	625.62
223202304440	25A	1.0 kW	modular contactor	1	2 NC	230V	625.62
223200124540	25A	1.0 kW	modular contactor	1	1NO + 1NC	12V	625.62
223200244540	25A	1.0 kW	modular contactor	1	1NO + 1NC	24V	625.62
223200484540	25A	1.0 kW	modular contactor	1	1NO + 1NC	48V	625.62
223202304540	25A	1.0 kW	modular contactor	1	1NO + 1NC	230V	625.62

AC-3 single phase motor rating at 230 VAC

22 series - Four pole modular contactor 25A (H) 89 x (W) 35 (D) 61 mm

• Compact - two modules (*35 mm wide*)

223400124340	25A	4.0 kW	modular contactor	2	4 NO	12V	857.93
223400244340	25A	4.0 kW	modular contactor	2	4 NO	24V	857.93
223402304340	25A	4.0 kW	modular contactor	2	4 NO	230V	857.93
223400124740	25A	4.0 kW	modular contactor	2	3NO + 1NC	12V	857.93
223400244740	25A	4.0 kW	modular contactor	2	3NO + 1NC	24V	857.93
223402304740	25A	4.0 kW	modular contactor	2	3NO + 1NC	230V	857.93
223400124640	25A	4.0 kW	modular contactor	2	2NO + 2NC	12V	857.93
223400244640	25A	4.0 kW	modular contactor	2	2NO + 2NC	24V	857.93
223402304640	25A	4.0 kW	modular contactor	2	2NO + 2NC	230V	857.93

Accessories for above modular contactors

Clip-on auxiliaries for above contactors (*8.8 mm wide*)

02235	6A	clip-on auxiliary contact block	0.5	1NO + 1NC	2232/4	425.52
02233	6A	clip-on auxiliary contact block	0.5	2 NO	2232/4	425.52
02218	jumper	bridge bar for 2 pole contactors	8-way	blue	2232	90.86
02226	jumper	bridge bar for 4 pole contactors	6-way	blue	2234	90.86
02001	adaptor	for chassis mounting contactors	1	adaptor	2232	6.22
01101	adaptor	for chassis mounting contactors	2	adaptor	2234	6.79
02209	spacer	rail mount heat dissipation	0.5	module	2232/4	18.41
46392/PS	marking tags (<i>sheet</i>)	mounts directly onto contactor		(48 pcs)	2232/4	87.41

19 series - Modular DIN rail mount relay (H) 84 x (W) 11.2 (D) 57 mm

Ideally suited for industrial control systems applications to control pumps, blowers or motor groups. Allows automatic control of pumps, blowers, groups of motors or in case of maintenance or failure, forcing the controlled load to "Off" or "On".

- 3 function selector switch
 - Auto: works as a monostable relay
 - Off: relay permanently OFF
 - On: relay permanently ON

- Slimline (*11.2 mm wide*) modular relay
- LED indication - auto-off-on selector
- DIN rail mounting

192100240000	10A	slimline	modular relay	1 changeover	24 VAC/DC	700.38
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2603...



2023...

Modular step relays

Allows you to perform up to 6 sequences to achieve maximum flexibility for every application.

General applications:

- Bedroom light control
- Living room light control
- Automation for blinds, grilles and shutters
- Lighting control in corridors (for hotels, offices and hospitals)

type	switch current	No. steps	description	contact configuration	coil voltage	price
26 series - Step relays (pulse "ON", pulse "OFF") (H) 46,6 x (W) 45 (D) 22 mm						
<ul style="list-style-type: none"> • AC coil • Panel mount • Base/chassis mounting • Screw terminal connections • Maximum pulse duration: 1 hour • Electrically separated coils and contact circuits 						
260380120000	10A	2 step	base mounting step relay	1NO+1NC	12 VAC	300.16
260380240000	10A	2 step	base mounting step relay	1NO+1NC	24 VAC	300.16
260381100000	10A	2 step	base mounting step relay	1NO+1NC	110 VAC	300.16
260382300000	10A	2 step	base mounting step relay	1NO+1NC	230 VAC	300.16
0269012	module for operating 26 series relays with			DC supply	12 VDC	225.41
0269024	module for operating 26 series relays with			DC supply	24 VDC	225.41

20 series - Modular step relays (H) 84 x (W) 17.5 x (D) 57 mm						
<ul style="list-style-type: none"> • AC and DC coils • Modular DIN rail mounting • Compact one module (17.5 mm) wide • Maximum pulse duration: 1 hour • Manual override/test button • Mechanical flag indicators of contact positions 						
202380120000	16A	2 step	modular pulse step relay	2 contact	12 VAC	488.77
202380240000	16A	2 step	modular pulse step relay	2 contact	24 VAC	488.77
202382300000	16A	2 step	modular pulse step relay	2 contact	230 VAC	488.77
202390120000	16A	2 step	modular pulse step relay	2 contact	12 VDC	488.77
202390240000	16A	2 step	modular pulse step relay	2 contact	24 VDC	488.77
202680120000	16A	3 step	modular pulse step relay	2 contact	12 VAC	488.77
202680240000	16A	3 step	modular pulse step relay	2 contact	24 VAC	488.77
202682300000	16A	3 step	modular pulse step relay	2 contact	230 VAC	488.77
202690120000	16A	3 step	modular pulse step relay	2 contact	12 VDC	488.77
202690240000	16A	3 step	modular pulse step relay	2 contact	24 VDC	488.77
202480120000	16A	4 step	modular pulse step relay	2 contact	12 VAC	488.77
202480240000	16A	4 step	modular pulse step relay	2 contact	24 VAC	488.77
202482300000	16A	4 step	modular pulse step relay	2 contact	230 VAC	488.77
202490120000	16A	4 step	modular pulse step relay	2 contact	12 VDC	488.77
202490240000	16A	4 step	modular pulse step relay	2 contact	24 VDC	488.77
202880120000	16A	4 step	modular pulse step relay	2 contact	12 VAC	488.77
202880240000	16A	4 step	modular pulse step relay	2 contact	24 VAC	488.77
202882300000	16A	4 step	modular pulse step relay	2 contact	230 VAC	488.77
202890120000	16A	4 step	modular pulse step relay	2 contact	12 VDC	488.77
202890240000	16A	4 step	modular pulse step relay	2 contact	24 VDC	488.77

20 series Sequence Table

Type	No of steps	Sequence			
		1	2	3	4
20.23	2				
20.26	3				
20.24	4				
20.28	4				



Okpac® SO series power relays

All Celduc SSRs (Solid State Relays) are fitted with back-to-back thyristors and employ 4th generation TMS² technology with a very long lifetime expectancy.

- Very high immunity according to IEC/EN 61000-4-4 (bursts) and IEC/EN 61000-4-5 (spikes)
- UL/cUL, VDE (EN 60950), IEC/EN 60947-4-3, CE marking
- Regulated input current
- EMC compatible for industrial environment
- Control status LED

Note: All current ratings are based on utilising SSRs with suitable heat sink.

type	thyristor rating	switching voltage	peak voltage	control voltage	I ² t	description	price
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SO9 series for resistive loads (AC-51) - heating (H) 58.5 x (W) 45 x (D) 30 mm

- Zero-cross switching specifically designed for resistive loads
- Input overvoltage protection

SO941460	12A	12 - 280 VAC	600V	3 - 32 VDC	128A ² s	solid state relay	446.22
SO942460	25A	12 - 280 VAC	600V	3 - 32 VDC	600A ² s	solid state relay	540.52
SO943460	40A	12 - 280 VAC	600V	3 - 32 VDC	1250A ² s	solid state relay	609.52
SO945460	50A	12 - 280 VAC	600V	3 - 32 VDC	2800A ² s	solid state relay	639.43
SO965460	60A	24 - 600 VAC	1200V	3.5 - 32 VDC	2800A ² s	solid state relay	727.98
SO967460	90A	24 - 600 VAC	1200V	3.5 - 32 VDC	7200A ² s	solid state relay	969.49

SO8 series for most load types - lamps and infrared (H) 58.5 x (W) 45 x (D) 30 mm

- Zero-cross switching with low zero-crossing level (<12V) for most loads
- Voltage protection on input (transil) and output (VDR)

DC control

SO842074	25A	12 - 275 VAC	600V	3 - 32 VDC	600A ² s	solid state relay	742.93
SO845070	50A	12 - 275 VAC	600V	3 - 32 VDC	2800A ² s	solid state relay	891.28
SO865070	50A	24 - 510 VAC	1200V	3.5 - 32 VDC	2800A ² s	solid state relay	1 062.64
SO867070	75A	24 - 510 VAC	1200V	3.5 - 32 VDC	7200A ² s	solid state relay	1 523.80
SO868070	95A	24 - 510 VAC	1200V	3.5 - 32 VDC	16200A ² s	solid state relay	2 095.37
SO869070	125A	24 - 510 VAC	1200V	3.5 - 32 VDC	22000A ² s	solid state relay	2 769.29

AC control

SO842974	25A	12 - 275 VAC	600V	20 - 265 VAC/DC	600A ² s	solid state relay	742.93
SO865970	50A	24 - 510 VAC	1200V	20 - 265 VAC/DC	2800A ² s	solid state relay	1 169.59
SO867970	75A	24 - 510 VAC	1200V	20 - 265 VAC/DC	7200A ² s	solid state relay	1 813.61
SO868970	95A	24 - 510 VAC	1200V	20 - 265 VAC/DC	16200A ² s	solid state relay	2 196.57
SO869970	125A	24 - 510 VAC	1200V	20 - 265 VAC/DC	22000A ² s	solid state relay	2 852.09

SO7 series for motor loads (AC-53) inductive loads and phase angle control applications

- Random switching solid state relay designed for high inductive loads, motors (AC-53)
- Large control voltage range 3.5-32 VDC with input current limiter
- Over-Voltage protection on input (transil) and output (RC and VDR)

DC control

SO765090	50A	24 - 510 VAC	1200V	3.5 - 32 VDC	2800A ² s	solid state relay	1 528.40
SO767090	75A	24 - 510 VAC	1200V	3.5 - 32 VDC	7200A ² s	solid state relay	2 091.92
SO768090	95A	24 - 510 VAC	1200V	3.5 - 32 VDC	16200A ² s	solid state relay	2 336.88

SOB series two phase SSRs

- Dual zero cross solid state relay with LED indication for each input
- Plug-in control terminals (connector to be ordered separately)

SOB9 designed for resistive loads

SOB965660	2 x 50A	24 - 600 VAC	1200V	10 - 30 VDC	2500A ² s	solid state relay	2 846.34
1Y042715				plug-in input screw terminal for above dual phase relay			119.61

Accessories for above SO series relays

type	thermal rating	description	dimensions (mm)			price
			(H)	(W)	(D)	

Heatsinks SSR current ratings are based on sufficient cooling by the use of heatsinks

WF151200	2.2K/W	DIN rail mountable heatsink for SO series relays	80	45	73	434.72
WF108110	1.1K/W	DIN rail mountable heatsink for SO series relays	98	90	81	625.62
WF115100	0.9K/W	DIN rail mountable heatsink for SO series relays	90	110	100	1 953.92
5TH23000	pads	thermal transfer pads for mounting SO solid state relays onto heat sinks				14.49
1LD12020	adaptor	adaptor for direct mounting of SO relays on DIN rail				128.81



Celpac® SU series power relays

Pluggable control terminals

All **Celduc SSRs (Solid State Relays)** are fitted with back-to-back thyristors and employ 4th generation TMS² technology with a very long life expectancy.

- Cost-effective, reliable and compact solution (*22.5 mm pitch SSR solution*)
- Mounting configuration compatible with all standard hockey puck style relays
- Over-voltage protection on input (*transil*)
- IP20 terminal protection cover (*removable*)
- Control status LED indication

Note: Current ratings are based on utilising SSRs with suitable heat sink.

type	thyristor rating	switching voltage	peak voltage	control voltage	I ² t	description	price
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SU9 series *for resistive loads (AC-51) - heating* (H) 90 x (W) 22.5 x (D) 42 mm

- Zero-cross switching specifically designed for resistive loads

SU942460	25A	12 - 280 VAC	600V	3 - 32 VDC	600A ² s	solid state relay	555.47
SU963460	35A	24 - 600 VAC	1200V	3.5 - 32 VDC	882A ² s	solid state relay	701.53
SU965460	50A	24 - 600 VAC	1200V	3.5 - 32 VDC	1680A ² s	solid state relay	750.98
SU967460	75A	24 - 600 VAC	1200V	3.5 - 32 VDC	7200A ² s	solid state relay	998.24

SU8 series *for most load types - lamps and infrared* (H) 90 x (W) 22.5 x (D) 42 mm

- Zero-cross switching with low zero-crossing level (<12V) for most loads

DC control

SU842070	25A	12 - 275 VAC	600V	3 - 32 VDC	600A ² s	solid state relay	767.08
SU865070	50A	24 - 510 VAC	1200V	3.5 - 32 VDC	1680A ² s	solid state relay	1 094.84
SU867070	75A	24 - 510 VAC	1200V	3.5 - 32 VDC	7200A ² s	solid state relay	1 217.89

AC control

SU842970	25A	12 - 275 VAC	600V	160 - 240 VAC	600A ² s	solid state relay	757.88
SU865970	50A	24 - 510 VAC	1200V	160 - 240 VAC	1680A ² s	solid state relay	1 179.94

Accessories for SU series SSRs

ESUC **current monitoring module for SU range**

Mounted directly onto SU or SUL devices, this module provides diagnostic information for up to 5 heating elements in parallel.

ESUC0450	2 - 40A	8 - 30 VDC				current monitoring module	2 500.18
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Heatsinks *SSR current ratings are based on sufficient cooling by the use of heatsinks*

type	thermal rating	description	dimensions (mm)			price
			(H)	(W)	(D)	
WF311100	3.0K/W	DIN rail mountable heatsink for SU series relays	80	22.5	73	592.27
WF151200	2.2K/W	DIN rail mountable heatsink for SU series relays	80	45	73	434.72
WF112100	1K/W	DIN rail mountable heatsink for SU series relays	120	50	118	675.08
5TH24000	pads	thermal transfer pads for mounting SU relays onto heatsinks				18.18

SSR + Heatsink complete unit *ready for use*

type	thyristor rating	switching current 25°C	switching voltage	peak voltage	I ² t	control voltage	price
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SUL9 range *for resistive loads (AC-51) - heating* (H) 90 x (W) 22.5 x (D) 112 mm

SUL942460	25A	23A	12 - 280 VAC	600V	600A ² s	3 - 32 VDC	1 306.45
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SUL 8 range *- for most load types - lamps and infrared* (H) 90 x (W) 22.5 x (D) 112 mm

DC control

SUL842070	25A	23A	12 - 275 VAC	600V	600A ² s	3 - 32 VDC	1 695.16
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AC control (H) 90 x (W) 22.5 x (D) 112 mm

SUL842970	25A	23A	12 - 275 VAC	600V	600A ² s	160 - 240 VAC	1 078.74
SUL865970	50A	32A	24 - 510 VAC	1200V	1680A ² s	160 - 240 VAC	1 489.30

Fuse protection of solid state relays

Type 2 coordination: In case of short circuit the protection device must react before damaging the SSR, rendering the SSR suitable for further use.

Ultra-fast fuses must be used to protect solid state relays against short-circuits of the load. The I²t value of the fuse must be less than half of the typical I²t value of the solid state relay.



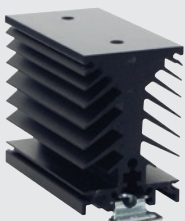
SO465420



SOM040200



SCI0251700



WF151200

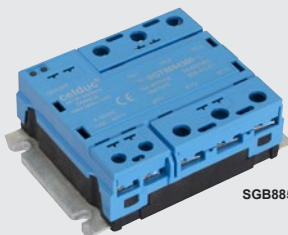
type	thyristor rating	switching voltage	peak voltage	control voltage	description	price
SO4 series - Proportional controllers (H) 58.5 x (W) 45 x (D) 30 mm						
<ul style="list-style-type: none"> Control status LED Overtoltage protection by varistor IP20 protection cover (removeable) 4-20mA / 0-10V / Potentiometer control Analog switching SSR for resistive load power control (phase angle principle) 						
4-20mA control current input						
SO465420	50A	200 - 480 VAC	-	4-20mA	proportional output SSR	2 480.63
SO467420	75A	200 - 480 VAC	-	4-20mA	proportional output SSR	2 847.49
SO468420	95A	200 - 480 VAC	-	4-20mA	proportional output SSR	3 189.05
SO469420	125A	200 - 480 VAC	-	4-20mA	proportional output SSR	3 849.18
0-10V Analog input						
Control supply voltage 8 - 30 VDC						
SO465020	50A	200 - 480 VAC	-	0-10V	proportional output SSR	2 729.04
SO468020	95A	200 - 480 VAC	-	0-10V	proportional output SSR	3 483.46
SO469020	125A	200 - 480 VAC	-	0-10V	proportional output SSR	4 180.39
Potentiometer analog input						
Control supply voltage 8 - 30 VDC						
SO465320	50A	200 - 480 VAC	-	resistance	proportional output SSR	2 729.04
SOM series - Latest MOSFET technology generation (H) 58.5 x (W) 45 x (D) 30 mm						
<ul style="list-style-type: none"> MOSFET technology Ultra low on-state resistance Built-in overvoltage protection DC solid state relays DC-in, DC-out Low output leakage current and control current Designed to switch DC loads e.g solenoid valves, brakes, indicators 						
SOM020100	20A	5 - 60 VDC	100V	3.5 - 32 VDC	DC output solid state relay	1 251.24
SOM040200	40A	5 - 110 VDC	200V	3.5 - 32 VDC	DC output solid state relay	1 680.21
IGBT technology for high DC voltage applications						
SCI series - Integrated reverse diode (H) 58.2 x (W) 45 x (D) 27 mm						
<ul style="list-style-type: none"> Ultra low output leakage current Low control current consumption Low conducted and radiated disturbances Latest high voltage IGBT technology generation Triggered control input to avoid linear control risks New innovative isolated driver ensures fast power transistor turn on and off ensuring low power transient 						
SCI0251700	25A	0 - 1700 VDC	1700V	4.5 - 32 VDC	DC output solid state relay	25 197.29
SCI0501200	50A	0 - 1200 VDC	1200V	4.5 - 32 VDC	DC output solid state relay	12 730.90
SCI100600	100A	0 - 600 VDC	600V	4.5 - 32 VDC	DC output solid state relay	12 477.90
SDI series - Integrated protection (H) 157 x (W) 68 x (D) 83 mm						
<ul style="list-style-type: none"> Overtoltage protection Load short circuit protection Overload temperature protection 						
SDI0501700	50A	24 - 940 VDC	1700V	24 - 48 VDC	DC output solid state relay	40 596.28
SDI0501710	50A	24 - 940 VDC	1700V	72- 110 VDC	DC output solid state relay	40 596.28
Accessories for above solid state relays						
type	thermal rating	description			dimensions (mm) (H) (W) (D)	price
Heatsinks SSR current ratings are based on sufficient cooling by the use of heatsinks						
WF151200	2.2K/W	rail mountable heatsink for SO,SC series relays			80 45 72	434.72
WF108110	1.1K/W	rail mountable heatsink for SO,SC series relays			98 90 78	625.62
WF115100	0.9K/W	rail mountable heatsink for SO,SC series relays			90 110 100	1 953.92
5TH23000	pads	thermal transfer pads for SO,SC solid state relays				14.49
1LD12020	adaptor	adaptor for mounting heat sinks on DIN rail				128.81



SMB8650510



SMT8620520



SGB8850200



SGT8670500

Three phase solid state relays

All three-phase solid state relays incorporate new high efficiency back to back thyristors on output with TMS² technology for a long lifetime expectancy and high surge currents.

- Three phase Zero Cross solid state relays
- Control status LED
- Conforms to: IEC/EN 60947-4-3, CEI 62314, UL-cUL

type	max. thyristor rating	switching current AC-51 (40°C)	switching voltage	peak voltage	control voltage	I ² t	price
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Sightpac series - Three phase solid state relays (H) 100 x (W) 45 x (D) 48 mm

SMB series - Two leg three phase solid state relay (New compact - 45 mm wide version)

Designed for controlling three-phase loads connected in star or delta (if balanced)
Two of the three phases are switched by the SSR the third phase being directly connected

- Three phase Zero Cross solid state relay with one direct connected phase
- Designed for resistive loads

SMB8650510	2 x 50A	3 x 30A	24 - 520 VAC	1600V	4 - 30 VDC	2800A ² s	3 161.45
SMB8670910	2 x 75A	3 x 35A	150 - 520 VAC	1600V	4 - 30 VDC	7200A ² s	3 952.68

SMT series - Three phase solid state relay - for controlling three-wire three-phase loads

- Three phase Zero Cross solid state relay (SSR) designed for most load types
- Plug-in control terminals and spring clamp power terminals

SMT8620520	3 x 25A	3 x 20A	24 - 520 VAC	1200V	4 - 30 VDC	380A ² s	2 325.38
SMT8628520	3 x 25A	3 x 20A	24 - 520 VAC	1200V	24 - 255 VAC/DC	380A ² s	2 339.18

Cel3pac series - Three phase solid state relays (H) 100 x (W) 76.5 x (D) 35.5 mm

SGB series - Two leg three phase solid state relays

Designed for controlling three-phase loads connected in star or delta (if balanced)
Two of the three phases are switched by the SSR with the third being directly connected

- Three phase Zero Cross solid state relay with one direct connected phase
- Designed for resistive loads

SGB8850200	2 x 50A	3 x 50A	24 - 640 VAC	1600V	4 - 30 VDC	2800A ² s	2 861.29
SGB8890200	2 x 125A	3 x 85A	24 - 640 VAC	1600V	4 - 30 VDC	22000A ² s	4 664.55

SGT series - Three phase solid state relays - for controlling three-wire three-phase loads

SGT9 series - Zero Cross for resistive loads (AC-51)

SGT9834300	3 x 35A	3 x 30A	24 - 660 VAC	1600V	4 - 30 VDC	1250A ² s	2 869.34
SGT9854300	3 x 50A	3 x 42A	24 - 660 VAC	1600V	4 - 30 VDC	2800A ² s	2 777.34
SGT9874300	3 x 75A	3 x 54A	24 - 660 VAC	1600V	4 - 30 VDC	7200A ² s	3 654.82

SGT8 series - Zero Cross for most load types

DC control

SGT8850200	3 x 50A	3 x 42A	24 - 640 VAC	1600V	4 - 30 VDC	2800A ² s	3 508.76
SGT8670500	3 x 75A	3 x 54A	24 - 520 VAC	1600V	4 - 30 VDC	7200A ² s	3 915.88
SGT8690500	3 x 125A	3 x 64A	24 - 520 VAC	1600V	4 - 30 VDC	22000A ² s	6 619.61

AC control

SGT8658500	3 x 50A	3 x 42A	24 - 520 VAC	1600V	24 - 255 VAC/DC	2800A ² s	3 516.82
SGT8678500	3 x 75A	3 x 54A	24 - 520 VAC	1600V	24 - 255 VAC/DC	7200A ² s	3 952.68
SGT8698500	3 x 125A	3 x 64A	24 - 520 VAC	1600V	24 - 255 VAC/DC	22000A ² s	5 453.48

SGTA series - Three phase proportional controllers (H) 75 x (W) 100 x (D) 46 mm

- Control supply voltage 8 - 30 VDC

4-20mA control current input

SGTA4654	3 x 50A	300 - 510 VAC	4 - 20mA	proportional output SSR			9 039.29
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0-10V analog input

SGTA4650	3 x 50A	300 - 510 VAC	0 - 10V	proportional output SSR			8 833.43
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Accessories for above three phase series relays

type	thermal rating	description	dimensions (mm)			price
			(H)	(W)	(D)	

Heatsinks SSR current ratings are based on sufficient cooling by the use of heatsinks

WF108110	1.1K/W	rail mountable heatsink for SM series relays	98	90	78	625.62
WF115100	0.9K/W	rail mountable heatsink for SM, SG, series relays	90	110	100	1 953.92
1K199000	cover	transparent terminal cover for relays SGB and SGT				110.41



TMP



TMM1



TMM1NFC



NFC



TMPL



TMST

Modular timing devices

- Wide range of functions and time scales
- High accuracy and repeatability of the time settings.
- Green LED indicator for power on
- Red LED indicator for relay state; flashing for delay and steady when relay energized
- Multi-time range: 1s/10s/60s/10m/60m/10h/1day/10days/ON or OFF
- Excellent time accuracy and stability
- Compact robust DIN rail mounting modular housing (*one 17.5 mm wide module*)
- 1 x changeover relay 8A 250 VAC

type	description	supply voltage	price
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On-delay timer - delay on make (*relay switches after preset time elapses*)

- Multi-time range: 1s/10s/60s/10m/60m/10h/1day/10days/ON or OFF
- Multi-voltage: 24...48 VDC / 24...240 VAC

TMP	multi-time range, multi-voltage, on-delay modular electronic timer		832.63
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Multi-function timer (*several selectable timing functions in one module*)

- Multi-voltage: 12...240 VAC/DC
- Multi-function: Selectable functions:
 - A On-delay (*relay only switches after preset time lapse*)
 - B Interval (*relay switches for preset time when energised*)
 - C Equal repeat (*start with OFF time first*)
 - D Equal repeat (*start with ON time first*)
 - E Pulsed controlled interval (*relay switches on close of external contact timing only begins on opening of contact*)
 - F Pulsed controlled Interval (*timing begins on closing of external contact*)
 - G Pulsed controlled Interval (*timing begins on opening of external contact*)
 - H Pulse cont. On-delay/Interval (*timing begins on opening and closing of external contact*)
 - I Step relay (*relay changes state on each closure of external contact*)
 - J Pulse generator (*unequal repeat adjustable OFF time/fixed 0.5 sec ON time*)

TMM1	multi-time range, multi-voltage, multi-function modular elect. timer	12 - 240 VAC/DC	1 022.39
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NFC programmability Multi-function Timer (*without front adjustable knob*)

- 40 selectable functions
- Counter and hour counter included
- Simple, fast and intuitive programming
- Very high accuracy and repeatability of settings
- Programmable via smartphone or tablet with NFC technology and APP
- Access to settings can be protected by setting a 4-digit password via the App
- Programming via NFC ensures excellent accuracy in time settings and tripping thresholds



Scan to watch video

TMM1NFC	multi-time range, multi-voltage, multi-func. mod. elect. timer (NFC)	12 - 240 VAC/DC	1 022.39
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Unequal repeat timer (*separately adjustable ON and OFF times*)

Programmable time relay with a asymmetrical recycle time, with independent timing adjustment for ON and OFF times. Multi-time range and multi-voltage.

- Multi-time range: 1s/10s/60s/10m/60m/10h/1day/10days/30 days/100days
- Multi-voltage: 1... 240 VAC/DC

TMPL	multi-time, multi-voltage, modular unequal repeat electronic timer	12 - 240 VAC/DC	1 577.85
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Delay on de-energisation timer

Electronic time relay. True off delay - relay energises on applying supply and remains energised (*for pre-set time period*) after supply is removed and then resets.

- Relay remains energised for preset time after removal of supply
- Selectable time ranges: 0.6s/6s/60s/180s (*adjustable*)
- Multi-voltage: 24...240 VAC/DC

TMD	multi-time, multi-voltage, delay on de-energisation elect. timer	24 - 240 VAC/DC	1 988.42
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Star-delta timer (*star connection delay and adjustable transition delay*)

Electronic time relay for starting star-delta, impedance, auto transformer starters. Adjustable "star" time delay where after a 20...300ms "transition" delay before "delta" is energised

- Selectable time ranges: 1s/10s/60s/10min - transition: 20...300ms (*adjustable*)

TMST	multi-time, multi-voltage, mod. star-delta elect. timer	24 - 48 VDC / 24 - 240 VAC	974.09
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TMSTA440	multi-time, multi-voltage, modular star-delta elect. timer	380 - 440 VAC	974.09
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type	description	monitored voltage	width in 17.5 mm	price
Voltage monitoring modular relays				
<ul style="list-style-type: none"> Modular DIN rail mounting (<i>aligns with standard MCBs</i>) True RMS measurements 				
Phase failure / reversal relay <i>instantaneous trip</i>				
PMV10A440	phase failure / reversal relay	208 - 480 VAC L-L	1	838.38
PMV20A575	phase failure / reversal relay	208 - 575 VAC L-L	2	1 054.59
Voltage monitors <i>single-phase or three-phase</i>				
<ul style="list-style-type: none"> Voltage monitoring relays, self powered, for minimum and maximum voltage Adjustments <ul style="list-style-type: none"> - "V max" maximum voltage tripping threshold 105 - 115% Ue - "V min" minimum voltage tripping threshold 80 - 95% Ue - "tripping" and "reset" time delay 0.1 - 20sec 				
Single phase monitoring				
PMV55A240	single-phase over/under voltage monitor	208 - 240 VAC	2	2 033.27
Three phase monitoring (<i>without neutral</i>)				
<ul style="list-style-type: none"> Self powered, for minimum and maximum voltage, phase loss and incorrect phase sequence 				
PMV50A575	3-phase over/under voltage monitor	380 - 575 VAC L-L	2	1 982.67
Three phase monitoring (<i>with or without neutral</i>) <i>self powered</i>				
<ul style="list-style-type: none"> For minimum and maximum voltage, phase loss, neutral loss and incorrect phase sequence 				
PMV50NA440	minimum and maximum AC voltage	380 - 440 VAC L-L	3	2 860.14
PMV50NA600	minimum and maximum AC voltage	480 - 600 VAC L-L	3	3 680.12
NFC programmability Three phase monitoring (<i>same functionality as above unit</i>)				
Multifunction voltage and frequency monitoring relay, self powered, for minimum and maximum voltage and frequency, phase loss, neutral loss, incorrect phase sequence and asymmetry.				
<ul style="list-style-type: none"> Without front adjustment knobs Programmable via smartphone or tablet with NFC technology and APP Simple, fast and intuitive programming (<i>password protected</i>) Very high accuracy and repeatability of settings 				
PMV95NA575NFC	multi-func. voltage and frequency relay (NFC)	380 - 575 VAC L-L	2	3 503.01
Current monitoring relays (<i>TRMS measurements</i>)				
Single and three-phase, AC/DC minimum or maximum current control with delayed trip. Auxiliary AC/DC power supply, automatic or manual reset.				
<ul style="list-style-type: none"> AC/DC minimum or maximum current control with programmable delayed trip Multi-voltage auxiliary power supply 24...240 VAC/DC Direct connection up to 16A or by current transformer (CT) 5A secondary Automatic or manual reset Adjustments <ul style="list-style-type: none"> - maximum or minimum current tripping threshold 5 - 100% Ie - maximum or minimum hysteresis threshold 1 - 50% - "trip" delay (<i>selectable</i>) 0.1 - 30sec - "inhibition" time - external input or power up 1 - 60sec - current scale selection: 5A or 16A - tripping memory (<i>latch</i>) On or Off 				
PMA30240	minimum or maximum current monitor	24 - 240 VAC/DC	2	2 108.02
Pump protection relay <i>single and three-phase systems (selectable)</i>				
Maximum AC current and minimum cosφ. Delayed trip. Phase loss and incorrect sequence. Instantaneous trip (<i>automatic or manual reset</i>)				
<ul style="list-style-type: none"> Pump protection relay against dry running, auxiliary AC power supply Maximum AC current and minimum cosφ (<i>delayed trip</i>) Direct connection up to 16A or by current transformer (CT) 5A secondary Phase loss and incorrect phase sequence (<i>instantaneous trip</i>) Voltage control range 80...660 VAC Adjustments <ul style="list-style-type: none"> - "minimum" cosφ threshold (<i>underload/dry running</i>) 0.1 - 0.99 - "maximum" (<i>over</i>) current threshold 10 - 100% Ie - "trip" delay for min cosφ and max current 0.1 - 10sec - "inhibition" time - external input or power up 1 - 60sec - automatic reset time Off - 100min - current selection: 5A or 16A 				
PMA50A240	pump protection relay (<i>against dry running</i>)	220 - 240 VAC	3	3 489.21
PMA50A415	pump protection relay (<i>against dry running</i>)	380 - 415 VAC	3	3 489.21

Timers & control relays



LVM20A240



LVM25240



LVM40...



SN1



LVM10A240

LVM series - Level control relays

- Level monitoring for conductive liquids
- Modular DIN rail mounting (aligns with standard MCB's)
- Double insulation between supply, electrodes and output relay

General applications:

- Adjustable sensitivity for water level control applications eg. wastewater (6...8k), rain or condensed water (15...25k)
- Probe signal detection circuit for applications where the electrode cables are significantly long and the liquid to control is highly resistive i.e. low conductivity (LVM40).
- Fail-safe operation for pump control applications by use of N/O contact for both emptying and filling functions avoiding false activations
- Time delay circuit for starting mainly used to avoid frequent pump startings

type	description	supply voltage	width in 18 mm	price
LVM20 <i>single voltage level control relay</i>				
<ul style="list-style-type: none"> • Three detecting probes (Min, Max and Com) • Emptying function (automatic reset) • Adjustable sensitivity (2.5...50kΩ) • Relay outputs: 1 x changeover (SPDT) 				
LVM20A240	liquid level control relay for "emptying" function	220 - 240 VAC	2	903.93
LVM20A415	liquid level control relay for "emptying" function	380 - 415 VAC	2	903.93
LVM25 <i>multi-voltage supply 24...240 VAC/DC</i>				
<ul style="list-style-type: none"> • Slimline one module (18 mm) wide • Relay outputs: 1 x changeover (SPDT) • Adjustments - sensitivity (2.5...100kΩ) • Selectable - "emptying" (or) "filling" function (with fail safe operation) 				
LVM25240	multi-voltage liquid level control relay	24 - 240 VAC/DC	1	1 280.00
LVM30 <i>dual-voltage supply delay start level control relay</i>				
<ul style="list-style-type: none"> • Relay outputs: 2 x changeover (SPDT) • Adjustments - probe signal delay 1-10sec / pump start delay 0-300sec • Selectable - "emptying" (or) "filling" function (with fail safe operation) 				
LVM30A240	dual-voltage liquid level control relay	24/220-240 VAC	3	1 505.40
LVM30A415	dual-voltage liquid level control relay	110-127/380-415 VAC	3	1 505.40
LVM40 <i>Multifunction level control relay</i>				
<ul style="list-style-type: none"> • Adjustments - sensitivity (2.5...200kΩ) (separate adj for Max electrodes for foam detection) - probe signal delay 1-10s / pump start delay 0-30min • Relay outputs: 1 x changeover (SPDT) • Detecting probes: Five detecting probes (Min1, Max1, Min2, Max2 and Com) • Selectable 5 different functions: <ul style="list-style-type: none"> (A) standard emptying function and alarms (B) standard filling function and alarms (C) emptying function with priority start-up change control (D) filling function with priority start-up change control (E) well draining and tank filling and alarms 				
LVM40A240	5 probe multi-function liquid level control relay	220 - 240 VAC	3	2 257.53
LVM40A415	5 probe multi-function liquid level control relay	380 - 415 VAC	3	2 257.53
Level electrodes and holders for conductive liquids				
SN1	1-pole insulated electrode (AISI 303 stainless steel) for LVM relays			166.76
PS3S	electrode holder for 3 rod probes/electrodes			195.51
P1000S	electrodes for above PS3S holder (1 meter length)			93.16
FS03-3P	electrode spacer disc (for extending probe length)			37.96
PXL	electrode extension locknut (for extending probe length)			35.66
Pump start-up priority change relay				
To balance operation times, hence wear of two pumps, compressors, generators when two units (primary and standby) are installed.				
<ul style="list-style-type: none"> • Outputs: 2 x NO (SPST) • Multi-voltage: 24/48 VDC / 2...240 VAC 				
LVM10A240	pump priority change relay	24 - 48 VDC / 24 - 240 VAC	1	978.69
LVM10A240	pump priority change relay with 4 I/O	220 - 240 VAC	3	1 505.40



LVFS series - Float switches

Float switches for automation of electrical equipment - pumps, solenoid valves, alarms, motorised sluice gates, etc. They feature an internal changeover contact operated in accordance with the level of liquid where the float is located. Cables used are high-quality and offer excellent mechanical and chemical resistance over time.

- Relay with changeover contact 10A 250 VAC 50/60Hz
- Compliant with standards: TUV, IEC/EN 60730-1, IEC/EN 60730-2-15.



LVFSP1W05



LVFSA1D10



LVFSN1B05

type	activation angle	cable length	supplied with counterweight	max. pressure	description	price
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For grey water IP68

Used for civil and industrial control of levels of grey water, e.g. rainwater, groundwater or cooling water from industry.

- PVC cable
- The MIN and MAX levels can be adjusted by varying the distance between counterweight and float.
- Changeover contact permits selection of filling and emptying function during regulator wiring.

LVFSP1W05	30°	5 met	yes	3 bar	float level switch for grey water	470.37
LVFSP1W10	30°	10 met	yes	3 bar	float level switch for grey water	654.38
LVFSP1W15	30°	15 met	yes	3 bar	float level switch for grey water	1 277.69

For drinking water IP68

These float switches are suitable for drinking water and foodstuff applications such as aquaducts, fountains, aquariums, drinks, fish hatcheries, swimming pools, etc. Realised with a non-toxic polypropylene outer shell, a stainless steel untreated sphere, and an AD8 cable with health certification ACS (*Attestation de Conformité Sanitaire*) outer sheath in PVC suitable for drinkable water immersion and use with food products.

- PVC cable ACS + AD8 certified
- Provided with stainless steel counterweight (AISI 316)
- The MIN and MAX levels can be adjusted by varying the distance between counterweight and float.
- Changeover contact permits selection of filling and/or emptying function during regulator wiring.

LVFSA1D05	30°	5 met	yes (AISI 316)	2 bar	float level switch for drinking water	1 438.70
LVFSA1D10	30°	10 met	yes (AISI 316)	2 bar	float level switch for drinking water	1 895.26
LVFSA1D15	30°	15 met	yes (AISI 316)	2 bar	float level switch for drinking water	2 482.93

For dirty water IP68

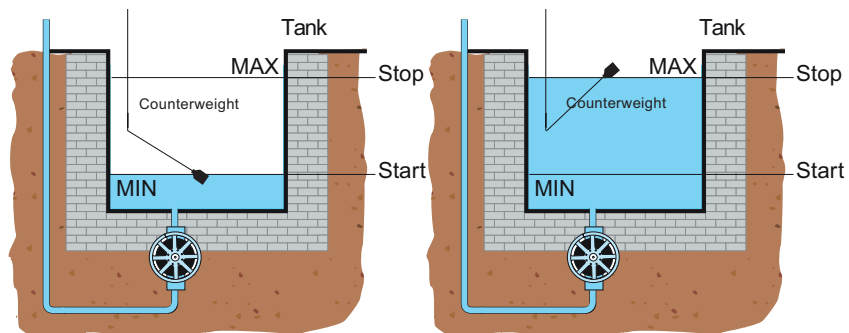
For civil and industrial control of dirty water levels, e.g. sewage or waste water from industry. Made of one-piece blow-moulded external polypropylene casing, with fixed internal counterweight located in the cable exit area. The regulator contact is positioned centrally in its own watertight chamber, insulated from external casing by injected closed-cell foam.

- Level control usually performed using two float switches, one for MIN. and another for MAX. levels
- Cable H07 RN-F3X1 (*Neoprene*)

LVFSN1B05	30°	5 met	yes (internal)	10 bar	float level switch for dirty water	1 798.66
LVFSN1B10	30°	10 met	yes (internal)	10 bar	float level switch for dirty water	2 240.28
LVFSN1B15	30°	15 met	yes (internal)	10 bar	float level switch for dirty water	3 483.46

Example: Filling function for LVFS series

The level regulator contact closes the lower circuit at minimum level and opens the circuit when the float reaches the upper maximum/minimum level level.





10 series - Daylight switches

Light dependant relays for automatic control of external lighting according to ambient light level.

- Adjustable sensitivity: 1...80 lux
- Built-in time delay: (ON - 15 sec / OFF - 30 sec)
- Ambient range: -30...+70°C

type	switch current	contact config.	supply voltage	lux setting	delay ON/OFF	description	price
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10 series - Daylight switches IP54

10.41 – light dependant relays (daylight switches) (H) 111 x (W) 59 x (D) 40 mm

- LED indication of relay status
- Wall or pole mounting (brackets supplied)

104182300000	16A	1 NO	230 VAC	1...80 lux	15/30s	standard daylight switch	1 001.69
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10.42 – 2 independent outputs with individual lux settings

104282300000	16A	2x 1 NO	230 VAC	2x 1...80	15/30s	2 circuit daylight switch	1 253.54
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10.51 – miniature light dependant relays (daylight switches) (H) 81 x (W) 37 x (D) 37 mm

- LED indication of relay status
- Wall or pole mounting (brackets supplied)

105182300000	12A	1 NO	230 VAC	1...80 lux	15/30s	mini daylight switch	894.73
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10.61 – hole mount (Ø 18 mm) (H) 48 x (Ø) 80

- Can be mounted directly on street light body

106182300000	16A	1 NO	230 VAC	(fixed) 10	15/30s	hole mount daylight switch	701.53
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11 series - Daylight switches with separate light sensor

Light dependant relays for automatic control of external lighting according to ambient light level - with separate light sensor.

- Modular DIN rail mounting (same cutout as standard MCBs)
- Selectable: std range 1...80lux / high range 30...1000lux / permanent ON or OFF
- LED indication of relay status

11.31 series - 17.5 mm wide (H) 84 x (W) 17.5 x (D) 61 mm

113182300000	16A	1 NO	230 VAC	1...1000	15/30s	modular daylight switch	972.94
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113100240000	16A	1 NO	12/24 VAC/DC	1...1000	15/30s	modular daylight switch	1 175.34
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11.42 series - 2 independent outputs with individual lux settings

114282300000	12A	2x 1 NO	230 VAC	2x 1-1000	15/30s	2 circuit daylight switch	1 936.67
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Light sensors for 11 series modular light dependant relays

01102	sensor	IP54	surface	mount	light sensor for 11 series modular relays	247.26
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Flush mount light sensor (mounts through 15/18 mm Ø hole) for modular relays

01103	sensor	IP66/67	flush	mount	light sensor for 11 series modular relays	445.07
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Modular time switches NFC programmable (with smartphone) (H) 89 x (W) 35 x (D) 61 mm

Finder digital time switches incorporate easy to use NFC (Near Field Communication) for fast, flexible programming of time via a smartphone, can also be performed via the front mounted joystick control

- Versions with 1 or 2 contacts - 16A
- 110...230 VAC/DC supply
- Internal battery (easily replaceable) for set-up and programming without supply voltage
- Wide backlit display for easy programming and visualisation

type	time range	contact config.	reserve	min. setting	description	price
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Digital (analogue-style) time switch easily configurable for daily or weekly programming

125182300000	24hr/7 day	1 CO	yes	30 min.	digital time switch	1 689.41
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Digital time switch with programmable pulse output (for school bell lunch/tea/interval ringing)

- Manual override facility
- Pulse output adjustable (1 sec...59 min)
- Holiday program

126182300000	7 day	1 CO	yes	1 sec.	digital time switch with pulse output	2 018.32
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Astro time switches (calculates sunrise/sunset according to longitude/latitude coordinates)

- Astro program: calculation of sunrise and sunset times through date, time, location coordinates
- Programmable offset from Astronomic times (up to 90 min)

12A182300000	7 day	1 CO	yes	1 sec.	astro programmable time switch	2 186.22
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12A282300000	7 day	2 CO	yes	1 sec.	astro programmable time switch	2 618.64
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RELETEK

For better control

The Reletek range includes the following:

Electronic Timing Devices • Digital Time Switches • Voltage Monitoring Devices • Liquid Level Control Relays

General product features

- Sleek 17.5 mm wide housing (*compact design, saves panel space*)
- Multi-functional operating modes (*model dependent*)
- Wide supply voltage range (*24 to 240V AC/DC*)
- WIFI smart switch available 



NEW

new



RS-TA14



RS-TM14



RS-TT13



RS-WIFI 2



* Smart Life

* Downloadable via the Play Store or App store

Electronic timing devices

Time relays

- Micro controller based
- Electrical life: 10⁵
- Mechanical life: 10⁶
- Output contacts: 1 C/O 8A / AC1
- LED indication: "Power" and "Relay" status
- Housing: Self-extinguishing material UL94-V-0
- Dimensions: 1 module (18 mm wide) DIN rail mounting

type	supply voltage	output relay	description	width in 18 mm	price
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Multi-voltage, multi-range timer

- Rep accuracy: <0.2%
- Supply voltage: Multi-voltage - AC/DC 12...240V
- Time ranges: Multi-range - 1s / 10s / 1m / 10m / 1h / 10h / 1day/ 10days / ON / OFF

ON-Delay timer

RS-TA14	12 - 240 VAC/DC	1 x C/O	ON-delay modular timer	1	376.07
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Interval (OFF-delay) timer

RS-TB14	12 - 240 VAC/DC	1 x C/O	interval (OFF-delay) modular timer	1	376.07
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Multi-function, multi-voltage, multi-range timer (10 functions)

- ON-delay,
- OFF-delay,
- Flasher OFF first,
- Flasher ON first,
- Delay impulse generation (0.5s)
- OFF-delay on impulse (*rising edge*)
- OFF-delay on impulse (*falling edge*)
- Switch ON/OFF delay,
- Latching relay,
- Time impulse released by rising edge with switch OFF-delay

- Time ranges: Multi-range - 1s / 10s / 1m / 10m / 1h / 10h / 1d / 10d / ON / OFF

RS-TM14	12 - 240 VAC/DC	1 x C/O	multi-function modular timer	1	464.62
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Asymmetric cyclus timer

- Unequal repeat timer with separate adjustment of ON and OFF times.
- Can be configured for ON or OFF time first.
- Cycler beginning with pulse or pause (*selectable*)
- Output contacts: 2 C/O 8A / AC1
- Time ranges: Multi-range - 1s / 10s / 1m / 10m / 1h / 10h / 1d / 10d / 30d / 100days

RS-TC23	24 - 240 VAC/DC	2 x C/O	asymmetric cycler modular timer	1	535.92
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Delay on de-energisation (*true OFF-delay without power supply*)

Relay energises on applying supply and remains energised for a preset time period after supply has been removed.

- Output contacts: 1 C/O 8A / AC1
- Time ranges: 0.1-1s / 1s-10s / 0.1m-1m / 1m-10m (*selectable*)

RS-TT13	24 - 240 VAC/DC	1 x C/O	delay on de-energisation timer	1	715.33
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WiFi smart switch

The RS-WIFI smart switch is a programmable switch/timer, easily programmable via a smart phone using WiFi or Bluetooth. Simply download the app for use with Android or iPhone. The smart switch can easily be programmed as a:

- Switch:** Remotely controlled ON/OFF switch (*phone indication of switch status*)
- Timer:** Permits a countdown timing function of the connected device
- Time Switch:** Daily, weekly programs/cycles down to second pulses (*using inching mode*) Also with astronomical function to calculate sunrise and sunset times based on geographic positioning (*longitudinal and latitudinal location*) and time zone, thus avoiding the need for external daylight switches and sensors.

- Front facia override button (*external pulse terminal also provided*)
- Output contacts: 1 NO - 16A / AC1
- Compact dimensions: 1 module (18 mm wide) DIN rail mounting
- Connection: WiFi and Bluetooth connection available

RS-WIFI 2	48 - 240 VAC/DC	1 x NO	modular WiFi smart switch	1	510.62
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new



RD-TPD1



RD-TPD2



RD-TPA2



RS-TSL

Digital time switches

Used for programming time functions for various applications such as lighting control, heating, household appliances, shop windows and many other devices.

The pulse program can be used for school or factory bell ringing. An internal battery maintains clock time and all program settings in the event of power failure.

- Compact dimensions: 2 module (36 mm wide) DIN rail mounting
- Number of programs: 52 programs
- Programs: Weekly, daily and pulse
- Operating modes: Manual, automatic, holiday
- Contact rating: 16A/250V AC1
- Standards: EN/IEC60730-1, EN/IEC60730-2-7

type	supply voltage	time range	min. setting	power reserve	description	width in 18 mm	price
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Digital time switches

Single channel digital weekly time switch

- 52 programs
- Automatic transfer of weekdays
- Holiday mode
- LCD display
- 1 changeover contact
- Sealable front cover, easy setting via 4 frontal buttons

RD-TPD1	220 - 240 VAC	7 day	1 sec	3 year	digital time switch	2	357.67
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Dual channel digital weekly time switch

- 90 programs
- Back-lit LCD display
- 2 changeover contacts
- 10 year power reserve (lithium battery)
- Double channel (each channel programmable independently)

RD-TPD2	24 - 264 VAC/DC	7 day	1 sec	10 year	digital time switch	2	680.83
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Digital astronomical time switches

RD-TPA series astronomical time switches calculate sunrise and sunset times based on geographic positioning (longitudinal and latitudinal location) and time zone. Thus avoiding the need for external daylight switches and sensors.

- Contact rating: 16A/250V AC1
- Operating modes: Manual, automatic, holiday
- Standards: EN/IEC60730-1, EN/IEC60730-2-7
- Compact dimensions: 2 module (36 mm wide) DIN rail mounting
- Program: Astronomical program (for sunrise and sunset calculation)

Single channel digital astronomical time switch

- LCD display
- 1 changeover contact
- Sealable front cover, easy setting via 4 frontal buttons

RD-TPA1	220 - 240 VAC	7 day	-	3 year	astronomical time switch	2	420.92
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Dual channel digital weekly time switch

- Back-lit LCD display
- 2 changeover contacts
- 10 year power reserve (lithium battery)
- Double channel (each channel programmable independently)

RD-TPA2	24 - 264 VAC/DC	7 day	-	10 year	astronomical time switch	2	723.38
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Staircase timer

The staircase timer provides a pre-determined ON time to operate a light or group of lights for illumination of a staircase, corridor, passageway, bathroom etc.

On receiving a pulsed input, the unit operates a contact (switching lights on) for a predetermined time period, where after it switches off until the next pulse

- 1 NO - 16A contact AC1
- 1 module DIN-rail mounting
- Possibility of 3 or 4 wire connection
- Preselect time range 0.5...20 minutes
- LED indication of "Power" and "Relay" status
- ON - AUTO - OFF slide switch on facia of timer (manual override)

RS-TSL	220 - 240 VAC	20 min	1 min	-	modular staircase timer	1	323.17
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new



RS-MV13



RS-MV31M



RS-MV36M



RS-MI5A

Voltage monitoring devices

- 1 CO 8A /AC1
- Micro-processor based
- 1 module DIN-rail mounting
- Supply voltage monitoring (*True RMS measurement*)
- Threshold voltage and trip delay independently adjustable

type	overvoltage setting (V)	undervoltage setting (V)	trip delay (s)	description	width in 18 mm	price
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Single phase voltage monitor

The RS-MV13 relay monitors its supply voltage. If the monitored voltage exceeds the preset overvoltage or undervoltage settings, the relay trips until the voltage returns to within the preset levels. An adjustable (0.1...10sec) trip delay is also incorporated.

- Microcontroller based
- Auto reset
- LED indication of control state

RS-MV13	225 - 275V	165 - 215V	0.1...10s	single phase voltage monitor	1	425.52
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Three phase voltage monitors

- Microcontroller based
- 1NO + 1NC output 8A
- True RMS measurement
- LED indication of "supply" and "output" state
- N phase failure protection in 3 phase 4 wire setting

Phase failure/reversal relay

Monitors supply, ensuring all phases (+ *Neutral in 4 wire system*) are present and in correct sequence. **RS-MV32M** additionally monitors phase asymmetry/imbalance (*fixed at 8%*)

RS-MV31M	–	–		phase failure/phase reversal relay	1	402.52
RS-MV32M	–	–		phase failure/phase reversal/asymmetry (8%) relay	1	408.27

Under/Over voltage monitor + phase failure/reversal relay

RS-MV34M relay monitors its 3 phase supply. If the monitored voltage exceeds the preset overvoltage or undervoltage settings the relay trips until voltage returns to within preset levels.

RS-MV36M additionally monitors phase failure and phase sequence (*reversal*) and will only reset once monitored voltage is within the preset level and all phases (*including Neutral in 4 wire setting*) are present and in sequence. An adjustable (0.1...10sec) trip delay is also incorporated.

Select - 3 phase 3 wire (*or*) 3 phase 4 wire and voltage selectable via facia:

Modes	3 PH 3 wire	3 PH 4 wire	(selectable)
Supply Terminals	L1,L2,L3	L1,L2,L3,N	(selectable)
Supply voltage	380/400/415V	220/230/240V	
Operating voltage range	266...540V	154-312V	

RS-MV34M	(105-125%) xUn	(75-95%) xUn	0.1...10s	under/over voltage monitor	1	493.37
RS-MV36M	(105-125%) xUn	(75-95%) xUn	0.1...10s	U/O volt+PH failure/reversal monitor	1	595.72

Current monitoring relay

RS-MI*A monitors a preset overcurrent or **RS-MI*B** undercurrent. If monitored current exceeds (*or*) falls below preset level the relay trips after completion of a preset trip delay, and only resets once current is within the preset limits. An adjustable (1-6sec) start-up delay is also incorporated.

General features:

- 1 C/O output - 8A AC1
- 1 module DIN-rail mounting
- Adjustable trip and start-up delay
- Adjustable current actuation threshold
- Can be used in junction with Current Transformers (CT's) up to 600A
- Hysteresis - 5% current setting value
- Rated insulation voltage - 250 VAC
- Measurement frequency 45-65Hz

Current monitor - overcurrent

RS-MI5A	0.5-5A	–	0.5...10s	modular overcurrent monitor	1	580.77
RS-MI10A	1-10A	–	0.5...10s	modular overcurrent monitor	1	580.77

Current monitor - undercurrent

RS-MI5B	–	0.5-5A	0.5...10s	modular undercurrent monitor	1	580.77
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Liquid level control relays

RS-LC liquid level relay monitors conductive liquid levels using electrodes to provide level status. When level reaches upper level, the relay disconnects the pump until the level reaches the lower level whereupon the relay re-energises switching the pump on.

RS-LC3 permits selection for “filling” or “draining” application and adjustable (0.5...10s) trip delay.

- Microprocessor based
- Adjustable sensitivity 5kΩ...100kΩ
- Operates with 2 or 3 electrodes
- Selectable “draining” or “filling” function (**RS-LC3**)
- 1 module DIN-rail mounting

type	supply voltage	sensitivity adjustment	trip delay	description	width in 18 mm	price
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Liquid level relays

RS-LC1	24 - 240 VAC/DC	5~100kΩ	2s (fixed)	modular liquid level relay	1	492.22
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With adjustable trip delay and “filling” or “draining” selector

RS-LC3	24 - 240 VAC/DC	5~100kΩ	0.5-10s	modular liquid level relay	1	492.22
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Accessories for liquid level relays

SNL1	–	stainless steel Aisi 316 electrodes for liquid level relays			(ea)	59.81
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Twilight (daylight) switches

Surface or pole mounting (IP54)

- 16A/250 VAC AC1
- Sensitivity adjustment 2 to 200 lux
- LED indication for calibration point

TS-01	230 VAC	–	surface/pole mounting day/night switch		–	323.17
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Modular daylight switch (2 module DIN-rail mount)

- 25A/250 V AC1
- Sensitivity adjustment 2 to 100 lux
- External light sensor (included with switch) 1m
- Fixed switching delay - ON (2...5s) and OFF (10...15s) delay

RD-ST1	230 VAC		modular day/night switch with external sensor		2	323.17
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Electro: Relay interface module - Slimline (IP20)

The CF41 series relay interface module (*slimline*) is a cost effective solution for interfacing to PLCs and automation controllers. They provide an ultra-slim solution (6.2 mm wide) with high current switching (6A...250VAC).

- Slimline (6.2mm) (H) 88.3 x (W) 6.2 x (D) 10.9 mm
- DIN-rail mounting - screw terminal
- Integrated LED indication and protection circuit
- Integrated retaining clip/relay ejector (for ease of relay removal)
- Provision for fitting pluggable jumper bars (reducing wiring time)

Rated current:	6A...250 VAC / 30 VDC
Rated AC1 load:	1500VA
Maximum switching voltage:	400 VAC / 125 VDC
Dielectric strength	- Coil and contacts 4kV (1 min)
	- Open contacts 1kV (1 min)
Approvals:	VDE (40020043), UL (E133481)

C41F-1Z-C2-1	24V AC/DC	1 CO (SPDT)	DIN-rail mount relay interface module	–	151.81
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Accessories for above relay interface

type	colour	No. ways	description	price
41F-J1	black	20 way	jumper link (bridge bar) for relay interface	– 32.21
41F-J1R	red	20 way	jumper link (bridge bar) for relay interface	– 32.21
41F-J1B	blue	20 way	jumper link (bridge bar) for relay interface	– 32.21

Adaptor (8 way) - interconnects 8 interface modules to PLC outputs via 14 pole ribbon cable

AR-8P	black	8 way	interconnect adaptor for relay modules	– 106.96
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Modular electronic timer		supply voltage	price
type	description		
Multi-range - Multi-function - Multi-voltage, modular timer			
	<ul style="list-style-type: none"> Output contact: 1 C/O 5A 250 VAC Operating temp: -20...+60°C Supply frequency: 35 - 70 Hz Multi- time range: Seconds: 1/10/100, Minutes: 1/10, Hours 1/10/100, Days 1/10 Multi-voltage: 24...300 VAC/DC Multi-function: <ul style="list-style-type: none"> On-delay <i>(on energising, relay only switches after preset time period)</i> Interval (off-delay) <i>(on energising, relay switches for preset time then resets)</i> On/off delay <i>(on energising, relay remains OFF for preset off-time, then switches ON for preset on-time, then resets)</i> Equal repeat (off) <i>(equal repeating starting with preset OFF time first)</i> Equal repeat (on) <i>(equal repeating starting with preset ON time first)</i> 		
T1-M5 Multi-Range/Function/Voltage electronic timer		(IP20) (width: 17.5 mm)	
	<ul style="list-style-type: none"> Modular DIN rail mounting - (H) 90.4 x (W) 17.5 x (D) 66.5 mm <i>(aligns with standard 1 pole MCB)</i> 		
270353	multi-range, multi-function, multi-voltage modular electronic timer	24 - 300 VAC/DC	708.43
T1-K Multi-function modular timer (pulse controlled)			
As above T1-M5 also with pulse control of functions <i>(via external contact)</i> configurable with interval on rising or falling edge triggering as well as on-delay with memory			
270354	multi-range/function/voltage modular timer with pulse control	24 - 300 VAC/DC	708.43
SD1 Star-Delta modular timer		(IP20) (width: 17.5 mm)	
Applying supply activates the preset "star" time period where after the preset (20...500msec) transition delay occurs before the "delta" relay is energised, it remains in this position until supply is removed.			
	<ul style="list-style-type: none"> Modular DIN rail mounting - (H) 90.4 x (W) 17.5 x (D) 66.5 mm <i>(aligns with standard 1 pole MCB)</i> Multi-voltage: 150...500 VAC Star time: t₁ 1...30 seconds 		
270358	modular DIN rail mounting electronic star-delta timer	150 - 500 VAC	915.43
Liquid level controller		IP20 (width: 36 mm)	
LC3 controls levels of conductive liquids by measuring the resistance of the liquid between probes. If measured resistance is less than the preset value, the output relay will be activated. To avoid electrolysis, an AC signal is applied to the liquid			
	<ul style="list-style-type: none"> Modular DIN rail mounting - (H) 90 x (W) 36 x (D) 58 mm <i>(aligns with standard 2 pole MCB)</i> Sensitivity adjustment: 5...100kΩ Time delay: 0.1 - 10 sec 		
270001	modular DIN rail mounting electronic liquid level controller	150 - 500 VAC	749.83
Protection relays		IP20 (width: 17.5 mm)	
	<ul style="list-style-type: none"> Output contact: 1 C/O 10A 250 VAC Phase-failure/reversal/imbalance M1D-SA Fixed time delay: 500msec 		
270144	modular DIN rail mount 3 ph phase failure/reversal/imbalance relay	380 - 480 ±25%	874.03
Voltage monitor with phase-failure/reversal/imbalance		IP20 (width: 17.5 mm)	
	<ul style="list-style-type: none"> Modular DIN rail mounting - (H) 90.4 x (W) 17.5 x (D) 66.5 mm <i>(aligns with standard 1 pole MCB)</i> Adjustable - <i>(via front facia dials)</i> <ul style="list-style-type: none"> Over voltage: +5...+20% with OFF <i>(override)</i> selection Under voltage: -5...-20% with OFF <i>(override)</i> selection Delay time: 0.1...10sec 		
G1D-SA - 3 phase (L1-L3)			
270140	modular 3ph over/under voltage monitor with ph failure/reversal	380 - 480 ±25%	874.03
G1-SA - 3 phase + neutral (L3-N)			
270130	modular 3ph+N over/under voltage monitor + ph failure/reversal	230 ±25%	747.53
Current monitor relay		36 mm (2 modules wide)	
CPR-16	Current measurement: 0.1 ... 16A AC	Hysteresis: 5...20%	
	Time delay adjustment: 0.1 ... 10 sec		
270270	0.1...16A modular DIN rail mounting current monitor	36 - 300 VAC/DC	1 349.00



ASCON series

Analog signal converters

The Ascon range of signal converters are compact electronic devices which measure input parameters and converts them to another signal form continuously. Converting temperature, voltage and current parameters into V, mV, mA, and RS485 outputs.

- Different inputs and outputs are configurable via front mounted rotary selector dials
- 3 way - 1.5kV RMS Isolation (Input, output and supply electrically isolated from one another)
- Compact modular (H) 90.4 x (W) 17.5 x (D) 66.5 mm (same dimensions as single pole MCB)

type	supply voltage	selectable inputs	selectable outputs	description	price	
ASCON 311 Signal converter (configurable)						
602300	11 - 30 VDC	0...60mV	0...5mA	0...5V	configurable analog signal converter	4 160.84
		0...100mV	0...10mA	5...0V		
		0...250mV	0...20mA	0...10V		
		0...500mV	-5...5mA	10...0V		
		0...1V	-10...10mA	-5...5V		
		0...2V	-20...20mA	0...20mA		
		0...2.5V	4...20mA	20...0mA		
		0...5V	0...24mA	4...20mA		
		0...10V	4...24mA	20...4mA		
0...20V	0...12mA	-20...20mA				
ASCON 321 PT100 converter (configurable)						
602310	11 - 30 VDC	PT100 (2,3,4 wire) -150°C...800°C (configurable)	V/mA same as Ascon 311 (above)	configurable PT100 signal converter	4 368.99	
ASCON 331 Thermocouple converter (configurable)						
602320	11- 30 VDC	J: -200°C...1200°C	V/mA same as Ascon 311 (above)	configurable thermocouple signal converter	4 368.99	
		K: -200°C...1350°C				
		E: -200°C... 950°C				
		R: -50°C...1750°C				
		S: -50°C...1750°C				
ASCON 352 Signal temperature converter (with RS485)						
602400	11 - 30 VDC	mV, V, mA	RS485	signal temperature converter to RS485	3 661.72	
		PT100 (2,3,4 wire)				
		Thermocouple (J,K,E,R,S)				
Voltage and current transducers						
Converts voltage and current signals into analog signals for monitoring/managing purposes						
<ul style="list-style-type: none"> • 3 way - 1.5kV RMS Isolation • Compact modular (H) 90.4 x (W) 36 x (D) 57.5 mm (same dimensions as 2 pole MCB) 						
VT3-AC TRMS voltage transducer						
600101	85 - 265 VAC	0-24/36/54/80/120/170/25	V/mA same as Ascon 311 (above)	TRMS AC voltage transducer	3 666.32	
600103	10 - 36 VDC	0/400/450/500V AC		TRMS AC voltage transducer	3 922.78	
600105	9 - 30 VDC	(10 ranges)		loop powered voltage t/ducer	2 080.42	
VT3-ACDC-24 TRMS voltage transducer						
600106	10 - 36 VDC	0-24/54/120/250/450V AC/DC (10 ranges)	V/mA same as Ascon 311 (above)	TRMS AC/DC voltage transducer	4 682.95	
CT3 TRMS current transducer						
600100	85 - 265 VAC	0-1/2/3/4/5A AC/DC (10 ranges)	V/mA same as Ascon 311 (above)	TRMS AC current transducer	3 666.32	
600102	10 - 36 VDC			TRMS AC current transducer	3 922.78	
600104	9 - 30 VDC			loop powered current t/ducer	2 080.42	



CTA4100A



L48TP...



S48/704/B6/...



1400/704/B6/11A



XT115163

Delta - CTA - Timer / Counter / Tachometer (Panel mount 48 x 48 mm²)

CTA 3-in-1 Timer/Counter/Tachometer is able to receive external input signals and calculate the times of events, frequency and speed. The CTA unit can be applied to batch counting, total counting, length measurement.

- External power supply: 12 VDC ±10%, 100mA (integrated power supply)
- Display: Double-line, 6-digit negative transmissive LCD display
- Input signal: Non-voltage input (NPN) / Voltage input (PNP)
- Output 1: Relay: SPST max.250 VAC, 5A + Transistor: NPN open collector.
- Output 2: Relay: SPDT max.250 VAC, 5A (or) Transistor: NPN open collector.
- Easy DIP switch setup:
 - Timer - timing up or down 0.01 sec - 999.999 hours
on-delay, interval, repeat (power on, pulse on, pulse off)
 - Counter - counting up or down 1 or 2 stage, batch, total, dual counting
(speed selection: 1/30/200/3k/5k/10k Cps)
 - Tachometer - measurement in Hz (can be configured to read RPM)

type	description	output 2	RS-485	supply	price
CTA4100A	multi-function timer-counter-tachometer	relay	no	100 - 240 VAC	1 784.86
CTA4000A	multi-function timer-counter-tachometer	transistor	no	100 - 240 VAC	1 784.86
CTA4001A	multi-function timer-counter-tachometer	transistor	yes	100 - 240 VAC	1 891.81
CTA4100D	multi-function timer-counter-tachometer	relay	no	24 VDC	1 784.86
CTA4101D	multi-function timer-counter-tachometer	relay	yes	24 VDC	1 944.72

Lovato - Panel mounting timers (48 x 48 mm²) *Changeover relay (5A 250 VAC)*

- Multi-voltage: 24 VAC/DC, 110, 220...240 VAC
- Housing: 8-pin plug-in housing

On-delay timer - delay on make (relay switches after preset time elapses)

		time range	price
L48TPS240	on-delay multi-range/voltage panel mount electronic timer	3/12/100/780sec	699.23
L48TPM240	on-delay multi-range/voltage panel mount electronic timer	3/12/100/780min	699.23

Two changeover relays (one configurable for instantaneous switching)

L48TPBM240	on-delay multi-time range panel mount electronic timer	1s/10s/1min/10min	813.08
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Accessories for above L48 series panel mount timers

ES8CNER	8 pin surface/DIN rail mounting relay socket for L48 timers	(screw terminals)	123.06
P3G08	8 pin socket for panel mounting L48 timers (rear terminals)	(screw terminals)	49.46
D-48Y	flush-mounting bracket for panel mounting above L48 timers		33.47

CDC - Electromechanical timing devices (motorised)

Multi-range motorised timers 6/60sec - 6/60min - 6/60hrs (on one timer)

Surface/DIN rail mount motorised timer

S45/604/B6/02A	1x instantaneous + 1x delay multi-range motorised timer	24 VAC	4 087.23
S45/604/B6/11A	1x instantaneous + 1x delay multi-range motorised timer	110 VAC	4 087.23
S45/604/B6/22A	1x instantaneous + 1x delay multi-range motorised timer	220 VAC	4 087.23

Flush/panel mount motorised timer

S48/704/B6/02A	1x inst + 1x delay multi-range motorised timer	p/mount 48 mm ²	24 VAC	3 347.76
S48/704/B6/11A	1x inst + 1x delay multi-range motorised timer	p/mount 48 mm ²	110 VAC	3 347.76
S48/704/B6/22A	1x inst + 1x delay multi-range motorised timer	p/mount 48 mm ²	220 VAC	3 583.52
1400/704/B6/22A	1x inst + 1x delay multi-range motorised timer	p/mount 72 mm ²	220 VAC	4 381.64

Accessories

L48P8	rear connected 8 pin screw terminal socket	for S48/1400 timers	166.76
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Finder - Asymmetrical timer (up to 300hrs) (use L48P8 for termination)

889202400000	2 pole	panel mount asymmetrical flasher	240 VAC	2 729.04
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EM - Mechanical clockwork timers - panel mount 16 A 250 VAC (1NO + 1NC)

- Mounting by 2 x M4 screws
- Supplied with graduated dial + knob

type	Amps	contact	time range	description	price
XTI2049	16A	1NO + 1NC	60 min	MI2 mechanical clockwork timer	1 016.64
XTI2048	16A	1NO + 1NC	120 min	MI2 mechanical clockwork timer	1 016.64
XTI2045	16A	1NO + 1NC	12 hour	MI2 mechanical clockwork timer	1 083.34
XTI115163*	16A	1NO + 1NC	24 hour	MI5 mechanical clockwork timer	1 164.99

* Requires separate supply for 220V internal motor



DMFTMV



DOD



DSD



DDCT

Electro D series - Modular timing devices

The **Electro "D"** range of control and timing devices are compact modular units for easy introduction into standard panels and/or distribution boards. They mount directly onto DIN rail and align with standard miniature circuit breakers (MCB's).

- Compact DIN rail mounting: (H) 92 x (W) 36 x (D) 64 mm - (2 modules wide)

multi-range (adjustable time ranges)	No.	time ranges
	1	6 sec
	2	60 sec
	3	6 min
	4	60 min
	5	6 hr
	6	60 hr
	7	ON
	8	OFF

multi-function	No.	functions
	A	on-delay
	B	interval
	C	equal repeat
	D	Off delayed (pulse controlled)
	E	interval (pulse controlled)
	F	step relay
	G	pulse generator
	H	on/off delay

type	supply voltage*	time range	function	description	price
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Multi-range/multi-function timers - (8 x selectable time ranges / 8 x selectable functions)

Multi-function, multi-range timers designed with latest technology includes all commonly used functions and time ranges (selectable via front mounted dials).

Single voltage version

DMFT012AD	12 VAC/DC	selectable via rotary selector on facia of timer 1...8	selectable via rotary selector on facia of timer A...H	multi-range/function timer	1 003.99
DMFT110A	110 VAC			multi-range/function timer	1 003.99
DMFT230A	230 VAC			multi-range/function timer	1 003.99
DMFT400A	400 VAC			multi-range/function timer	1 003.99
DMFT024AD	24 VAC/DC			multi-range/function timer	1 003.99
Multi-voltage version					
DMFTMV	12-260 VAC/DC			multi-range/function/voltage timer	1 174.19

True off delay (delay on de-energisation) electronic timer

Multi-range OFF delay (delay on release) timer with advanced power back-up circuitry to deliver wide time ranges. The unit must be powered for no less than 30 sec + 30% of set time range. (If permanent power is available DMFT timer should be used.)

- Delay on de-energisation timer (delay on removal of supply)

DOD230A	230 VAC	1...4	off delay	delay on de-energisation timer	971.79
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Unequal repeating electronic timer multi-range (ON/OFF)

Multi-range electronic timer designed with latest technology covers most combinations of ON/OFF time ranges selectable via front mounted dials and DIP switch.

- Asymmetrical recycler with independently adjustable ON and OFF times

DUR110A	110 VAC	selectable via selector on facia 1...8	repeat	multi-range unequal repeat timer	1 003.99
DUR230A	230 VAC		repeat	multi-range unequal repeat timer	1 003.99
DUR024AD	24 VAC/DC		repeat	multi-range unequal repeat timer	1 003.99

Star-Delta timer

Star/Delta timer with adjustable transition delay for starting inductive motors. Applying supply activates a contact for the preset "star" period (3-60 sec) the contact disconnects on lapse of this period for the preset transition period (4-180 ms) where after the relay switches to the "delta" position until supply is removed.

- Adjustable "star" time: 3-60 sec
- Adjustable "transition" time: 40-180 ms

DSD110A	110 VAC	3-60 sec	star delta	rail mount star-delta timer	913.13
DSD230A	230 VAC	3-60 sec	star delta	rail mount star-delta timer	913.13
DSD400A	400 VAC	3-60 sec	star delta	rail mount star-delta timer	913.13




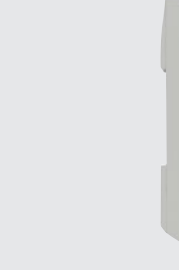


Digital counter / timer (H) 92 x (W) 54 x (D) 64 mm

Multi-function four digit preselect impulse counter/timer Setup and ranges can be adjusted with an easy to access and control menu system to make all common function available.

- 4 digit preselect impulse counter with selectable prescaler, configurable for (up/down) counting
- Digital timer with pulse start/stop configurable for (up/down) lapse time indication
- 4 time ranges: 1...999.9s / 9999 min

DDCT230A	230 VAC	1s - 9999m	counter/timer	digital rail mount counter / timer	1 488.15 + 10%
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* Other voltage options available on request.

	type	supply voltage*	output	function	description	price	
 <p>DLL4</p>  <p>DWLT</p>  <p>DWLR</p>  <p>DPP4</p>  <p>DPF</p>  <p>DVV3</p>	Liquid level controllers (H) 92 x (W) DLL/DLL4 36/54 x (D) 64 mm						
	Controlling of conductive liquid levels with two/ four probes.						
	3 - probe unit - (2 + common) (H) 92 x (W) 36 x (D) 64 mm						
	• Function: Emptying/ Filling						
	DLL230A	230 VAC	2 probes+com	emptying/ filling	liquid level controllers	895.88	
	DLL400A	400 VAC	2 probes+com	emptying/ filling	liquid level controllers	895.88	
	DLL024AD	24 VAC/DC	2 probes+com	emptying/ filling	liquid level controllers	895.88	
	5 - probe unit - (4 + common) (H) 92 x (W) 54 x (D) 64 mm						
	• Function: Emptying/filling with alarm, emptying/filling with pump priority, container filling/well draining with alarm, electrode test						
	DLL4230A	230 VAC	4 probes+com	emptying/ filling	liquid level controllers	1 380.05	
DLL4400A	400 VAC	4 probes+com	emptying/ filling	liquid level controllers	1 380.05		
DLL4024AD	24 VAC/DC	4 probes+com	emptying/ filling	liquid level controllers	1 380.05		
Radio level controller (wireless)							
• DIN radio receiver - 5 km transmission (<i>line of sight</i>)							
• Coin Battery CR3202 for level transmitters (<i>3 year life span</i>)							
• Two configurable (<i>radio connected</i>) relay outputs							
DWLT	24 VAC/DC	3 probe	transmitter	level transmitter module	2 076.97		
DWLR	24 VAC/DC	level controller	receiver	receiver module	2 159.77		
ANT 2	-	-	antenna	one per DWL... module	736.03		
Advanced pump protection relay							
Advance pump protection relay to safeguard borehole pumps against damage. The unit is easily calibrated to monitor all important pump characteristics.							
• Over / under current protection							
• Over / under voltage protection and phase rotation (<i>on 3 phase units</i>)							
• Running dry restart delay / over current retires							
DPP1230A	230 VAC	1 phase	pump protection	pump monitoring relay	1 184.54		
DPP3400A	400 VAC	3 phase	pump protection	pump monitoring relay	1 313.35		
DPP4400A	400 VAC	3 phase	pump protection	with adj./function selection	1 376.60		
Phase failure/reversal relay (sequence and imbalance)							
Phase failure / reversal monitor for three phase supply voltage.							
For protection against phase reversal, and/or phase loss and phase imbalance.							
DPF1110A	110 VAC	3 phase	phase monitor	phase failure/reversal relay	805.03		
DPF1400A	400 VAC	3 phase	phase monitor	phase failure/reversal relay	805.03		
DPF1/K400A*	400 VAC	3 phase	phase monitor	phase failure/reversal relay	895.88		
DPF1/N400A	400 VAC	3 ph + neutral	phase monitor	phase failure/reversal relay	895.88		
DPF1525A	525 VAC	3 phase	phase monitor	phase failure/reversal relay	805.03		
DPF1/K525A*	525 VAC	3 phase	phase monitor	phase failure/reversal relay	895.88		
* With adjustable parameters							
Automatic phase selector							
Monitors three phase + neutral and selects the phase most suitable for providing a single phase 230V 50Hz supply to industrial and domestic installations.							
Ideal for supplying essential uninterrupted single phase supply, preventing unacceptable voltage variations.							
• Automatically selects the optimum phase falling within user define pre-set limits.							
DPS3230A	230 VAC	3 phase	phase selector	automatic phase selector	2 183.92		
Voltage window comparator + phase failure							
Monitors supply, ensuring voltage remains within preset over and under limits and that all phases are present and in sequence.							
• Delays : No delay - startup delay (10 sec) - recovery delay (180 sec) - reaction delay (10 sec)							
DVV1230A	230 VAC	1 phase	comparator	over / under voltage monitor	1 017.79		
DVV3400A	400 VAC	3 phase	comparator	over / under voltage monitor	1 028.14		
DVV3N400A	400 VAC	3 ph + neutral	comparator	over / under voltage monitor	1 017.79		
DVV3525A	525 VAC	3 phase	comparator	over / under voltage monitor	1 028.14		
Voltage monitor Monitors a separate voltage than supply.							
DVM400A-230A	230 VAC		400 VAC monitoring	voltage monitor device	1 014.34		
DVM024D-24A	24 VDC		400 VAC monitoring	voltage monitor device	1 014.34		
DVM30MV-30MV	10-30 VDC		10-30 VDC monitoring	voltage monitor device	1 014.34		
* Other voltage options available on request.						+ 10%	



DCM



DLS



DDVW3



DRT



DRR

The **Electro "D"** range of control and timing devices are compact modular units for easy introduction into standard panels and/or distribution boards. They mount directly onto DIN rail and align with standard miniature circuit breakers (MCB's).

- Compact DIN rail mounting: (H) 92 x (W) 36 x (D) 64 mm - (2 modules wide)

type	supply voltage*	current	interface	description	price
Current monitors (H) 92 x (W) 36 x (D) 64 mm					
• Delays : No delay - startup delay (10 sec) - recovery (180 sec) - reaction delay (10 sec)					
Over (or) under current monitoring.					
Monitors supply, ensuring current remains within preset over (or) under current limits					
DCM5230A	230 VAC	5A	with 5A CT	modular current monitor	1 174.19
DCM5400A	400 VAC	5A	with 5A CT	modular current monitor	1 174.19
DCM5024D	24 VDC	5A	with 5A CT	modular current monitor	1 581.30
DCM15230A	230 VAC	15A	direct 15 A	modular current monitor	1 174.19
Current window comparator (H) 92 x (W) 54 x (D) 64 mm					
Monitors supply, ensuring current remains within preset over and under current limits					
DCW5230A	230 VAC	5A	with 5A CT	over / under current monitor	1 174.19
DCW15230A	230 VAC	15A	direct 15 A	over / under current monitor	1 174.19
Load shed relay (H) 92 x (W) 36 x (D) 64 mm					
Load shed relay featuring high resolution analog converter for precise switching levels. The relay monitors current consumed and disconnects unnecessary load when necessary					
DLS230A	230 VAC	15A	1 circuit	modular load shed relay	1 125.89
Digital temperature controller with timer (interfaces with TP1 digital probe)					
type	supply	outputs	function	description	price
4 digit digital temperature controller, monitors temperature via the TP1 temperature probe (supplied separately) Setup and range selection can be adjusted via an easy to access control menu system to make all common functions available.					
• Two set points / relay outputs / PID control					
• Over / under temperature					
DDTC230A	230 VAC	relay	controller	digital temperature controller	1 488.15
DDTCT230A	230 VAC	relay	controller	temp controller / 24 hour clock	1 711.26
TP1	temperature probe			(with 3 meter cable)	303.61
Digital voltage window comparator					
Monitors supply, ensuring voltage remains within preset over and under limits and that all phases are present and in sequence.					
• Over / under voltage and frequency monitoring					
• 2 relay outputs for individual functions					
• Adjustable delays					
• Phase failure/reversal					
DDVW3400A	400 VAC	3 phase	monitor	digital voltage monitor	1 857.31
Handheld radio (wireless) speed controller (DIN Radio Receiver)					
Radio/wireless remote controller designed to transmit signals from a handheld transmitter to a receiver designed to interface with the PLC function of VSD's (variable speed drives) for remote speed control of electric motors through the VSD					
• Handheld remote 800 meter transmission (line of sight)					
DRR	12/24 VAC/DC	5x s/state	receiver	rail mount radio receiver	1 846.96
DRT	-	-	transmitter	handheld radio transmitter	2 030.97
ANT 2	antenna for DRR speed control receiver			for DRR module	736.03
Wireless signal extender (3 inputs and 3 outputs: Tx and Rx)					
• Power supply: 10 - 30 VAC/DC					
• License free radio band					
• 7 km transmission - line of sight (includes Watchdog protection)					
DRC/M	10 - 30 VAC/DC	3 relay	master transceiver	wireless signal extender	1 772.99
DRC/S	10 - 30 VAC/DC	3 relay	slave transceiver	wireless signal extender	1 742.31
ANT 2	antenna for DRC signal extender			for DRC module	736.03

* Other voltage options available on request.

+ 10%



T2M



T2D



R2U



TNE

The **Electro 11 pin plug-in** range of control and timing devices to be installed into a standard 11 pin base making installation and potential future replacement simple and convenient.

- Compact 11 pin plug-in modules: (H) 80 x (W) 35 x (D) 79 mm

multi-range (adjustable time ranges)	No.	time ranges
	1	6 sec
	2	60 sec
	3	6 min
	4	60 min

multi-function	No.	functions
	A	on-delay
	B	interval
	C	equal repeat
	D	interval (pulse controlled)

type	supply voltage*	time range	function	description	price
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Multi-range/multi-function timers - (4 x selectable time ranges / 4 x selectable functions)

Multi-range multi-function plug-in timers incorporating most commonly required functions. Any change made to function or time range by means of front mounted dials will result in a reset of the unit.

T2M110A	110 VAC	selectable via rear mounted DIP switches	selectable via rear mounted DIP switches A, B, C	multi-range/function timer	832.63
T2M230A	230 VAC			multi-range/function timer	832.63
T2M400A	400 VAC			multi-range/function timer	832.63
T2M012AD	12 VAC/DC			multi-range/function timer	832.63
T2M024AD	24 VAC/DC			multi-range/function timer	832.63
T2M048AD	48 VAC/DC			multi-range/function timer	832.63
T3M110A	110 VAC	1...4	DIP switches A...D	multi-range/function timer	979.84
T3M230A	230 VAC			multi-range/function timer	979.84
T3M024AD	24 VAC/DC			multi-range/function timer	979.84

True OFF delay on de-energisation timer (delay on removal of supply)

Multi-range OFF delay (delay on release) timer with advanced power back-up circuitry to deliver wide time ranges. The unit must be powered for no less than 30 sec + 30% of set time range.

T2D10S230A	230 VAC	10 sec	off delay	delay on de-energise timer	954.53
T2D30S230A	230 VAC	30 sec	off delay	delay on de-energise timer	954.53
T2D30S400A	400 VAC	30 sec	off delay	delay on de-energise timer	954.53
T2D60S230A	230 VAC	60 sec	off delay	delay on de-energise timer	954.53
T2D180S024AD	24 VAC/DC	180 sec	off delay	delay on de-energise timer	954.53
T2D180S230A	230 VAC	180 sec	off delay	delay on de-energise timer	954.53
T2D360S024AD	24 VAC/DC	360 sec	off delay	delay on de-energise timer	954.53
T2D360S230A	230 VAC	360 sec	off delay	delay on de-energise timer	954.53
T2D/B10M230A	230 VAC	10 min	off delay	delay on de-energise timer	1 052.29
T2D/B30M230A	230 VAC	30 min	off delay	delay on de-energise timer	1 052.29
T2D/B60M230A	230 VAC	60 min	off delay	delay on de-energise timer	1 052.29
T2D/B180M230A	230 VAC	180 min	off delay	delay on de-energise timer	1 052.29

Unequal repeating timer multi-range (for ON and OFF ranges)

Asymmetrical recycler timer with two independently adjustable time ranges. On application of supply the relay operates for the pre-set "on" time, thereafter the relay releases for the separately pre-set "off" time. Cycle repeats until supply is removed.

Cycle can be reversed ("off" time first) by bridging terminals (7 and 9)

- Unequal repeating timer (asymmetrical recycler independently adjustable ON time and OFF time)

Dip switch selectable:	ON:	6sec, 60sec, 6min, 60min, 6 hr			
	OFF:	6sec, 60sec, 6min, 60min, 6 hr			
R2U110A	110 VAC	selectable via rear mounted DIP switches	repeat	unequal repeating timer	875.18
R2U230A	230 VAC		repeat	unequal repeating timer	875.18
R2U400A	400 VAC		repeat	unequal repeating timer	875.18
R2U012AD	12 VAC/DC		repeat	unequal repeating timer	875.18
R2U024AD	24 VAC/DC		repeat	unequal repeating timer	875.18

Star-delta timer

Applying supply activates a contact for the preset "star" period the contact disconnects on lapse of this period for the preset transition period (4-180 ms) where after the relay switches to the "delta" position until supply is removed.

TNE30S024AD	24 VAC/DC	30 sec	star delta	plug-in star delta timer	724.53
TNE30S110A	110 VAC	30 sec	star delta	plug-in star delta timer	724.53
TNE30S230A	230 VAC	30 sec	star delta	plug-in star delta timer	724.53
TNE30S400A	400 VAC	30 sec	star delta	plug-in star delta timer	724.53
TNE60S024AD	24 VAC/DC	60 sec	star delta	plug-in star delta timer	724.53
TNE60S230A	230 VAC	60 sec	star delta	plug-in star delta timer	724.53
TNE60S400A	400 VAC	60 sec	star delta	plug-in star delta timer	724.53
TNE180S230A	230 VAC	180 sec	star delta	plug-in star delta timer	724.53

* Other voltages available on request only. + 10%



DEF1/F230A



T10



GAM3



RRP1

The **Electro 11 pin plug-in** range of control and timing devices to be installed into a standard 11 pin base making installation and potential future replacement simple and convenient.

- Compact 11 pin plug-in modules: (H) 80 x (W) 35 x (D) 79 mm

type	supply voltage*	time range	function	description	price
Defrost Timer (with fan delay)					
<ul style="list-style-type: none"> • Configurable for 4-hour (defrost cycle every 4 hours) or 8 hour cycle. <p>Applying supply starts the pre-set (1-60 min) defrost cycle, thereafter the relay switches to the cooling cycle, activating the pre-set (1-60 sec) fan delay period (to prevent water splatter and warm air blowing into the room) and then starts the fan.</p> <ul style="list-style-type: none"> • Defrost time: 3-60 min • Fan delay: 3-60 sec 					
DEF1/F230A	230 VAC	see above	defrost	plug-in electronic defrost timer	993.64
Econo range timers econo single adjustable time range and supply voltage					
T10/10S230A	230 VAC	10 sec	on-delay	plug-in electronic timer timer	599.17
T10/10S400A	400 VAC	10 sec	on-delay	plug-in electronic timer timer	599.17
T10/30S230A	230 VAC	30 sec	on-delay	plug-in electronic timer timer	599.17
T10/60S230A	230 VAC	60 sec	on-delay	plug-in electronic timer timer	599.17
T10/180S024AD	24 VAC/DC	180 sec	on-delay	plug-in electronic timer timer	599.17
T10/180S230A	230 VAC	180 sec	on-delay	plug-in electronic timer timer	599.17
T10/360S230A	230 VAC	360 sec	on-delay	plug-in electronic timer timer	599.17
T10/360S400A	400 VAC	360 sec	on-delay	plug-in electronic timer timer	599.17
T10/600S230A	230 VAC	600 sec	on-delay	plug-in electronic timer timer	599.17
T10/600S400A	400 VAC	600 sec	on-delay	plug-in electronic timer timer	599.17
T10/600S525A	525 VAC	600 sec	on-delay	plug-in electronic timer timer	599.17
T10/60M230A	230 VAC	60 min	on-delay	plug-in electronic timer timer	599.17
T1IP/30S024AD	24 VAC/DC	30 sec	interval	econo pulsed internal timer	822.28
T1IP/30S230A	230 VAC	30 sec	interval	econo pulsed internal timer	822.28
T1P/230A	230 VAC	-	one-shot	econo impulse relay	724.53
FRT1/230A	230 VAC	-	timer	econo forward/reverse timer	878.63
Two hand control (safety control)					
Two hand control designed as a safety device for machines, forcing the operator to operate two pushbuttons within 0.5 secs for machine to operate. A latch facility is provided for use foot switches.					
THC1230A	230 VAC	-	safety	two safety hand controller	805.03
Flip flop relays					
Flip flop relays to control many applications such as dividing work load and controlling conveyor direction. (F30 mains controlled function has to be energised for at least 30 sec before the supply is removed)					
F12230A	230 VAC	flip-flop		pulse controlled without memory	878.63
F30230A	230 VAC	flip-flop		mains or pulse controlled + memory	983.29
F30024AD	24 VAC/DC	flip-flop		mains or pulse controlled + memory	983.29
Alarm module (3 circuits)					
Alarm module to control alarm signals and generate the appropriate output for simple annunciator panels. Control of alarm outputs from 3 separate N/O inputs. System can be expanded by bridging all common terminals of the modules.					
GAM3012D	24 VDC	-	alarm	alarm annunciator module	944.18
GAM3024D	12 VDC	-	alarm	alarm annunciator module	944.18
Tachometer relay					
Multi-function tachometer relay with four selectable speeds. The unit can be selected for OVER and UNDER speeds, interfaces directly with Namur two wire proximity sensor or limit switch. Relay remains energised for as long as detected speed remains within the pre-set limits.					
• Selectable speeds: 1-10, 10-100, 100-1000, 1000-10,000 (RPM)					
RRP1024AD	24 VAC/DC	-	relay	over/under speed monitor	892.43
RRP1110A	110 VAC	-	relay	over/under speed monitor	892.43
RRP1230A	230 VAC	-	relay	over/under speed monitor	892.43
RRP1012D	12 VAC	-	relay	over/under speed monitor	892.43
* Other voltage options available on request.					+ 10%

Timers & control relays



SF1K



V3E...



T1R



SC1

The **Electro 11 pin plug-in** range of control and timing devices to be installed into a standard 11 pin base making installation and potential future replacement simple and convenient.

- Compact 11 pin plug-in modules: (H) 80 x (W) 35 x (D) 79 mm

type	supply voltage*	monitored voltage	function	description	price
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Phase failure / sequence relay

The SF1 monitors 3 phase supplies to detect phase failure, phase reversal and phase imbalance. The relay only operates while all three phases are present and in sequence.

SF1110A	110VAC	3 phase	phase failure	plug-in phase failure relay	686.58
SF1400A	400VAC	3 phase	phase failure	plug-in phase failure relay	686.58
SF1525A	525VAC	3 phase	phase failure	plug-in phase failure relay	686.58

- With sensitivity adjustment for Negative Phase Sequence (NPS)

SF1K400A	400VAC	3 phase	phase failure	phase failure with adj.for NPS	710.73
SF1K525A	525VAC	3 phase	phase failure	phase failure with adj.for NPS	710.73

Over / under voltage monitor (incorporating phase failure)

Monitors own supply. Relay will only operate whilst the supply voltage is within the presettable "over" and "under" voltage limits and all three phases present and in sequence. Provides effective power supply supervision and protection.

- Over / under voltage protection
- Phase failure/reversal protection

V1E230A	230 VAC	3 phase	voltage	over / under voltage monitor	990.19
V3E110A	110 VAC	3 phase	voltage	over / under voltage monitor	1 024.69
V3E400A	400 VAC	3 phase	voltage	over / under voltage monitor	1 024.69
V3E525A	525 VAC	3 phase	voltage	over / under voltage monitor	1 024.69
V3EN400A	400 VAC	3 ph + N	voltage	voltage monitor with neutral	1 024.69

Voltage monitor under (or) over voltage

V1C voltage monitor monitors a voltage separate from its supply. Relay will operate while the monitored voltage (below) the preset "over" voltage limit (or) (above) the preset "under" voltage limit.

V1C230A400MV	230 VAC	40 - 400 VAC	voltage	plug-in voltage monitor	920.03
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Frequency monitor

The relay is energised as long as measured frequency is within the presettable limits.

- Upper setting: 50-56 Hz
- Lower setting: 40-50 Hz

H1E0230A	230 VAC	3 phase	frequency	over and under freq monitor	871.73
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Current monitor

The module directly interfaces with conventional 1/5ACTs. The relay only operates as long as monitored current remains below the pre-set upper limit (or) above the pre-set under limit.

- Hysteresis: 5-50% (adjustable)

LA51230A	230 VAC	0 - 1A	current	over (or) under current monitor	1 028.14
LA55230A	230 VAC	0 - 5A	current	over (or) under current monitor	1 028.14
LA55400A	400 VAC	0 - 5A	current	over (or) under current monitor	1 028.14
WA55230A	400 VAC	0 - 5A	current	over and under current monitor	1 028.14

Temperature relay (direct conn. to PT100)

Directly interface with conventional PT100 (3 wire) sensors, the relay energises and remains so until pre-set maximum temperature limit is reached.

- Standard temperature : -20°...+80°C
- Ranges: 80°...180°C

T1R/180S110A	110 VAC	180s	relay	plug-in temperature controller	993.64
T1R/180S230A	230 VAC	180s	relay	plug-in temperature controller	993.64

Converters / Isolators

Compact signal converter with built-in 24VDC power supply for the output. The unit is designed for low amplitude signals where isolation is not needed. (Use SI100 for isolation).

type	supply voltage*	input signal	output signal	description	price
SC120A111230A	230 VAC	0 - 1A	4 - 20mA	current converter	1 529.55
SC120A211230A	230 VAC	0 - 5A	4 - 20mA	current converter	1 529.55

- * Other voltage options available on request.

+ 10%



LV1



LP3



SN1



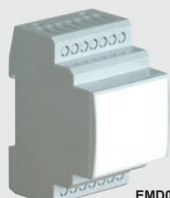
PS3S



EX11 + EX08



EMD02



EMD03

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- Compact 11 pin plug-in modules: (H) 80 x (W) 35 x (D) 79 mm

type	supply voltage*	time range	function	description	price
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Level controllers *(failsafe control and monitoring of high and / or low levels)*

Level control unit of conductive liquids, can be configured for "Filling" or "Emptying" Can be used as a two probe system for alarm purposes or a three probe system to control HIGH and LOW levels of a reservoir. Up to four LV1 can be utilized in the same reservoir by connecting all commons (pin7)

- Emptying/ filling
- Adjustable sensitivity

LV1024A	24 VAC	–	level control	liquid conductive controller	832.63
LV1110A	110 VAC	–	level control	liquid conductive controller	832.63
LV1230A	230 VAC	–	level control	liquid conductive controller	832.63
LV1400A	400 VAC	–	level control	liquid conductive controller	832.63
LV1525A	525 VAC	–	level control	liquid conductive controller	832.63
LV1024D	24 VAC	–	level control	liquid conductive controller	1 240.89
LVC1230A	230 VAC	–	level control	DC capacitive probe controller	777.43

Pump sequence relay - Three circuits

Alternating relays designed to minimize pump and motor wear by equalizing run time between parallel components in a multi-pump system. Controlled by an external control switch.

- Three normally open pump outputs
- Permanent memory for next pump to be activated after power off
- Three pressure switch inputs (*voltage free*)

PSR1230A	230 VAC	3 circuits	relay	pump sequencing relay	947.63
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Pump protection relay

Pump protection relay to safeguard submersible pumps against damage. The unit is easily calibrated to monitor all important pump characteristics.

- Over / under current protection
- Over / under voltage protection and phase rotation (*on 3 phase units*)
- Running dry restart delay / over current retires

Function: Voltage, Current monitoring / Security switch trip / Star / Delta connection

type	supply voltage*	phase time	recovery	description	price
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LP1230A	230 VAC	1 phase	6 hours	pump protection relay	930.38
LP2230A	230 VAC	1 phase	1-2-4-8 hrs	pump protection relay	1 184.54
LP3400A	400 VAC	3 phase	1-2-4-8 hrs	pump protection relay	1 212.14

Accessories for level controls

SN1		single line insulated stainless steel probe for conductive liquids			166.76
PS3S		3 electrode holder (<i>mounts through 50.5 mm hole</i>)			195.51
P1000S		electrodes for PS3S holder (<i>1 meter length</i>)			93.16
FS03-3P		electrode spacer disc (<i>for extended probe length</i>)			37.96
PXL		extension locknut (<i>each</i>)			35.66

Empty plastic housings (for electronic components)

11 pin plug-in black plastic housings

EX01		metal retaining clip for plug-in devices			35.66
EX02		panel mount adaptor for 11 pin modules			94.31
EX11	(H) 80 x (W) 35 x (D) 79	11 pin empty housing complete (<i>black</i>)		31.20	49.46
EX08	front label	blank adhesive label for front of housing			7.71
EX06B	black knob	potentiometer knob for above housing			10.47
EX06G	grey knob	potentiometer knob for above housing			10.47

Empty modular housings - (grey) 6.3 mm terminal centre spacing

- Aligns with standard DIN rail MCBs and modular devices (2 or 3 modules wide)

EMD02	92 x 35.5 x 64	2 module complete housing DIN rail mount			81.69
EMD03	92 x 35.5 x 64	3 module complete housing DIN rail mount			59.81
EMX02	front label	blank adhesive front label for EMD02 (<i>2 modular</i>) housing			18.87
EMX03	front label	blank adhesive front label for EMD03 (<i>3 modular</i>) housing			18.87
EMX04	adj. knob	screw adjustable knob for internal potentiometer			14.03

* Other voltage options available on request.

+ 10%



P44MFT1



P44VM12



P44-HUM1



P44LM1

48 x 48 mm panel mount - timing, counting, control and monitoring devices

Digital timing, counting, control and monitoring devices in a compact panel mounting housing design, incorporate many innovative features such as various relay output options as well as "re-tx" (*re-transmit*) function offering an additional 4-20 mA output with specific monitoring devices.

type	supply voltage	range	No. relays	with 4-20mA	description	price
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Digital timing devices and pre-select counter

- Feature ability to continue from where left off in the event of a power loss during timing

P44MFT1-240A	240 VAC	1sec - 9999 hrs	1	–	multifunction timer	3 031.50
P44MFT1-024AD	24 VAC/DC	1sec - 9999 hrs	1	–	multifunction timer	3 031.50
P44ACT1-240A	240 VAC	1sec - 100 hrs	2	–	accumulation Timer	3 205.16
P44RHM1-240A	240 VAC	1sec - 9999 hrs	1	–	running hour meter	3 031.50
P44CNT1-240A	240 VAC	4/8 digit mode	1	–	counter/frequency indicator	2 990.10
P44CWT1-240A	240 VAC	0-100min/hrs	1	–	digital clockwork timer	3 031.50

Voltage indicator / monitor

- Displays and/or monitors true RMS single or three phase supply voltages
- (N) software selectable neutral monitoring

P44VM12-T-240A	240 VAC	0-300V	2	yes	1 phase voltage indicator	3 673.22
P44VM32N-400A	400 VAC	0-500V	2	–	3 ph voltage & frequency	3 545.57
P44VMD1-240A	240 VAC	0-150V	1	–	DC voltage indicator	2 821.04
P44VMD2-T-240A	240 VAC	0-150V	2	yes	DC voltage indicator	3 046.45

Current monitor

- Displays and/or monitors true RMS AC current signal from current transformers

P44CMA1-5-240A	240 VAC	0-5 A	1	–	p/mnt AC current monitor	3 161.45
P44CMA2-5-T-240A	240 VAC	0-5 A	2	yes	p/mnt AC current monitor	3 887.13
P44CMA2-5-240A	240 VAC	0-5 A	2	–	p/mnt AC current monitor	3 331.66

Humidity controller

P44-HUM1-240A	240 VAC	0-100%	1	–	p/mnt humidity controller	2 692.24
HS4					humidity controller sensor with cable (3 meter)	1 081.04

Temperature controllers

- Displays and/or monitors temperature using various temperature sensors

PT100

P44HTC1-240A	240 VAC	-50°C to 440°C	1	–	temperature controller	2 689.94
P44HTC1-T-024D	24 VDC	-50°C to 440°C	1	yes	temperature controller	3 772.12
P44HTC1-T-240A	240 VAC	-50°C to 440°C	1	yes	temperature controller	3 245.41
P44HTCT1-240A	240 VAC	-50°C to 440°C	1	–	temp cont. + 24hr timer	2 990.10
P44HTC2-240A	240 VAC	-50°C to 440°C	2	–	temperature controller	2 861.29
P44HTC2-T-240A	240 VAC	-50°C to 440°C	2	yes	temperature controller	3 415.61
P44HTC2-T-024D	24 VDC	-50°C to 440°C	2	yes	temperature controller	3 941.18
P44-RTC1-240A	24 VDC	-50°C to 440°C	1	yes	ramp temp controller	2 647.39

Thermocouple

For type J,K,R,S,T,N thermocouples.

P44TTC1-240A	240 VAC	-50°C to 1320°C	1	–	temperature controller	2 733.64
P44TTC1-T-240A	240 VAC	-50°C to 1320°C	1	yes	temperature controller	3 289.11

Signal indicators/monitors (4-20mA) loop

Displays and/or monitors transducer generated signals with outputs 4-20mA as real world values from -999 to 9999 for indicating voltage, current, temperature, pressure etc. and displaying in real values.

Loop indicator

P44LM1-240A	240 VAC	0/4 - 20mA	1	–	p/mount loop indicator	2 821.04
P44LM1-P-240A	240 VAC	0/4 - 20mA	1	*	p/mount loop indicator	3 289.11
P44LM1-T-240A	240 VAC	0/4 - 20mA	1	yes	p/mount loop indicator	3 331.66
P44LM2-240A	240 VAC	0/4 - 20mA	2	–	p/mount loop indicator	2 990.10
P44LM2-P-240A	240 VAC	0/4 - 20mA	2	–	p/mount loop indicator	3 460.46
P44LM2-P-024D	24 VDC	0/4 - 20mA	2	*	p/mount loop indicator	3 986.03
P44LM2-T-240A	240 VAC	0/4 - 20mA	2	yes	p/mount loop indicator	3 503.01

* With 24 VDC power supply output

Note: Other voltage options available on request.

+ 15%



P44RPM1



P49MFT1



P49VM



P49RPM

Signal indicators/monitors (0 - 10V) loop

type	supply voltage	range	No. relays	with 4-20mA	description	price
Displays and/or monitors transducer generated signals with outputs 4-20mA as real world values from - 999 to 9999 for indicating voltage, current, temperature, pressure etc. and displaying in real values.						
P44SM1-10-240A	240 VAC	1 - 10V	1	-	p/mnt signal monitor	2 821.04

RPM / pulses per hour

Displays and/or monitors speed (RPM) relay remains energised while monitored speed is within pre-set parameters NO-NPN proximity switch (<i>PNP available on request</i>)						
P44RPM1-240A	240 VAC	2pph - 9999rpm	1	-	p/mnt RPM monitor	2 821.04
P44RPM2-240A	240 VAC	2pph - 9999rpm	2	-	p/mnt RPM monitor	2 990.10

48 x 96 – Digital timing devices and pre-select counter

48 x 96 mm panel mounting digital timing, counting, control and monitoring devices offer many innovative features such as various relay output options as well as “**re-tx**” (*re-transmit*) function offering an additional 4-20 mA output with specific monitoring devices.

- Feature ability to continue from where left off in the event of a power loss during timing.

P49MFT1-240A	240 VAC	1sec - 9999 hrs	1	-	multi-function timer	3 074.05
P49MFT1-024AD	24 VAC/DC	1sec - 9999 hrs	1	-	multi-function timer	3 074.05
P49ACT1-240A	240 VAC	1sec - 100 hrs	1	-	accumulation timer	3 245.41
P49CNT1-240A	240 VAC	4 digit mode	1	-	counter/frequency monitor	3 031.50
P49CNT1-024AD	24 VAC/DC	4 digit mode	1	-	counter/frequency monitor	3 031.50
P49CWT1-240A	240 VAC	0 - 100min or hrs	1	-	digital clockwork timer	3 074.05

Voltage indicator / monitor

- Displays and/or monitors true RMS single or three phase supply voltages
- (N) software selectable neutral monitoring as well.

P49VM10-240A	240 VAC	0 - 300V	1	yes	1 phase voltage monitor	2 776.19
P49VM31N-400A	400 VAC	0 - 500V	1	-	3ph voltage/frequency ind.	3 415.61
P49VM32N-400A	400 VAC	0 - 500V	2	-	3ph voltage/frequency ind.	3 588.12
P49VMD2-240A	240 VAC	0 - 150V	2	-	DC voltage indicator	3 374.21

Current monitors

P49CMA1-5-240A	240 VAC	0 - 5 A	1	-	AC current monitor	3 161.45
P49CMA2-5-240A	240 VAC	0 - 5A	2	-	AC current monitor	3 331.66
P49CMD1-240A	240 VAC	0 - 50mV	1	-	DC current monitor	3 161.45

Temperature controllers

- Displays and/or monitors temperature from various temperature sensors.
Can be used with one or two TS3 temperature probes (for high and low temp monitoring)

TS3 probe

P49TC1-240A	240 VAC	-30°C to 105°C	1	TS3 probe	temperature controller	2 689.94
P49TC2-240A	240 VAC	-30°C to 105°C	2	TS3 probe	temperature controller	2 861.29
TS3	temperature probe + cable			for above controllers	(3 meter)	500.27

PT100

P49HTC1-240A	240 VAC	-50°C to 440°C	1	PT100	temperature controller	3 074.05
P49HTC1-T-240A	240 VAC	-50°C to 440°C	1	PT100	temperature controller	3 971.08
P49HTC2-240A	240 VAC	-50°C to 440°C	2	PT100	temperature controller	3 245.41

Thermocouple *for type J,K,R,S,T,N thermocouples*

P49TTC1-240A	240 VAC	-50°C to 1320°C	1	thermocouple	temperature controller	3 118.90
P49TTC2-T-240A	240 VAC	-50°C to 1320°C	2	thermocouple	temperature controller	4 186.14

RPM / pulses per hour

Displays and/or monitors speed (RPM) relay remains energised while monitored speed is within pre-set parameters.						
P49RPM1-02AD	12 VAC/DC	2pph - 9999rpm	1	-	p/mnt RPM monitor	3 388.01
P49RPM1-240A	240 VAC	2pph - 9999rpm	1	-	p/mnt RPM monitor	2 861.29
P49RPM1-024AD	24 VAC/DC	2pph - 9999rpm	1	-	p/mnt RPM monitor	3 388.01
P49RPM1-T-240A	240 VAC	2pph - 9999rpm	1	yes	p/mnt RPM monitor	3 758.32
Note: Other voltage options available on request.						+ 15%

Timers & control relays



P49LM



P49CMA



D3CNT1



D3VM

Signal indicators / monitors 4 - 20mA loop

Displays and/or monitors transducer generated signals with outputs 4-20mA as real world values from -999 to 9999 for indicating voltage, current, temperature, pressure etc. and displaying in real values

type	supply voltage	range	No. relays	with 4-20mA	description	price
P49LM1-024D	24 VDC	0/4 - 20mA	1	-	loop monitor	3 729.57
P49LM1-P-024D	24 VDC	0/4 - 20mA	1	*	loop monitor	4 241.34
P49LM1-240A	240 VAC	0/4 - 20mA	1	-	loop monitor	3 205.16
P49LM1-P-240A	240 VAC	0/4 - 20mA	1	*	loop monitor	3 715.77
P49LM1-T-240A	240 VAC	0/4 - 20mA	1	yes	loop monitor	4 101.03
P49LM1-T-024D	24 VDC	0/4 - 20mA	1	yes	loop monitor	5 015.31
P49LM1-P-T-240A	240 VAC	0/4 - 20mA	1	*	loop monitor	4 612.80
P49LM2-240A	240 VAC	0/4 - 20mA	2	-	loop monitor	3 374.21
P49LM2-P-240A	240 VAC	0/4 - 20mA	2	*	loop monitor	3 887.13
P49LM2-P-T-240A	240 VAC	0/4 - 20mA	2	*	loop monitor	4 785.30
P49LM2-T-240A	240 VAC	0/4 - 20mA	2	yes	loop monitor	4 271.24

* With 24VDC power supply output

Signal indicator / monitors - 0 - 10V input

Displays and/or monitors transducer generated signals with outputs 0-10V as real world values from -999 to 9999 for indicating voltage, current, temperature, pressure etc. and displaying in real values.

P49SM1-10-024A	24 VAC	1 - 10V	1	-	signal monitor	3 205.16
P49SM1-10-024D	24 VDC	1 - 10V	1	yes	signal monitor	3 729.57
P49SM1-10-T-240A	240 VAC	1 - 10V	1	yes	signal monitor	4 101.03
P49SM1-10-240A	240 VAC	1 - 10V	1	-	signal monitor	3 205.16
P49SM2-10-240A	240 VAC	1 - 10V	2	-	signal monitor	3 374.21
P49SM2-10-T-240A	240 VAC	1 - 10V	2	yes	signal monitor	4 271.24
P49SM2-10-T-024D	24 VDC	1 - 10V	2	yes	signal monitor	4 796.81

D3 series - DIN rail mount - Timing, counting, control and monitoring devices

Modular DIN rail mounting digital timing, counting, control and monitoring devices available in a compact housing design. Offers many innovative features such as various relay output options as well as "re-tx" (re-transmit) function offering an additional 4-20 mA output with specific monitoring devices.

- Connection: Plug in termination (for ease of replacement)
- Mounting: DIN rail mounting (3-module wide - 54 mm)
- Display: Dual colour LED display

Digital timing devices and pre-select counter

Feature ability to continue from where left off in the event of a power loss during timing.

D3MFT1-240A	240 VAC	1sec - 9999 hrs	1	-	multi-function timer	3 204.01
D3ACT1-240A	240 VAC	1sec - 100 hrs	2	-	accumulation timer	3 374.21
D3RHM1-240A	240 VAC	1sec - 9999 hrs	1	-	running hour meter	3 205.16
D3CNT1-240A	240 VAC	4 or 8 digit mode	1	-	counter/frequency monitor	3 161.45

Voltage indicator / monitor (DIN rail mount)

Monitors and displays true RMS single or three phase supply voltages. (N) software selectable neutral monitoring as well

D3VM31N-400A	400 VAC	0 - 500V (3ph)	1	-	3 ph voltage & frequency	3 545.57
D3VM32N-400A	400 VAC	0 - 500V (3ph)	2	-	3 ph voltage & frequency	3 716.92
D3VMD1-240A	240 VAC	-	1	-	DC voltage monitor	2 990.10
D3VMD2-024D	24 VDC	-	2	-	DC voltage monitor	3 687.02
D3VMD2-T-240A	240 VAC	-	2	yes	DC voltage monitor	3 715.77

Current monitor (DIN rail mount)

Monitors and displays true RMS AC current signal from current transformers.

D3CMA1-5-240A	240 VAC	0 - 5 A	1	-	AC current monitor	3 331.66
D3CMA2-5-240A	240 VAC	0 - 5 A	2	-	AC current monitor	3 505.31
D3CMD2-T-240A	240 VAC	0 - 50mV	2	yes	AC current monitor	4 057.33

Note: Other voltage options available on request.

+ 15%



D3TC1



D3LM

Temperature controllers

Monitors and displays temperature using various temperature sensors.

- Can be used with one or two **TS3** temperature probes (for high and low temp monitoring)

type	supply voltage	range	No. relays	with 4 - 20mA	description	price
TS3 probe						
D3TC1-240A	240 VAC	-30°C to 105°C	1	TS3 probe	temperature controller	2 821.04
D3TC2-240A	240 VAC	-30°C to 105°C	2	TS3 probe	temperature controller	2 990.10
D3TCT1-240A	240 VAC	-30°C to 105°C	1	TS3 probe	temp cont. + 24hr timer	3 074.05
TS3	temperature probe and cable for above controllers (3 meter)					500.27
PT100						
D3HTC1-240A	240 VAC	-50°C to 440°C	1	PT100	temperature controller	2 861.29
D3HTC2-240A	240 VAC	-50°C to 440°C	2	PT100	temperature controller	3 031.50
D3HTC2-T-240A	240 VAC	-50°C to 440°C	2	PT100	temperature controller	3 580.07
D3HTC1-T-240A	240 VAC	-50°C to 440°C	1	PT100	temperature controller	3 415.61
D3HTCT1-240A	240 VAC	-50°C to 440°C	1	PT100	temp cont. + 24hr timer	3 109.70
Thermocouple						
D3TTC1-240A	240 VAC	-50°C to 1320°C	1	thermocouple	temperature controller	2 910.75
D3TTC1-024AD	24 VAC/DC	-50°C to 1320°C	1	thermocouple	temperature controller	3 436.31
D3TTC2-T-240A	240 VAC	-50°C to 1320°C	2	thermocouple	temperature controller	3 628.37

D3 series - DIN rail mount - Signal indicators / monitors - 4 - 20 mA LOOP

Displays and monitors transducer generated signals with outputs 4 - 20mA as real world values from -999 to 9999 for indicating voltage, current, temperature, pressure etc. and displaying in real values.

D3LM1-240A	240 VAC	0/4 - 20mA	1	-	loop monitor	2 990.10
D3LM1-P-240A	240 VAC	0/4 - 20mA	1	*	loop monitor	3 460.46
D3LM1-T-240A	240 VAC	0/4 - 20mA	1	yes	loop monitor	3 545.57
D3LM2-240A	240 VAC	0/4 - 20mA	2	-	loop monitor	3 161.45
D3LM2-P-240A	240 VAC	0/4 - 20mA	2	*	loop monitor	3 629.52
D3LM2-T-240A	240 VAC	0/4 - 20mA	2	-	loop monitor	3 715.77
D3SM2-10-T-240A	240 VAC	0 - 10V**	2	yes	loop monitor	3 716.92

* With 24 VDC power supply output

Humidity temperature controllers

D3HUM1240A	240 VAC	0 - 100%	1		humidity controller	2 714.09
HS4	-	-			humidity controller probe with cable (3m length)	1 081.04
Note: Other voltage options available on request.						+ 15%



Panasonic

Huba Control

