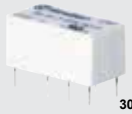
TIMERS & CONTROL RELAYS

J

PCB mount relays		Finder	J-1..3
Plug-in relays		Finder	J-2..8
Power relays		Finder	J-7
Relay interface modules		Finder	J-9...10
Modular contactors		Finder	J-11
Stepping relays		Finder	J-12
Solid state relays		Celduc	J-13...16
Modular timing devices		Lovato Klemsan Electrodev	J-17 J-22 J-27
Plug-in timing/ Monitoring devices		Electrodev Delta	J-31..36 J-21
Modular protection relays		Lovato Klemsan Electrodev	J-18...19 J-22 J-27...29
Level control		Lovato Klemsan Electrodev	J-19...20 J-22 J-28/35
Electromechanical motorised timers		CDC	J-21
Temperature controllers		Delta	J-24...25
Thermocouples/ RTD sensors		EM	J-26
Digital Timers/ Counters/ Controllers		Delta Electrodev Icon	J-21 J-30 J-37...41
Analog signal converters		Klemsan Electrodev	J-23 J-28/33


3022...

30 series Subminiature DIL relay *(11.4 x 20.3 x 10.1 mm)*

- 2-pole changeover contacts low level switching capability - 2A
- Sensitive DC coil - 200mW
- Wash tight: RT III

type	switch current	description	contact	pin pitch (mm)	coil voltage	price
302270120010	2A	sealed DIL PCB relay	2 ch/over	5.08	12 VDC	**56.00**
302270240010	2A	sealed DIL PCB relay	2 ch/over	5.08	24 VDC	**56.00**
302270480010	2A	sealed DIL PCB relay	2 ch/over	5.08	48 VDC	**69.00**


3221...

32 series Subminiature low profile relay *(10.7 x 20 x 10 mm)*

- 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	**48.00**
322170244000	6A	low profile PCB relay	1 ch/over	7.62	24 VDC	**48.00**
322170484000	6A	low profile PCB relay	1 ch/over	7.62	48 VDC	**52.00**


3451...


3481...

34 series Ultra-slim relay *(5 mm)* *(15 x 28 x 5 mm)*

EMR - Electromechanical relays

- 1-pole changeover contact - 6A
- 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	**85.00**
345170120010	6A	ultra-slim PCB relay	1 ch/over	5	12 VDC	**61.00**
345170240010	6A	ultra-slim PCB relay	1 ch/over	5	24 VDC	**61.00**
345170480010	6A	ultra-slim PCB relay	1 ch/over	5	48 VDC	**85.00**
345170600010	6A	ultra-slim PCB relay	1 ch/over	5	60 VDC	**98.00**


9311

SSR - Solid State relays *Silent, high speed switching with long electrical life*

- 1-NO single circuit switching - 6A, 24 VDC / 2A, 240 VAC
- Sensitive DC input circuit
- 3.000 V insulation, input-output

				operating	switching	
348170129024	6A	slim solid state relay	1 NO	8 - 17 VDC	1.5 - 33 VDC	**245.00**
348170249024	6A	slim solid state relay	1 NO	16 - 30 VDC	1.5 - 33 VDC	**257.00**
348170609024	6A	slim solid state relay	1 NO	35 - 72 VDC	1.5 - 33 VDC	**257.00**
348170248240	2A	slim solid state relay	1 NO	16 - 30 VDC	12 - 275 VAC	**273.00**
348170608240	2A	slim solid state relay	1 NO	35 - 72 VDC	12 - 275 VAC	**273.00**

9311	PCB-mount socket with hinged retain/release clip for 34 series relays	**28.00**


3611...

36 series Miniature "sugar cube" relay *(15.5 x 19 x 15.2 mm)*

- 1-pole changeover contact 10A
- DC coil - 360mW
- Wash tight: RTIII

361190124011	10A	"sugar cube" PCB relay	1 ch/over	–	12 VDC	**28.00**
361190244011	10A	"sugar cube" PCB relay	1 ch/over	–	24 VDC	**28.00**


4131...

41 series Low-profile PCB relay *(15.7 x 29 x 12.6 mm)*

- 1 and 2 pole changeover contact 8/12/16A
- DC coil - 400mW
- 8mm 6kV (1.2/50 µs) insulation, coil-contacts
- Flux proof: RT II *(standard)*

EMR - Electromechanical relays

413190120010	12A	low-profile PCB relay	1 ch/over	3.5	12 VDC	**50.00**
413190240010	12A	low-profile PCB relay	1 ch/over	3.5	24 VDC	**50.00**
416190120010	16A	low-profile PCB relay	1 ch/over	5	12 VDC	**53.00**
416190240010	16A	low-profile PCB relay	1 ch/over	5	24 VDC	**53.00**
415290120010	8A	low-profile PCB relay	2 ch/over	5	12 VDC	**59.00**
415290240010	8A	low-profile PCB relay	2 ch/over	5	24 VDC	**59.00**


4181...

SSR - Solid State relays

- 1-NO single circuit switching 3/5A
- Silent, high speed switching with long electrical life
- 2.500 V insulation, input-output

				operating	switching	
418170249024	5A	solid state PCB relay	1 NO	14 - 32 VDC	1.5 - 24 VDC	**281.00**
418170248240	3A	solid state PCB relay	1 NO	14 - 32 VDC	12 - 275 VAC	**268.00**

Other voltages available on request.

Above prices do not include VAT. E&OE


4051...

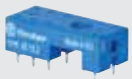

4061...


4052...


4062...


9505SPA


ER902220


95152SMA


ES50CNER


4341...


9523SNA

40 series Miniature PCB relays *(25 x 29 x 12.4 mm)*

- 8 mm, 6kV (1.2/50µs) isolation, coil-contacts
- Flux proof: RT II *(standard)*

type	current	description	contact	pin pitch	coil voltage	price
405180120000	10A	miniature PCB relay	1 ch/over	5 mm	12 VAC	**58.00**
405180240000	10A	miniature PCB relay	1 ch/over	5 mm	24 VAC	**58.00**
405180480000	10A	miniature PCB relay	1 ch/over	5 mm	48 VAC	**66.00**
405181100000	10A	miniature PCB relay	1 ch/over	5 mm	110 VAC	**75.00**
405182400000	10A	miniature PCB relay	1 ch/over	5 mm	240 VAC	**94.00**
405190120000	10A	miniature PCB relay	1 ch/over	5 mm	12 VDC	**42.00**
405190240000	10A	miniature PCB relay	1 ch/over	5 mm	24 VDC	**42.00**
405190360000	10A	miniature PCB relay	1 ch/over	5 mm	36 VDC	**56.00**
405190480000	10A	miniature PCB relay	1 ch/over	5 mm	48 VDC	**56.00**
405191100000	10A	miniature PCB relay	1 ch/over	5 mm	110 VDC	**64.00**
406180120000	16A	miniature PCB relay	1 ch/over	5 mm	12 VAC	**61.00**
406180240000	16A	miniature PCB relay	1 ch/over	5 mm	24 VAC	**61.00**
406180480000	16A	miniature PCB relay	1 ch/over	5 mm	48 VAC	**68.00**
406181100000	16A	miniature PCB relay	1 ch/over	5 mm	110 VAC	**77.00**
406182400000	16A	miniature PCB relay	1 ch/over	5 mm	240 VAC	**97.00**
406190120000	16A	miniature PCB relay	1 ch/over	5 mm	12 VDC	**44.00**
406190240000	16A	miniature PCB relay	1 ch/over	5 mm	24 VDC	**44.00**
406190360000	16A	miniature PCB relay	1 ch/over	5 mm	36 VDC	**57.00**
406190480000	16A	miniature PCB relay	1 ch/over	5 mm	48 VDC	**57.00**
406191100000	16A	miniature PCB relay	1 ch/over	5 mm	110 VDC	**66.00**
405280120000	8A	miniature PCB relay	2 ch/over	5 mm	12 VAC	**69.00**
405280240000	8A	miniature PCB relay	2 ch/over	5 mm	24 VAC	**69.00**
405280480000	8A	miniature PCB relay	2 ch/over	5 mm	48 VAC	**76.00**
405281100000	8A	miniature PCB relay	2 ch/over	5 mm	110 VAC	**85.00**
405282400000	8A	miniature PCB relay	2 ch/over	5 mm	240 VAC	**105.00**
405290120000	8A	miniature PCB relay	2 ch/over	5 mm	12 VDC	**51.00**
406290120000	10A	miniature PCB relay	2 ch/over	5 mm	12 VDC	**61.00**
405290240000	8A	miniature PCB relay	2 ch/over	5 mm	24 VDC	**51.00**
406290240000	10A	miniature PCB relay	2 ch/over	5 mm	24 VDC	**61.00**
405290360000	8A	miniature PCB relay	2 ch/over	5 mm	36 VDC	**65.00**
405290480000	8A	miniature PCB relay	2 ch/over	5 mm	48 VDC	**65.00**
405291100000	8A	miniature PCB relay	2 ch/over	5 mm	110 VDC	**73.00**

Other voltages available on request.

Other configurations: *replace **5th digit** with following: (e.g. 40516**0**120000)*

6	Bistable *(single coil)* version	**42.00**
7	DC sensitive coil version 0.5 W	**4.00**

Sockets and accessories for 40 series relays — for relay

95152SMA	PCB mount socket *(with retaining clip)* for relay	40 series	**18.40**
9505SPA*	surface/DIN mount socket *(screw terminal)* with retaining clip	40 series	**74.00**
95P5SPA*	surf/DIN mount socket *(push-in terminal)* with retaining clip	40 series	**100.00**
09518	8 way jumper link for sockets	9505	**41.00**
09758	8 way jumper link for sockets	95P5	**80.00**
46392/PS	sheet of (48) marking tags *(mounts onto retain clip or holder)*	9505/P5	**72.00**
09700	tag holder for **46392/PS** *(mounts directly onto socket)* *(10pcs)*	9505/P5	**25.00**

* *Accepts plug-in LED, diode, timing modules (plugs directly into socket) see page **J-8***

ES50CNER	Ersce black surface/DIN mount socket *(screw terminal)*	40 series	**57.00**
ER902220	spring securing/release clip for socket *(10pcs)*	ES50	**63.00**
ER902230	clip-on marking plate *(top or bottom)* for socket *(10pcs)*	ES50	**42.00**

43 series Low-profile slimline PCB relays *(15.4 x 28.6 x 10.2 mm)*

- 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	**42.00**
434170242000	10A	low profile slim PCB relay	1 ch/over	3.2 mm	24 VDC	**42.00**

9523SNA	PCB-mount socket 43 series relay *(with retaining clip)*	4341	**17.90**


46618...


46619...


46528...


9711


9702SPA


5514...

46 series Miniature industrial plug-in relays *(32.8 x 29 x 12.4 mm)*

- AC and DC coil voltages
- Lockable test/override button
- 8 mm, 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)*

type	current	description	contact	coil voltage	price
466180120040	16A	miniature plug-in relay	1 ch/over	12 VAC	**94.00**
466180240040	16A	miniature plug-in relay	1 ch/over	24 VAC	**94.00**
466180480040	16A	miniature plug-in relay	1 ch/over	48 VAC	**101.00**
466181100040	16A	miniature plug-in relay	1 ch/over	110 VAC	**109.00**
466182300040	16A	miniature plug-in relay	1 ch/over	230 VAC	**132.00**
466190120040	16A	miniature plug-in relay	1 ch/over	12 VDC	**75.00**
466190240040	16A	miniature plug-in relay	1 ch/over	24 VDC	**75.00**
466190480040	16A	miniature plug-in relay	1 ch/over	48 VDC	**92.00**
466191100040	16A	miniature plug-in relay	1 ch/over	110 VDC	**101.00**
465280120040	8A	miniature plug-in relay	2 ch/over	12 VAC	**108.00**
465280240040	8A	miniature plug-in relay	2 ch/over	24 VAC	**108.00**
465280480040	8A	miniature plug-in relay	2 ch/over	48 VAC	**114.00**
465281100040	8A	miniature plug-in relay	2 ch/over	110 VAC	**122.00**
465282300040	8A	miniature plug-in relay	2 ch/over	230 VAC	**148.00**
465290120040	8A	miniature plug-in relay	2 ch/over	12 VDC	**88.00**
465290240040	8A	miniature plug-in relay	2 ch/over	24 VDC	**88.00**
465290480040	8A	miniature plug-in relay	2 ch/over	48 VDC	**104.00**
465291100040	8A	miniature plug-in relay	2 ch/over	110 VDC	**115.00**
Other configurations:		*replace **last two digits** with following: (e.g.466180120054)*			
54		internal LED indicator for AC relays			**17.00**
74		internal LED indicator for DC relays			**17.00**

Sockets and accessories for 46 series relays		for relay	
9711	PCB mount socket for relay	4661	**39.00**
9712	PCB mount socket for relay	4652	**48.00**
9701SPA*	surface/DIN mount socket *(screw terminal)* with retaining clip	ser 4661	**71.00**
9702SPA*	surface/DIN mount socket *(screw terminal)* with retaining clip	ser 4652	**78.00**
97P1SPA*	surface/DIN mount socket *(push-in terminal)* with retaining clip	ser 4661	**93.00**
97P2SPA*	surface/DIN mount socket *(push-in terminal)* with retaining clip	ser 4652	**102.00**
04607	DIN rail mountable support bracket for relays	4661/52	**30.00**
09518	8 way jumper link for sockets	9701/02	**41.00**
09758	8 way jumper link for sockets	97P1/2	**80.00**
46392/PS	sheet of (48) marking tags *(mounts onto retain clip or holder)*	970/P1/2	**72.00**
09700	tag holder for **46392/PS** tags *(mounts directly onto socket) (10pcs)*	970/P1/2	**25.00**

* *Accepts plug-in LED, diode, timing modules (plugs directly into socket) see page **J-8***

55 series Miniature industrial PCB mount relays *(32.8 x 29 x 12.4 mm)*

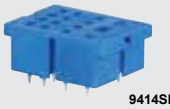
PCB mount termination

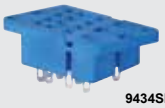
551280120000	10A	miniature PCB mount relay	2 ch/over	12 VAC	**110.00**
551280240000	10A	miniature PCB mount relay	2 ch/over	24 VAC	**110.00**
551281100000	10A	miniature PCB mount relay	2 ch/over	110 VAC	**129.00**
551282400000	10A	miniature PCB mount relay	2 ch/over	230 VAC	**121.00**
551290120000	10A	miniature PCB mount relay	2 ch/over	12 VDC	**110.00**
551290240000	10A	miniature PCB mount relay	2 ch/over	24 VDC	**110.00**
551290480000	10A	miniature PCB mount relay	2 ch/over	48 VDC	**129.00**
551291100000	10A	miniature PCB mount relay	2 ch/over	110 VDC	**121.00**
551292200000	10A	miniature PCB mount relay	2 ch/over	220 VDC	**219.00**
551480120000	7A	miniature PCB mount relay	4 ch/over	12 VAC	**116.00**
551480240000	7A	miniature PCB mount relay	4 ch/over	24 VAC	**116.00**
551481100000	7A	miniature PCB mount relay	4 ch/over	110 VAC	**136.00**
551482400000	7A	miniature PCB mount relay	4 ch/over	230 VAC	**129.00**
551490120000	7A	miniature PCB mount relay	4 ch/over	12 VDC	**116.00**
551490240000	7A	miniature PCB mount relay	4 ch/over	24 VDC	**116.00**
551490480000	7A	miniature PCB mount relay	4 ch/over	48 VDC	**136.00**
551491100000	7A	miniature PCB mount relay	4 ch/over	110 VDC	**129.00**
551492200000	7A	miniature PCB mount relay	4 ch/over	220 VDC	**226.00**

Above prices do not include VAT. E&OE


55328...


55329...


9414SMA


9434SMA


9402SPA


ER600420


ES152NCNER

55 series Miniature industrial relays *(37.2 x 20.7 x 27.7 mm)*

Plug-in termination

- 2, 3 and 4 pole versions
- AC and DC coil voltages
- Plug-in or direct PCB mounting
- Lockable test/override button *(plug-in version only)*
- Mechanical flag indication of relay status *(plug-in version only)*

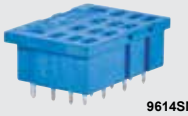
type	current	description	contact	coil voltage	price
2 changeover contacts					
553280120040	10A	miniature plug-in relay	2 changeover	12 VAC	**108.00**
553280240040	10A	miniature plug-in relay	2 changeover	24 VAC	**108.00**
553280360040	10A	miniature plug-in relay	2 changeover	36 VAC	**127.00**
553280480040	10A	miniature plug-in relay	2 changeover	48 VAC	**127.00**
553280600040	10A	miniature plug-in relay	2 changeover	60 VAC	**127.00**
553281100040	10A	miniature plug-in relay	2 changeover	110 VAC	**127.00**
553282300040	10A	miniature plug-in relay	2 changeover	240 VAC	**120.00**
553290120040	10A	miniature plug-in relay	2 changeover	12 VDC	**108.00**
553290240040	10A	miniature plug-in relay	2 changeover	24 VDC	**108.00**
553290360040	10A	miniature plug-in relay	2 changeover	36 VDC	**127.00**
553290480040	10A	miniature plug-in relay	2 changeover	48 VDC	**127.00**
553290600040	10A	miniature plug-in relay	2 changeover	60 VDC	**127.00**
553291100040	10A	miniature plug-in relay	2 changeover	110 VDC	**120.00**
553292200040	10A	miniature plug-in relay	2 changeover	220 VDC	**218.00**
4 changeover contacts					
553480120040	7A	miniature plug-in relay	4 changeover	12 VAC	**115.00**
553480240040	7A	miniature plug-in relay	4 changeover	24 VAC	**115.00**
553480360040	7A	miniature plug-in relay	4 changeover	36 VAC	**135.00**
553480480040	7A	miniature plug-in relay	4 changeover	48 VAC	**135.00**
553480600040	7A	miniature plug-in relay	4 changeover	60 VAC	**135.00**
553481100040	7A	miniature plug-in relay	4 changeover	110 VAC	**135.00**
553482400040	7A	miniature plug-in relay	4 changeover	240 VAC	**127.00**
553490120040	7A	miniature plug-in relay	4 changeover	12 VDC	**115.00**
553490240040	7A	miniature plug-in relay	4 changeover	24 VDC	**115.00**
553490360040	7A	miniature plug-in relay	4 changeover	36 VDC	**135.00**
553490480040	7A	miniature plug-in relay	4 changeover	48 VDC	**135.00**
553490600040	7A	miniature plug-in relay	4 changeover	60 VDC	**135.00**
553491100040	7A	miniature plug-in relay	4 changeover	110 VDC	**127.00**
553492200040	7A	miniature plug-in relay	4 changeover	220 VDC	**225.00**
Other configurations:		*replace **last two digits** with following: (e.g.553280120074)*			
54		internal LED indicator for		AC relays	**19.00**
74		internal LED indicator for		DC relays	**19.00**

Sockets and accessories for 55 series relays

type		description		for relay	
9412SMA		2 pole PCB mount socket for relay		5532	**31.00**
9414SMA		4 pole PCB mount socket for relay		5534	**33.00**
9432SMA		2 pole flange mount socket *(solder terminal)*		5532	**31.00**
9434SMA		4 pole flange mount socket *(solder terminal)*		5534	**33.00**
9402SPA*		surface/DIN mnt socket *(screw terminal)* with retaining clip		5532	**74.00**
9404SPA*		surface/DIN mnt socket *(screw terminal)* with retaining clip		5534	**83.00**
94P4SPA*		surface/DIN mount socket *(push-in terminal)* with retaining clip		5532/4	**107.00**
05627		DIN rail mountable support bracket for		5532/34	**23.00**
09406		6 way jumper link *(bridge bar)* for socket		9402/04	**39.00**
09456		6 way jumper link *(bridge bar)* for socket		94P4	**56.00**
09471		retaining clip	*(10pcs)*	94 series	**29.00**
46392/PS		sheet of (48) marking tags *(mounts onto retain clip or holder)*		940/P2/4	**72.00**
09700		tag holder for **46392/PS** tags *(mounts directly onto socket) (10pcs)*		940/P2/4	**25.00**
* *Accepts plug-in LED, diode, timing modules (plugs directly into socket) see pg* ***J-8***					
ES152NCNER	**Ersce**	black surface/DIN mount socket *(screw terminal)*		5532	**64.00**
ES154NCNER	**Ersce**	black surface/DIN mount socket *(screw terminal)*		5534	**73.00**
ER600420		spring securing/release clip for socket	*(10pcs)*	ES15	**73.00**
ER600210		clip-on marking plate *(top or bottom)* for socket	*(10pcs)*	ES15	**42.00**

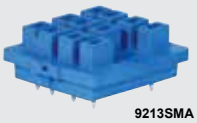

5632...


5634...


9614SMA


9604SMA


6233...


9213SMA


9203SMA

56 series Miniature power relays *(37.2 x 20.7(2pole) 40.8(4pole) x 27.7 mm)*

- Faston 187, 4.8 x 0.5 mm termination
- Mechanical flag indication of relay status
- Lockable test/override button

type	current	description	contact configuration	coil voltage	price
563280120040	12A	miniature power relay	2 changeover	12 VAC	**136.00**
563280240040	12A	miniature power relay	2 changeover	24 VAC	**136.00**
563280480040	12A	miniature power relay	2 changeover	48 VAC	**155.00**
563281100040	12A	miniature power relay	2 changeover	110 VAC	**155.00**
563282400040	12A	miniature power relay	2 changeover	240 VAC	**155.00**
563290120040	12A	miniature power relay	2 changeover	12 VDC	**136.00**
563290240040	12A	miniature power relay	2 changeover	24 VDC	**136.00**
563290480040	12A	miniature power relay	2 changeover	48 VDC	**155.00**
563290600040	12A	miniature power relay	2 changeover	60 VDC	**155.00**
563291100040	12A	miniature power relay	2 changeover	110 VDC	**155.00**
563292200040	12A	miniature power relay	2 changeover	220 VDC	**245.00**
563480120040	12A	miniature power relay	4 changeover	12 VAC	**249.00**
563480240040	12A	miniature power relay	4 changeover	24 VAC	**249.00**
563480480040	12A	miniature power relay	4 changeover	48 VAC	**265.00**
563481100040	12A	miniature power relay	4 changeover	110 VAC	**265.00**
563482400040	12A	miniature power relay	4 changeover	240 VAC	**265.00**
563490120040	12A	miniature power relay	4 changeover	12 VDC	**249.00**
563490240040	12A	miniature power relay	4 changeover	24 VDC	**249.00**
563490480040	12A	miniature power relay	4 changeover	48 VDC	**265.00**
563490600040	12A	miniature power relay	4 changeover	60 VDC	**265.00**
563491100040	12A	miniature power relay	4 changeover	110 VDC	**265.00**
563492200040	12A	miniature power relay	4 changeover	220 VDC	**358.00**
Other configurations:		*replace **last two digits** with following: (e.g 563280120040**74**)*			
54		internal LED indicator for		AC relays	**42.00**
74		internal LED indicator for		DC relays	**42.00**
PCB termination:		replace **3rd digit 56 (3)** with a **(4)** *(e.g.56**4**280120040)*			

Sockets and accessories for 56 series relays		for relay	
9612SMA	PCB mount socket for relay	5632	**34.00**
9614SMA	PCB mount socket for relay	5634	**41.00**
9602SPA*	surface/DIN mount socket *(screw terminal)* with retaining clip	5632	**89.00**
9604SMA*	surface/DIN mount socket *(screw terminal)* with retaining clip	5634	**106.00**
05627	DIN rail mountable support bracket	5632	**23.00**
05647	DIN rail mountable support bracket	5634	**24.00**
* *Accepts plug-in LED, diode, timing modules (plugs directly into socket) see page **J-8***			*(per pack)*
095004	spare marking tag *(10pcs)* for sockets	5632	**19.40**
090002	spare marking tag *(10pcs)* for sockets	5634	**19.40**

62 series Plug-in power relays *(49.1 x 38.2 x 35.8 mm)*

- 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

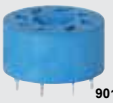
623380120040	16A	plug-in industrial power relay	3 changeover	12 VAC	**167.00**
623380240040	16A	plug-in industrial power relay	3 changeover	24 VAC	**167.00**
623380480040	16A	plug-in industrial power relay	3 changeover	48 VAC	**182.00**
623381100040	16A	plug-in industrial power relay	3 changeover	110 VAC	**182.00**
623382400040	16A	plug-in industrial power relay	3 changeover	240 VAC	**177.00**
623384000040	16A	plug-in industrial power relay	3 changeover	400 VAC	**216.00**
623390120040	16A	plug-in industrial power relay	3 changeover	12 VDC	**167.00**
623390240040	16A	plug-in industrial power relay	3 changeover	24 VDC	**167.00**
623390480040	16A	plug-in industrial power relay	3 changeover	48 VDC	**182.00**
623391100040	16A	plug-in industrial power relay	3 changeover	110 VDC	**177.00**
623392200040	16A	plug-in industrial power relay	3 changeover	220 VDC	**253.00**
Other configurations:		*replace **last two digits** with following: (e.g 623380120074)*			
54		internal LED indicator for		AC relays	**42.00**
74		internal LED indicator for		DC relays	**42.00**

Sockets and accessories for 62 series relays		for relay	
9213SMA	PCB mount socket for relay	6233	**34.00**
9233SMA	panel mnt *(flange)* solder terminal socket for relay	6233	**34.00**
9203SMA	surface/DIN mount socket *(screw terminal)* standard	6233	**118.00**
06207	DIN rail mountable support bracket *(top mount)*	6233	**23.00**
06208	DIN rail mountable support bracket *(rear mount)*	6233	**23.00**

Above prices do not include VAT. E&OE


6012...


6013...

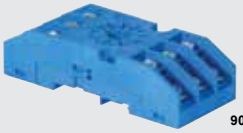

9015


9013


9020SMA


9026SMA


9027SMA


9048SMA


9003SMA


ES11CNER

60 series General purpose plug-in relays *(54.2 x 32.5 x 36.4 mm)*

- AC and DC coil voltages
- Lockable test/override button
- 2 pole (8 pin) and 3 pole (11 pin) changeover versions
- 8pin *(2pole)* 11pin *(3pole)* 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

type	current	pins	description	contact configuration	coil voltage	price
601280120040	10A	8 pin	plug-in industrial relay	2 ch/over	12 VAC	**150.00**
601280240040	10A	8 pin	plug-in industrial relay	2 ch/over	24 VAC	**150.00**
601280360040	10A	8 pin	plug-in industrial relay	2 ch/over	36 VAC	**166.00**
601280480040	10A	8 pin	plug-in industrial relay	2 ch/over	48 VAC	**166.00**
601280600040	10A	8 pin	plug-in industrial relay	2 ch/over	60 VAC	**166.00**
601281100040	10A	8 pin	plug-in industrial relay	2 ch/over	110 VAC	**166.00**
601282400040	10A	8 pin	plug-in industrial relay	2 ch/over	240 VAC	**161.00**
601284000040	10A	8 pin	plug-in industrial relay	2 ch/over	400 VAC	**199.00**
601290120040	10A	8 pin	plug-in industrial relay	2 ch/over	12 VDC	**150.00**
601290240040	10A	8 pin	plug-in industrial relay	2 ch/over	24 VDC	**150.00**
601290360040	10A	8 pin	plug-in industrial relay	2 ch/over	36 VDC	**166.00**
601290480040	10A	8 pin	plug-in industrial relay	2 ch/over	48 VDC	**166.00**
601290600040	10A	8 pin	plug-in industrial relay	2 ch/over	60 VDC	**166.00**
601291100040	10A	8 pin	plug-in industrial relay	2 ch/over	110 VDC	**161.00**
601292200040	10A	8 pin	plug-in industrial relay	2 ch/over	220 VDC	**235.00**
601380120040	10A	11 pin	plug-in industrial relay	3 ch/over	12 VAC	**155.00**
601380240040	10A	11 pin	plug-in industrial relay	3 ch/over	24 VAC	**155.00**
601380360040	10A	11 pin	plug-in industrial relay	3 ch/over	36 VAC	**170.00**
601380480040	10A	11 pin	plug-in industrial relay	3 ch/over	48 VAC	**170.00**
601380600040	10A	11 pin	plug-in industrial relay	3 ch/over	60 VAC	**170.00**
601381100040	10A	11 pin	plug-in industrial relay	3 ch/over	110 VAC	**170.00**
601382400040	10A	11 pin	plug-in industrial relay	3 ch/over	240 VAC	**166.00**
601384000040	10A	11 pin	plug-in industrial relay	3 ch/over	400 VAC	**204.00**
601390120040	10A	11 pin	plug-in industrial relay	3 ch/over	12 VDC	**155.00**
601390240040	10A	11 pin	plug-in industrial relay	3 ch/over	24 VDC	**155.00**
601390360040	10A	11 pin	plug-in industrial relay	3 ch/over	36 VDC	**170.00**
601390480040	10A	11 pin	plug-in industrial relay	3 ch/over	48 VDC	**170.00**
601390600040	10A	11 pin	plug-in industrial relay	3 ch/over	60 VDC	**170.00**
601391100040	10A	11 pin	plug-in industrial relay	3 ch/over	110 VDC	**166.00**
601392200040	10A	11 pin	plug-in industrial relay	3 ch/over	220 VDC	**240.00**

Other configurations: *replace **last two digits** with following: (e.g. 60128012054)*

54	internal LED indicator for	AC relays	**42.00**
74	internal LED indicator for	DC relays	**42.00**
46392/PS	sheet of (48) marking tags *(mounts directly onto relay)*	6012/3	**72.00**

Sockets and accessories for 60 series relays			for relay	
9012	panel mnt *(flange)* solder terminal socket		for relay 6012	**27.00**
9013	panel mnt *(flange)* solder terminal socket for relay		for relay 6013	**28.00**
9014	PCB mount (8 pin) socket for relay *(diameter 20.5 mm)*		for relay 6012	**27.00**
90141	PCB mount (8 pin) socket for relay *(diameter 17.5 mm)*		for relay 6012	**27.00**
9015	PCB mount (11 pin) socket for relay *(diameter 22.0 mm)*		for relay 6013	**28.00**
90151	PCB mount (11 pin) socket for relay *(diameter 19.0 mm)*		for relay 6013	**28.00**
9020SMA	surface/DIN mount socket *(screw terminal)* standard		for relay 6012	**70.00**
9021SMA	surface/DIN mount socket *(screw terminal)* standard		for relay 6013	**78.00**
9022SMA	surface/DIN mount socket *(screw terminal)* oval		for relay 6012	**48.00**
9023SMA	surface/DIN mount socket *(screw terminal)* oval		for relay 6013	**53.00**
9026SMA	surface/DIN mount socket *(screw terminal)* square		for relay 6012	**72.00**
9027SMA	surface/DIN mount socket *(screw terminal)* square		for relay 6013	**80.00**
9048SMA	surface/DIN mount socket *(screw terminal)* rectangular		for relay 6012	**86.00**
9049SMA	surface/DIN mount socket *(screw terminal)* rectangular		for relay 6013	**98.00**
9002SMA*	surface/DIN mount socket *(screw terminal)* for modules		for relay 6012	**76.00**
9003SMA*	surface/DIN mount socket *(screw terminal)* for modules		for relay 6013	**85.00**
09006	6 way jumper link *(bridge bar)* for sockets		9002/3	**52.00**
090002	spare marking tag for sockets	*(10pcs)*	9002/3	**19.40**

* *Accepts plug-in LED, diode, timing modules (plugs directly into socket) see page **J-8***

ES8CNER	Ersce	black surface/DIN mount socket *(screw terminal)*	6012	**63.00**
ES11CNER	Ersce	black surface/DIN mount socket *(screw terminal)*	6013	**68.00**


6531...

65 series High power relays *(43.3 x 32.2 x 36.6 mm)*

- AC and DC coil voltages
- Flange mount with faston 250 *(6.3 x 0.5 mm)* termination
- ATEX compliant options *(available on request)*
- Reinforced insulation between coil and contacts to EN60335-1

type	current	description	contact configuration	coil voltage	price
20A 1 NO + 1 NC					
653180120000	20A	plug-in industrial power relay	1 NO + 1 NC	12 VAC	**142.00**
653180240000	20A	plug-in industrial power relay	1 NO + 1 NC	24 VAC	**142.00**
653180480000	20A	plug-in industrial power relay	1 NO + 1 NC	48 VAC	**157.00**
653181100000	20A	plug-in industrial power relay	1 NO + 1 NC	110 VAC	**157.00**
653182400000	20A	plug-in industrial power relay	1 NO + 1 NC	240 VAC	**152.00**
653184000000	20A	plug-in industrial power relay	1 NO + 1 NC	400 VAC	**190.00**
653190120000	20A	plug-in industrial power relay	1 NO + 1 NC	12 VDC	**142.00**
653190240000	20A	plug-in industrial power relay	1 NO + 1 NC	24 VDC	**142.00**
653190480000	20A	plug-in industrial power relay	1 NO + 1 NC	48 VDC	**157.00**
653191100000	20A	plug-in industrial power relay	1 NO + 1 NC	110 VDC	**152.00**
653192200000	20A	plug-in industrial power relay	1 NO + 1 NC	220 VDC	**226.00**
30A 1 NO					
• ≥ 3 mm contact gap					
653180120300	30A	plug-in industrial power relay	1 NO	12 VAC	**137.00**
653180240300	30A	plug-in industrial power relay	1 NO	24 VAC	**137.00**
653180480300	30A	plug-in industrial power relay	1 NO	48 VAC	**152.00**
653181100300	30A	plug-in industrial power relay	1 NO	110 VAC	**152.00**
653182400300	30A	plug-in industrial power relay	1 NO	240 VAC	**147.00**
653184000300	30A	plug-in industrial power relay	1 NO	400 VAC	**185.00**
653190120300	30A	plug-in industrial power relay	1 NO	12 VDC	**117.00**
653190240300	30A	plug-in industrial power relay	1 NO	24 VDC	**124.00**
653190480300	30A	plug-in industrial power relay	1 NO	48 VDC	**152.00**
653191100300	30A	plug-in industrial power relay	1 NO	110 VDC	**147.00**
653192200300	30A	plug-in industrial power relay	1 NO	220 VDC	**221.00**


6531...

Other configurations:

PCB mount terminals: replace **3rd digit 65 (3)** with **(6)** *(e.g. 656180120000)*

Accessories for 65 series relays

06507	DIN rail mounting frame	*(terminals facing forward)* **22.00**
06508	DIN rail mounting frame	*(terminals facing down)* **22.00**


6682...

66 series High power 2 pole relays *(31 x 51.5 x 33.5 mm)*

- AC and DC coil voltages
- Faston 250 *(6.3 x 0.8 mm)* termination
- 8 mm, 6kV (1.2/50 µs) isolation, coil-contacts
- 2 pole changeover contacts 30A NO - 10A NC
- Reinforced insulation between coil and contacts to EN60335-1

30A 2 changeover

668280120000	30A	plug-in industrial power relay	2 changeover	12 VAC	**186.00**
668280240000	30A	plug-in industrial power relay	2 changeover	24 VAC	**186.00**
668281100000	30A	plug-in industrial power relay	2 changeover	110 VAC	**186.00**
668282400000	30A	plug-in industrial power relay	2 changeover	240 VAC	**199.00**
668290120000	30A	plug-in industrial power relay	2 changeover	12 VDC	**186.00**
668290240000	30A	plug-in industrial power relay	2 changeover	24 VDC	**186.00**
668291100000	30A	plug-in industrial power relay	2 changeover	110 VDC	**199.00**


6622...PCB

PCB termination: replace **3rd digit 66 (8)** with **(2)** *(e.g. 662280120000)*

Accessories for 66 series relays

06607	DIN rail mounting frame	*(terminals facing forward)* **23.00**

Above prices do not include VAT. E&OE


9902...


9902...59


9902...99


9902...09

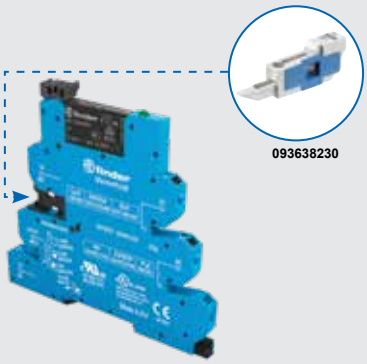

8630...


86000...

Plug-in modules - LED / Diode / Timer

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 *(standard polarity A1/+)*	6 - 220 VDC	**27.00**
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	**40.00**
9902006059	green	plug-in LED module	28 - 60 VAC/DC	**41.00**
9902023059	green	plug-in LED module	110 - 240 VAC/DC	**40.00**
LED + diode module				
Recovery diode + LED module are used for DC, reverse voltage peaks are short circuited by the recovery diode *(positive to terminal A1),* 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	**44.00**
9902906099	green	plug-in LED + diode module	28 - 60 VDC	**46.00**
9902922099	green	plug-in LED + diode module	110 - 220 VDC	**44.00**
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	**53.00**
9902006098	green	plug-in LED + Varistor module	28 - 60 VAC/DC	**54.00**
9902023098	green	plug-in LED + Varistor module	110 - 240 VAC/DC	**53.00**
RC circuit module				
RC circuit modules are used for AC and DC applications. The reverse voltage peaks of the coil are limited by th 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	**56.00**
9902006009	green	plug-in RC module fo AC and DC lines	28 - 60 VAC/DC	**57.00**
9902023009	green	plug-in RC module fo AC and DC lines	110 - 240 VAC/DC	**56.00**
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	**44.00**
Timer modules				
• Multi-function, multi-voltage timer module • Time range: 1s, 10s, 100s, 10m, 100m, 10hr, 100hr *(adjustable)* • 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	**345.00**
863082400000	green	multi-range, bi-functional timer module	240 VAC	**388.00**
860002400000	green	multi-range, multi-function timer module	12 - 240 VAC/DC	**345.00**







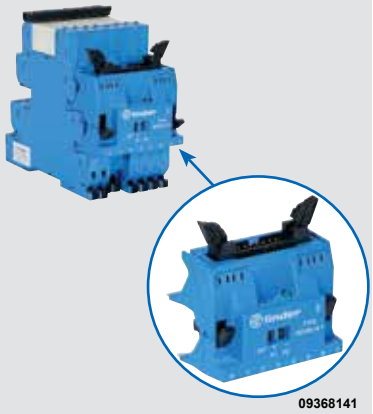
39 Series Master***INTERFACE*** - slimline relay interface modules

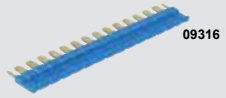
- Space saving 6.2 mm wide
- Connections for 16 way jumper links *(bridging bars)*
- Integral LED coil indication and protection circuit
- Secure relay retention with easy ejection clip
- DIN 35 rail mounting (EN60715)

type	current voltage	operating voltage	switching	contact	type terminal	description	price
Master*PLUS* relay interface modules *(for general use in any type of system and application)*							
• Accepts output fuse module **(09363)** for quick/easy space efficient protection of output circuits							
Master***PLUS* - EMR** **electromechanical relays**						*(H) 87 x (W) 6.2 x (D) 91 mm*	
393100120060	6A	12 VAC/DC	up to 400V	1 ch/over	screw	relay interface module	**195.00**
393100240060	6A	24 VAC/DC	up to 400V	1 ch/over	screw	relay interface module	**195.00**
396100240060	6A	24 VAC/DC	up to 400V	1 ch/over	push-in	relay interface module	**195.00**
393182300060	6A	230 VAC	up to 400V	1 ch/over	screw	relay interface module	**257.00**
Master***PLUS* - SSR** **solid state relays**							
393070129024	6A	12 VDC	1.5 - 33 VDC	1 NO	screw	relay interface module	**388.00**
393070249024	6A	24 VDC	1.5 - 33 VDC	1 NO	screw	relay interface module	**401.00**
396070249024	6A	24 VDC	1. 5 - 33 VDC	1 NO	push-in	relay interface module	**401.00**
396070248240	2A	24 VDC	230 VAC	1 NO	push-in	relay interface module	**422.00**
Plug-in output fuse module - for Master***PLUS*** interface - accepts std 20 x 5 mm fuses up to 6A, 250V *- Quick easy plug-in connection to socket (fuse condition visibility with inspection window)*							
09363	fuse	–	plug-in			output fuse module for Master***PLUS*** interface	**60.00**
093630024	fuse	24 VAC/DC	plug-in			output fuse module with LED fuse status indicator	**78.00**
093638230	fuse	230 VAC	plug-in			output fuse module with LED fuse status indicator	**78.00**
Master*INPUT* relay interface module							
• Interface between auxiliary contacts, sensors, limit switches and PLC's/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							
Master***INPUT* - EMR** **electromechanical relays**							
394100245060	6A	24 VAC/DC	up to 400V	1 ch/over	screw	relay interface module	**237.00**
397100245060	6A	24 VAC/DC	up to 400V	1 ch/over	push-in	relay interface module	**237.00**
394182305060	6A	230 VAC	up to 400V	1 ch/over	screw	relay interface module	**299.00**
Master***INPUT* - SSR** **solid state relays**							
394000249024	6A	24 VAC/DC	1.5 - 33 VDC	1 NO	screw	relay interface module	**425.00**
397070249024	6A	24 VDC	1.5 - 33 VDC	1 NO	push-in	relay interface module	**401.00**
394000248240	2A	24 VAC/DC	230 VAC	1 NO	screw	relay interface module	**442.00**
Master*OUTPUT* relay interface module							
• Interface between PLC's / controllers and output devices, valves, motors etc… • Quick and easy distribution of supply voltage with jumper link							
Master***OUTPUT* - EMR** **electromechanical relays**							
392100240060	6A	24 VAC/DC	up to 400V	1 ch/over	screw	relay interface module	**195.00**
395100240060	6A	24 VAC/DC	up to 400V	1 ch/over	push-in	relay interface module	**195.00**
392182300060	6A	230 VAC	up to 400V	1 ch/over	screw	relay interface module	**257.00**
Master***OUTPUT* - SSR** **solid state relays**							
392070129024	6A	12 VDC	1.5 - 33 VDC	1 NO	screw	relay interface module	**388.00**
392070249024	6A	24 VDC	1.5 - 33 VDC	1 NO	screw	relay interface module	**401.00**
395070249024	6A	24 VDC	1.5 - 33 VDC	1 NO	push-in	relay interface module	**401.00**
392082309024	2A	230 VAC	1.5 - 33 VDC	1 NO	screw	relay interface module	**425.00**

Accessories for 39 series interface modules ***see overleaf….***

Above prices do not include VAT. E&OE


09368141


09316


3801...


4304...


4004...

***(Continued from previous page)...* 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	jumper link *(bridge bar)* for interfaces	**49.00**
093160	16 way	black	plug-in	jumper link *(bridge bar)* for interfaces	**49.00**
093161	16 way	red	plug-in	jumper link *(bridge bar)* for interfaces	**49.00**
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	separator			plastic separator for interface modules *(1.8 or 6.2 mm separation)*	**16.50**
Terminal doubler - *(for Push-in terminal sockets only)*				*Max. wire size 2 x 1.5 mm²*	
09363	doubler	6 A - 300V		terminal doubler *(for two cables)* push-in terminal sockets	**60.00**
Master**ADAPTOR** *- 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		Master***ADAPTOR*** easy connection of up to 8 interface modules	**377.00**
46392/PS	marking	6 x 12 mm		sheet of 48 marking tags *(mounts onto retain clip)*	**72.00**

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	up to 400V	1 ch/over	screw	relay interface module	**254.00**
380100240060*	16A	24 VAC/DC	up to 400V	1 ch/over	screw	relay interface module	**325.00**
380102400060*	16A	240 VAC/DC	up to 400V	1 ch/over	screw	relay interface module	**348.00**
* *Special wiring for loads greater than 10A*							
385170240050	8A	12 VDC	up to 400V	2 ch/over	screw	relay interface module	**187.00**
385270120050	8A	12 VDC	up to 400V	2 ch/over	screw	relay interface module	**258.00**
385270240050	8A	24 VDC	up to 400V	2 ch/over	screw	relay interface module	**258.00**
385200240060	8A	24 VAC/DC	up to 400V	2 ch/over	screw	relay interface module	**332.00**
385202400060	8A	240 VAC/DC	up to 400V	2 ch/over	screw	relay interface module	**355.00**
Solid state relays							
383170249024	5A	24 VDC	1.5 - 24 VDC	1 NO	screw	relay interface module	**493.00**
383170248240	3A	24 VDC	12 - 275 VAC	1 NO	screw	relay interface module	**480.00**
09308	8 way	blue	plug-in			jumper link *(bridge bar)* for interfaces	**49.00**

4/8 way relay interface modules

- Incorporates LED relay status indication and diode protected coils
- Negative common *(standard)* / positive (+) common *(on request)*

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	**349.00**
Plug-in version			*for easy relay replacement (relays **4341** to be ordered separately)*				
43049000P	10A	12/24 VDC	up to 400V	ch/over	4 way	plug-in version	**221.00**
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	**883.00**
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	**423.00**
40048230	10A	230 VAC	up to 400V	ch/over	4 way	fixed relay interface	**678.00**
Plug-in version			*for easy relay replacement (relays 4051 to be ordered separately)*				
40049000P	10A	12/24 VDC	up to 400V		4 way	plug-in version	**327.00**
40048000P	10A	230 VAC	up to 400V		4 way	plug-in version	**327.00**


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

type	rated power AC-1 (A)	rated power AC-3 kW (230V)	description	modules width in 17.5 mm	contact configuration	coil voltage AC/DC	price
2 pole modular contactor	25A	*(H) 89 x (W) 17.5 (D) 61 mm*					
• Compact *(one module wide)* 17.5 mm							
223200124340	25A	1.0 kW *	modular contactor	1	2 NO	12V	**467.00**
223200244340	25A	1.0 kW *	modular contactor	1	2 NO	24V	**467.00**
223200484340	25A	1.0 kW *	modular contactor	1	2 NO	48V	**467.00**
223202304340	25A	1.0 kW *	modular contactor	1	2 NO	230V	**467.00**
223200124440	25A	1.0 kW *	modular contactor	1	2 NC	12V	**467.00**
223200244440	25A	1.0 kW *	modular contactor	1	2 NC	24V	**467.00**
223202304440	25A	1.0 kW *	modular contactor	1	2 NC	230V	**467.00**
223200124540	25A	1.0 kW *	modular contactor	1	1NO + 1NC	12V	**467.00**
223200244540	25A	1.0 kW *	modular contactor	1	1NO + 1NC	24V	**467.00**
223200484540	25A	1.0 kW *	modular contactor	1	1NO + 1NC	48V	**467.00**
223202304540	25A	1.0 kW *	modular contactor	1	1NO + 1NC	230V	**467.00**
* *Single phase motor rating 230 VAC*							
4 pole modular contactor	25A	*(H) 89 x (W) 35 (D) 61 mm*					
type	rated power AC-1 (A)	rated power AC-3 kW (400V)	description	modules width in 17.5 mm	contact configuration	coil voltage AC/DC	
• Compact (*two modules wide)* 35 mm							
223400124340	25A	4.0 kW	modular contactor	2	4 NO	12V	**640.00**
223400244340	25A	4.0 kW	modular contactor	2	4 NO	24V	**640.00**
223402304340	25A	4.0 kW	modular contactor	2	4 NO	230V	**640.00**
223400124740	25A	4.0 kW	modular contactor	2	3NO + 1NC	12V	**640.00**
223400244740	25A	4.0 kW	modular contactor	2	3NO + 1NC	24V	**640.00**
223402304740	25A	4.0 kW	modular contactor	2	3NO + 1NC	230V	**640.00**
223400124640	25A	4.0 kW	modular contactor	2	2NO + 2NC	12V	**640.00**
223400244640	25A	4.0 kW	modular contactor	2	2NO + 2NC	24V	**640.00**
223402304640	25A	4.0 kW	modular contactor	2	2NO + 2NC	230V	**640.00**
Accessories for above contactors							
Clip-on auxiliaries for above contactors			*(H) 84 x (W) 8.8 (D) 61 mm*				
02235	6A		clip-on auxiliary contact block	0.5	1NO + 1NC		**318.00**
02233	6A		clip-on auxiliary contact block	0.5	2 NO		**318.00**
02218	8-way		jumper link for 2 pole contactors	1	17.5 mm	blue	**67.00**
02226	6-way		jumper link for 4 pole contactors	2	35 mm	blue	**67.00**
02001	adaptor		chassis mounting adaptor	1	17.5 mm		**4.40**
01101	adaptor		chassis mounting adaptor	2	35 mm		**4.90**
02209	separator		rail mounting contactor separator	0.5	9 mm		**13.60**
46392\PS	sheet of (48) marking tags *(mounts directly onto contactor)*					2232/4	**72.00**
19 series modular DIN rail mount relay			*(H) 84 x (W) 11.2 (D) 57 mm*				
• 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							
192100240000	10A	slimline	modular relay		1 ch/over	24V	**523.00**

Above prices do not include VAT. E&OE

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

Modular step relays 10/16A

26 series step relays *(pulse "ON", pulse "OFF")* *(H) 46.6 x (W) 45 (D) 22 mm*

- Screw terminal connections
- Maximum pulse duration: 1 hour
- Electrically separated coils and contact circuits



2603...

26 series step relays *(pulse "ON", pulse "OFF")* *(H) 46.6 x (W) 45 (D) 22 mm*

- AC coil
- Base/chassis mounting
- Screw terminal connections
- Maximum pulse duration: 1 hour
- Electrically separated coils and contact circuits

type	switch current	No. steps	description	contact configuration	coil voltage	price
260380120000	10A	2 step	base mounting step relay	1NO+1NC	12 VAC	**224.00**
260380240000	10A	2 step	base mounting step relay	1NO+1NC	24 VAC	**224.00**
260381100000	10A	2 step	base mounting step relay	1NO+1NC	110 VAC	**224.00**
260382300000	10A	2 step	base mounting step relay	1NO+1NC	230 VAC	**224.00**
0269012	module for operating above 26 series with DC				12 VDC	**168.00**
0269024	module for operating above 26 series with DC				24 VDC	**168.00**



2023...

20 series modular step relays *(H) 84 x (W) 17.5 x (D) 57 mm*

- AC and DC coils
- Modular DIN rail mounting
- Manual override/test button
- Maximum pulse duration: 1 hour
- Compact one module *(17.5 mm)* wide
- Mechanical flag indicators of contact positions

202380120000	16A	2 step	modular pulse step relay	2 contact	12 VAC	**364.00**
202380240000	16A	2 step	modular pulse step relay	2 contact	24 VAC	**364.00**
202382300000	16A	2 step	modular pulse step relay	2 contact	230 VAC	**364.00**
202390120000	16A	2 step	modular pulse step relay	2 contact	12 VDC	**364.00**
202390240000	16A	2 step	modular pulse step relay	2 contact	24 VDC	**364.00**
202680120000	16A	3 step	modular pulse step relay	2 contact	12 VAC	**364.00**
202680240000	16A	3 step	modular pulse step relay	2 contact	24 VAC	**364.00**
202682300000	16A	3 step	modular pulse step relay	2 contact	230 VAC	**364.00**
202690120000	16A	3 step	modular pulse step relay	2 contact	12 VDC	**364.00**
202690240000	16A	3 step	modular pulse step relay	2 contact	24 VDC	**364.00**
202480120000	16A	4 step	modular pulse step relay	2 contact	12 VAC	**364.00**
202480240000	16A	4 step	modular pulse step relay	2 contact	24 VAC	**364.00**
202482300000	16A	4 step	modular pulse step relay	2 contact	230 VAC	**364.00**
202490120000	16A	4 step	modular pulse step relay	2 contact	12 VDC	**364.00**
202490240000	16A	4 step	modular pulse step relay	2 contact	24 VDC	**364.00**
202880120000	16A	4 step	modular pulse step relay	2 contact	12 VAC	**364.00**
202880240000	16A	4 step	modular pulse step relay	2 contact	24 VAC	**364.00**
202882300000	16A	4 step	modular pulse step relay	2 contact	230 VAC	**364.00**
202890120000	16A	4 step	modular pulse step relay	2 contact	12 VDC	**364.00**
202890240000	16A	4 step	modular pulse step relay	2 contact	24 VDC	**364.00**

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

Okpac® SO series power relays

- 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 SSR's with suitable heat sink.


SO942460

type	thyristor rating	switching voltage	peak voltage	control voltage	I^2t	description	price
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							
SO941460	12A	12 - 280 VAC	600V	3 - 32 VDC	128A²s	solid state relay	**316.00**
SO942460	25A	12 - 280 VAC	600V	3 - 32 VDC	600A²s	solid state relay	**383.00**
SO943460	40A	12 - 280 VAC	600V	3 - 32 VDC	1250A²s	solid state relay	**432.00**
SO945460	50A	12 - 280 VAC	600V	3 - 32 VDC	2800A²s	solid state relay	**446.00**
SO965460	60A	24 - 600 VAC	1200V	3.5 -32 VDC	2800A²s	solid state relay	**516.00**
SO967460	90A	24 - 600 VAC	1200V	3.5 - 32 VDC	7200A²s	solid state relay	**687.00**
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	600A²s	solid state relay	**527.00**
SO845070	50A	12 - 275 VAC	600V	3 - 32 VDC	2800A²s	solid state relay	**632.00**
SO865070	50A	24 - 510 VAC	1200V	3.5 - 32 VDC	2800A²s	solid state relay	**754.00**
SO867070	75A	24 - 510 VAC	1200V	3.5 - 32 VDC	7200A²s	solid state relay	**1 080.00**
SO868070	95A	24 - 510 VAC	1200V	3.5 - 32 VDC	16200A²s	solid state relay	**1 485.00**
SO869070	125A	24 - 510 VAC	1200V	3.5 - 32 VDC	22000A²s	solid state relay	**1 963.00**
AC control							
SO842974	25A	12 - 275 VAC	600V	20 - 265 VAC/DC	600A²s	solid state relay	**527.00**
SO865970	50A	24 - 510 VAC	1200V	20 - 265 VAC/DC	2800A²s	solid state relay	**829.00**
SO867970	75A	24 - 510 VAC	1200V	20 - 265 VAC/DC	7200A²s	solid state relay	**1 285.00**
SO868970	95A	24 - 510 VAC	1200V	20 - 265 VAC/DC	16200A²s	solid state relay	**1 556.00**
SO869970	125A	24 - 510 VAC	1200V	20 - 265 VAC/DC	22000A²s	solid state relay	**2 021.00**


SO867070

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	2800A²s	solid state relay	**1 083.00**
SO767090	75A	24 - 510 VAC	1200V	3.5 - 32 VDC	7200A²s	solid state relay	**1 519.00**
SO768090	95A	24 - 510 VAC	1200V	3.5 - 32 VDC	16200A²s	solid state relay	**1 683.00**


SO765090

SOB series	*two phase SSR's*						
• 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	2500A²s	solid state relay	**2 017.00**
1Y042715				plug-in input screw terminal for above dual phase relay			**85.00**


WF151200

type	thermal rating	description	dimensions (mm) (H)	(W)	(D)	
Accessories	*for above SO series relays*					
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	**310.00**
WF108110	1.1K/W	DIN rail mountable heatsink for SO series relays	98	90	81	**443.00**
WF115100	0.9K/W	DIN rail mountable heatsink for SO series relays	90	110	100	**1 385.00**
5TH23000	pads	thermal transfer pads for mounting SO Solid State Relays onto heat sinks				**10.70**
1LD12020	adaptor	adaptor for direct mounting of SO relays on DIN rail				**92.00**

Above prices do not include VAT. E&OE



SU963460



SU865070



ESUC0450



WF311100

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

Celpac® SU series power relays *Pluggable control terminals*

- 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 SSR's with suitable heat sink.

type	thyristor rating	switching voltage	peak voltage	control voltage	I²t	description	price
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	600A²s	solid state relay	**394.00**
SU963460	35A	24 - 600 VAC	1200V	3.5 - 32 VDC	882A²s	solid state relay	**498.00**
SU965460	50A	24 - 600 VAC	1200V	3.5 - 32 VDC	1680A²s	solid state relay	**532.00**
SU967460	75A	24 - 600 VAC	1200V	3.5 - 32 VDC	7200A²s	solid state relay	**695.00**
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	600A²s	solid state relay	**543.00**
SU865070	50A	24 - 510 VAC	1200V	3.5 - 32 VDC	1680A²s	solid state relay	**776.00**
SU867070	75A	24 - 510 VAC	1200V	3.5 - 32 VDC	7200A²s	solid state relay	**923.00**
AC control							
SU842970	25A	12 - 275 VAC	600V	160 - 240 VAC	600A²s	solid state relay	**537.00**
SU865970	50A	24 - 510 VAC	1200V	160 - 240 VAC	1680A²s	solid state relay	**837.00**

Accessories for SU series SSR's

type	thermal rating	description	dimensions (mm) (H)	(W)	(D)	
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.						
• Detection of: - partial load break - open mains - open load - short-circuited SSR						
ESUC0450	2 - 40A	8 - 30 VDC	current monitoring module			**1 772.00**
Heatsinks	*SSR current ratings are based on sufficient cooling by the use of heatsinks*					
WF311100	3.0K/W	DIN rail mountable heatsink for SU series relays	80	22.5	73	**425.00**
WF151200	2.2K/W	DIN rail mountable heatsink for SU series relays	80	45	73	**310.00**
WF112100	1K/W	DIN rail mountable heatsink for SU series relays	120	50	118	**470.00**
5TH24000	thermal transfer pads	for mounting SU relays onto heatsinks				**12.70**

Complete "ready for use" SSR + heat sink combination

SUL9 range	*for resistive loads (AC-51) - heating*				*(H) 90 x (W) 22.5 x (D) 112 mm*		
SUL942460	25A	12 - 280 VAC	600V	3 - 32 VDC	600A²s	SSR + heat sink	**919.00**
SUL967460	75A	24 - 600 VAC	1200V	3.5 - 32 VDC	7200A²s	SSR + heat sink	**1 279.00**
SUL/SUM *8 range - for most load types - lamps and infrared*					*(H) 90 x (W) 22.5 x (D) 112 mm*		
DC control							
SUL842070	25A	12 - 275 VAC	600V	3 - 32 VDC	600A²s	SSR + heat sink	**1 206.00**
SUL867070	75A	24 - 510 VAC	1200V	3.5 - 32 VDC	7200A²s	SSR + heat sink	**1 219.00**
SUM8	*(H) 90 x (W) 45 x (D) 112 mm*						
SUM865070	50A	24 - 510 VAC	1200V	3.5 - 32 VDC	1680A²s	SSR + heat sink	**1 341.00**
AC control	*(H) 90 x (W) 22.5 x (D) 112 mm*						
SUL842970	25A	12 - 275 VAC	600V	160 - 240 VAC	600A²s	SSR + heat sink	**751.00**
SUL865970	50A	24 - 510 VAC	1200V	160 - 240 VAC	1680A²s	SSR + heat sink	**988.00**

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

SO4 series - Proportional controllers

- Analog switching SSR for resistive load power control *(phase angle principle)*
- Overvoltage protection by varistor
- 4-20mA / 0-10V / Potentiometer control
- IP20 protection cover *(removeable)*
- Control status LED

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*	
4-20mA control current input						
SO465420	50A	200 - 480 VAC	–	4-20mA	proportional output SSR	**1 759.00**
SO467420	75A	200 - 480 VAC	–	4-20mA	proportional output SSR	**2 018.00**
SO468420	95A	200 - 480 VAC	–	4-20mA	proportional output SSR	**2 260.00**
SO469420	125A	200 - 480 VAC	–	4-20mA	proportional output SSR	**2 734.00**
0-10V Analog input						
• Control supply voltage 8 - 30 VDC						
SO465020	50A	200 - 480 VAC	–	0-10V	proportional output SSR	**1 934.00**
SO468020	95A	200 - 480 VAC	–	0-10V	proportional output SSR	**2 468.00**
SO469020	125A	200 - 480 VAC	–	0-10V	proportional output SSR	**2 962.00**


SOM040200

Potentiometer analog input

- Control supply voltage 8 - 30 VDC

SO465320	50A	200 - 480 VAC	–	potentiometer	proportional output SSR	**1 934.00**

DC Solid State Relays — DC-in, DC-out

MOSFET technology

SOM series - Latest MOSFET technology generation — *(H) 58.5 x (W) 45 x (D) 30 mm*

Designed to switch DC loads e.g solenoid valves, brakes, indicators

- Ultra low on-state resistance
- Low output leakage current and control current
- Built-in overvoltage protection



SCI0251700

SOM020100	20A	5 - 60 VDC	100V	3.5 - 32 VDC	DC output Solid State Relay	**887.00**
SOM040200	40A	5 - 110 VDC	200V	3.5 - 32 VDC	DC output Solid State Relay	**1 170.00**

IGBT technology - for high DC voltage applications

SCI series - Integrated reverse diode — *(H) 58.2 x (W) 45 x (D) 27 mm*

SCI0251700	25A	0 - 1700 VDC	1700V	4.5 - 32 VDC	DC output Solid State Relay	**17 540.00**
SCI0501200	50A	0 - 1200 VDC	1200V	4.5 - 32 VDC	DC output Solid State Relay	**8 861.00**
SCI0100600	100A	0 - 600 VDC	600V	4.5 - 32 VDC	DC output Solid State Relay	**8 861.00**

SDI series - Integrated protection — *(H) 157 x (W) 68 x (D) 83 mm*

- Overvoltage protection
- Load short circuit protection
- Overload temperature protection

SDI0501700	50A	24 - 940 VDC	1700V	24 - 48 VDC	DC output Solid State Relay	**29 420.00**
SDI0501710	50A	24 - 940 VDC	1700V	72- 110 VDC	DC output Solid State Relay	**29 420.00**

Accessories — for above Solid State Relays


WF151200

type	thermal rating	description	dimensions (mm) (H)	(W)	(D)	
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	**310.00**
WF108110	1.1K/W	rail mountable heatsink for SO,SC series relays	98	90	81	**443.00**
WF115100	0.9K/W	rail mountable heatsink for SO,SC series relays	90	110	100	**1 385.00**
5TH23000	pads	thermal transfer pads for SO,SC Solid State Relays				**10.70**
1LD12020	adaptor	adaptor for mounting heat sinks on DIN rail				**92.00**

Above prices do not include VAT. E&OE



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	I2t	price
Sightpac series - 3 phase Solid State Relays						*(H) 100 x (W) 45 x (D) 48 mm*	
• New compact - 45 mm wide version							
SMB series two leg 3 phase Solid State Relay							
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	2800A²s	**2 201.00**
SMB8670910	2 x 75A	3 x 35A	150 - 520 VAC	1600V	4 - 30 VDC	7200A²s	**2 751.00**
SMT series 3 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	3x25A	3 x 20A	24 - 520 VAC	1200V	4 - 30 VDC	380A²s	**1 619.00**
SMT8628520	3x25A	3 x 20A	24 - 520 VAC	1200V	24 - 255 VAC/DC	380A²s	**1 629.00**
Cel3pac series - 3 phase Solid State Relays						*(H) 100 x (W) 76.5 x (D) 35.5 mm*	
SGB series two leg 3 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	2800A²s	**2 027.00**
SGB8890200	2 x 125A	3 x 85A	24 - 640 VAC	1600V	4 - 30 VDC	22000A²s	**3 306.00**
SGT series - 3 phase Solid State Relays - for controlling three-wire three-phase loads							
SGT9 - zero cross for resistive loads (AC-51)							
SGT9834300	3 x 35A	3 x 30A	24 - 660 VAC	1600V	4 - 30 VDC	1250A²s	**1 998.00**
SGT9854300	3 x 50A	3 x 42A	24 - 660 VAC	1600V	4 - 30 VDC	2800A²s	**2 148.00**
SGT9874300	3 x 75A	3 x 54A	24- 660 VAC	1600V	4 - 30 VDC	7200A²s	**2 544.00**
SGT8 series - Zero cross for most load types							
DC control							
SGT8850200	3 x 50A	3 x 42A	24 - 640 VAC	1600V	4 - 30 VDC	2800A²s	**2 443.00**
SGT8670500	3 x 75A	3 x 54A	24 - 520 VAC	1600V	4 - 30 VDC	7200A²s	**2 726.00**
SGT8690500	3 x 125A	3 x 64A	24 - 520 VAC	1600V	4 - 30 VDC	22000A²s	**4 608.00**
AC control							
SGT8658500	3 x 50A	3 x 42A	24 - 520 VAC	1600V	24 - 255 VAC/DC	2800A²s	**2 448.00**
SGT8678500	3 x 75A	3 x 54A	24 - 520 VAC	1600V	24 - 255 VAC/DC	7200A²s	**2 751.00**
SGT8698500	3 x 125A	3 x 64A	24 - 520 VAC	1600V	24 - 255 VAC/DC	22000A²s	**3 796.00**
SGTA series - 3 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		**5 657.00**
0-10V analog input							
SGTA4650	3 x 50A		300 - 510 VAC	0 - 10V	proportional output SSR		**6 282.00**

Accessories for above 3 phase series relays						
type	thermal rating	description	dimensions (mm) (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	**443.00**
WF115100	0.9K/W	rail mountable heatsink for SM, SG, series relays	90	110	100	**1 385.00**
1K199000	cover	transparent terminal cover for relays SGB and SGT				**66.00**

Modular timing devices

- 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


TMP

type	description	supply voltage	price
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		**626.00**
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	**783.00**


TMM1



TMM1NFC

new

As above with NFC programmability *(without front adjustment knobs)*

- 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	**799.00**


TMPL

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: 12 - 240 VAC/DC		
TMPL	multi-time, multi-voltage, modular unequal repeat electronic timer	12-240 VAC/DC	**1 186.00**
Delay on de-energisation timer			
	Electronic time relay. True off delay - relay energises on applying supply and remains energised *(for pre-settime 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	**1 494.00**


TMST

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	**732.00**
TMSTA440	multi-time, multi-voltage, modular star-delta elect. timer	380 - 440 VAC	**732.00**

Above prices do not include VAT. E&OE



PMV10A440



PMV55A240



PMV95NA575NFC



PMA30240



PMA50...

Voltage monitoring modular relays

- Modular DIN rail mounting *(aligns with standard MCBs)*
- True RMS measurements

type	description	monitored voltage	width in 17.5 mm	price
Phase failure / reversal relay *instantaneous trip*				
PMV10A440	phase failure / reversal relay	208 - 480 VAC	1	**603.00**
PMV20A575	phase failure / reversal relay	208 - 575 VAC	2	**740.00**
Voltage monitors	*single-phase or three-phase*			
• Voltage monitoring relays, self powered, for minimum and maximum voltage				
• Adjustments	- “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	**1 426.00**
Three phase monitoring *(without neutral)*				
• Self powered, for minimum and maximum voltage, phase loss and incorrect phase sequence				
PMV50A575	3-phase over/under voltage monitor	380 - 575 VAC	2	**1 426.00**
Three phase monitoring *(with or without neutral)*		self powered		
• For minimum and maximum voltage, phase loss, neutral loss and incorrect phase sequence				
PMV50NA440	minimum and maximum AC voltage	380 - 440 VAC	3	**2 007.00**
PMV50NA600	minimum and maximum AC voltage	480 - 600 VAC	3	**2 582.00**

new

As above with NFC programmability *(without front adjustment knobs)*

Multifunction voltage and frequency monitoring relay, self powered, for minimum and maximum voltage and frequency, phase loss, neutral loss, incorrect phase sequence and asymmetry.

- Programmable via smartphone or tablet with NFC technology and APP
- Simple, fast and intuitive programming *(password protected)*
- Very high accuracy and repeatability of settings

PMV95NA575NFC	multi-func. voltage and frequency relay (NFC)	380 - 575 VAC	2	**2 458.00**

Current monitoring relays	TRMS measurements			

Single and three-phase, AC/DC minimum or maximum current control with delayed trip. Auxiliary AC/DC power supply, automatic or manual reset.

- 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	- maximum or minimum current tripping threshold	5 - 100% Ie
	- maximum or minimum hysteresis threshold	1 - 50%
	- “trip” delay *(selectable)*	0.1 - 30sec
	- “inhibition” time - external input or power up	1 - 60sec
	- current scale selection:	5A or 16A
	- tripping memory *(latch)*	On or Off

PMA30240	minimum or maximum current monitor	24 - 240 VAC/DC	2	**1 479.00**

Pump protection relay	*single and three-phase systems (selectable)*			

Maximum AC current and minimum cosφ. Delayed trip. Phase loss and incorrect sequence. Instantaneous trip *(automatic or manual reset)*

- Pump protection relay against dry running, auxiliary AC power supply
- Maximum AC current and minimum cosφ *(delayed trip)*
- Direct connection up to 16A or by current transformer (CT) 5A secondary
- Phase loss and incorrect phase sequence *(instantaneous trip)*
- Voltage control range 80 - 660 VAC

• Adjustments	- “minimum” cosφ threshold *(underload/dry running)*	0.1 - 0.99
	- "maximum" *(over)* current threshold	10 - 100%
	- “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 *(against dry running)*	220 - 240 VAC	3	**2 447.00**
PMA50A415	pump protection relay *(against dry running)*	380 - 415 VAC	3	**2 447.00**


LVM20A240


LVM25240


LVM40...


SN1


LVMP...

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

type	description	supply voltage	width in 18 mm	price
LVM series - Level control relays	*three detecting probes (Min, Max and Com)*			
LVM20	*single voltage level control relay*			
	• 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	**634.00**
LVM20A415	liquid level control relay for "emptying" function	380 - 415 VAC	2	**634.00**
LVM25	*multi-voltage supply 24-240VAC/DC*			
	• 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	**899.00**
LVM30	*dual-voltage supply level control relay*			
	• 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	**1 057.00**
LVM30A415	dual-voltage liquid level control relay	110-127/380-415 VAC	3	**1 057.00**
LVM40	*five detecting probes (Min1, Max1, Min2, Max2 and Com)*			
	• Adjustments - sensitivity (2.5 - 200kΩ) *(sep adj for Max electrodes for foam detection)*			
	- probe signal delay 1-10s / - pump start delay 0-30min			
	• Relay outputs: 1 x changeover (SPDT) 1 x NO (SPDT)			
	• Selectable 5 different functions:			
	(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	**1 585.00**
LVM40A415	5 probe multi-function liquid level control relay	380 - 415 VAC	3	**1 585.00**
Level electrodes and holders for conductive liquids				
SN1	1-pole insulated electrode *(AISI 303 stainless steel)* for LVM relays			**117.00**
PS3S	electrode holder for 3 rod probes/electrodes			**133.00**
P1000S	electrodes for above PS3S holder	*(1 meter length)*		**63.00**
FS03-3P	electrode spacer disc	*(for extending probe length)*		**27.00**
PXL	electrode extension locknut	*(for extending probe length)*		**25.00**
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.			
	• Outputs: 2 x NO (SPST)			
	• Multi-voltage: 24/48 VDC / 24-240 VAC			
LVMP05	pump priority change relay	24 - 48 VDC / 24 - 240 VAC	1	**687.00**
LVMP10A240	pump priority change relay with 4 I\O	220 - 240 VAC	3	**1 057.00**

Above prices do not include VAT. E&OE

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.

Scan to watch video

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



LVFSP1W05

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.

type	activation angle	cable length	supplied with counterweight	max. pressure	description	price
LVFSP1W05	45°	5 met	yes	3 bar	float level switch for grey water	**350.00**
LVFSP1W10	45°	10 met	yes	3 bar	float level switch for grey water	**486.00**
LVFSP1W15	45°	15 met	yes	3 bar	float level switch for grey water	**914.00**



LVFSA1D10

For drinking water *(IP68)*

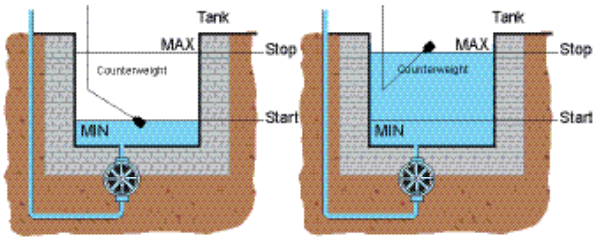
These float switches are suitable for drinking water and foodstuff applications such as aquaducts, fountains, aquariums, drinks, fish hatcheries, swimming pools, etc. Realised with a non-toxic polypropylene outer shell, a stainless steel untreated sphere, and an AD8 cable with health certification ACS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

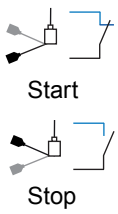
- PVC cable ACS + AD8 certified
- Provided with stainless steel counterweight (AISI 316)
- The MIN and MAX levels can be adjusted by varying the distance between counterweight and float.
- Changeover contact permits selection of filling and/or emptying function during regulator wiring.

LVFSA1D05	30°	5 met	yes (AISI 316)	2 bar	float level switch for drinking water	**1 029.00**
LVFSA1D10	30°	10 met	yes (AISI 316)	2 bar	float level switch for drinking water	**1 357.00**
LVFSA1D15	30°	15 met	yes (AISI 316)	2 bar	float level switch for drinking water	**1 778.00**

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.







LVFSN1B05

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	15°	5 met	yes *(internal)*	5 bar	float level switch for dirty water	**1 338.00**
LVFSN1B10	15°	10 met	yes *(internal)*	5 bar	float level switch for dirty water	**1 666.00**
LVFSN1B15	15°	15 met	yes *(internal)*	5 bar	float level switch for dirty water	**2 495.00**


CTA4100A

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	**1 468.00**
CTA4000A	multi-function timer-counter-tachometer	transistor	no	100 - 240 VAC	**1 468.00**
CTA4001A	multi-function timer-counter-tachometer	transistor	yes	100 - 240 VAC	**1 559.00**
CTA4100D	multi-function timer-counter-tachometer	relay	no	24 VDC	**1 468.00**
CTA4001D	multi-function timer-counter-tachometer	transistor	yes	24 VDC	**1 604.00**

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

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


L48TP...

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

- Multi-time range, multi-voltage, on-delay panel mount electronic timer

		time range	
L48TPS240	on-delay multi-range/voltage panel mount electronic timer	3/12/100/780sec	**490.00**
L48TPM240	on-delay multi-range/voltage panel mount electronic timer	3/12/100/780min	**490.00**

Two changeover relays *(one configurable for instantaneous switching)*

- Multi-range, single voltage, on-delay panel mount electronic timer

L48TPBM240	on-delay multi-time range panel mount electronic timer	1s/10s/1min/10min	**570.00**

Accessories for above L48 series panel mount timers

ES8CNER	8 pin surface/DIN rail mounting relay socket for L48 timers	*(screw terminals)*	**63.00**
P3G08	8 pin socket for panel mounting L48 timers *(rear terminals)*	*(screw terminals)*	**31.00**
D-48Y	flush-mounting bracket for panel mounting above L48 timers		**21.00**

CDC - Electromechanical timing devices *(motorised)*


S48/704/B6/...

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	**2 591.00**
S45/604/B6/11A	1x instantaneous + 1x delay multi-range motorised timer	110 VAC	**2 591.00**
S45/604/B6/22A	1x instantaneous + 1x delay multi-range motorised timer	220 VAC	**2 591.00**

Flush/panel mount motorised timer

S48/704/B6/02A	1x inst + 1x delay multi-range motorised timer	p/mount 48 mm²	24 VAC	**2 441.00**
S48/704/B6/11A	1x inst + 1x delay multi-range motorised timer	p/mount 48 mm²	110 VAC	**2 441.00**
S48/704/B6/22A	1x inst + 1x delay multi-range motorised timer	p/mount 48 mm²	220 VAC	**2 441.00**
1400/704/B6/22A	1x inst + 1x delay multi-range motorised timer	p/mount 72 mm²	220 VAC	**3 324.00**


1400/704/B6/11A

Accessories

L48P8	rear connected 8 pin screw terminal socket	for S48/1400 timers	**117.00**

Finder - Asymmetrical timer *(up to 300hrs)* *(use **L48P8** for termination)*

889202400000	2 pole	panel mount asymmetrical flasher	240 VAC	**2 036.00**

EM - Mechanical clockwork timers - panel mount *16 A 250 VAC (1NO + 1NC)*

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


XTI15163

type	Amps	contact	time range	description	
XTI2049	16A	1NO + 1NC	60 min	MI2 mechanical clockwork timer	**771.00**
XTI2048	16A	1NO + 1NC	120 min	MI2 mechanical clockwork timer	**771.00**
XTI2045	16A	1NO + 1NC	12 hour	MI2 mechanical clockwork timer	**822.00**
XTI15163*	16A	1NO + 1NC	24 hour	MI5 mechanical clockwork timer	**885.00**

* *Requires separate supply for 220V internal motor*

Above prices do not include VAT. E&OE



270354



270358



270001



270270

Multi-range - Multi-function - Multi-voltage, modular timer

- 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:

On-delay	*(on energising, relay only switches after preset time period)*
Interval (off-delay)	*(on energising, relay switches for preset time then resets)*
On/off delay	*(on energising, relay remains OFF for preset off-time, then switches ON for preset on-time, then resets)*
Equal repeat (off)	*(equal repeating starting with preset OFF time first)*
Equal repeat (on)	*(equal repeating starting with preset ON time first)*

type	description	supply voltage	price
T1-M5 Multi-Range/Function/Voltage electronic timer	*(IP20)*	*(width: 17.5 mm)*	
• Modular DIN rail mounting - *(H) 90.4 x (W) 17.5 x (D) 66.5 mm (aligns with standard 1 pole MCB)*			
270353	multi-range, multi-function, multi-voltage modular electronic timer	24 - 300 VAC/DC	**455.00**
T1-K Multi-function modular timer *(pulse controlled)*			
As above T1-M5 also with pulse control of functions *(via external contact)* 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	**455.00**
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.			
• Modular DIN rail mounting - *(H) 90.4 x (W) 17.5 x (D) 66.5 mm (aligns with standard 1 pole MCB)*			
• Multi-voltage: 150 - 500 VAC			
• Star time: tλ 1…30 seconds			
270358	modular DIN rail mounting electronic star-delta timer	150 - 500 VAC	**588.00**
LC3 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			
• Modular DIN rail mounting - *(H) 90 x (W) 36 x (D) 58 mm (aligns with standard 2 pole MCB)*			
• Sensitivity adjustment: 5 - 100kΩ			
• Time delay: 0.1 - 10 sec			
270001	modular DIN rail mounting electronic liquid level controller	150 - 500 VAC	**481.00**
Protection relays	*(IP20)*	*(width: 17.5 mm)*	
• 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%	**561.00**
Voltage monitor with phase-failure/reversal/imbalance	*(IP20)*	*(width: 17.5 mm)*	
• Modular DIN rail mounting - *(H) 90.4 x (W) 17.5 x (D) 66.5 mm (aligns with standard 1 pole MCB)*			
• Adjustable - *(via front facia dials)*			
Over voltage: +5...+20% with OFF *(override)* selection			
Under voltage: -5…-20% with OFF *(override)* 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%	**561.00**
G1-SA - 3 phase + neutral (L3-N)			
270130	modular 3ph+N over/under voltage monitor + ph failure/reversal	230 ±25%	**480.00**
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	**866.00**


602310


602320


602400


600103


600100

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	**2 805.00**
		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	**2 805.00**
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	**2 805.00**
		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	**2 351.00**
		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

- 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 0/400/450/500V AC *(10 ranges)*	**V/mA** same as Ascon 311 *(above)*	TRMS AC voltage transducer	**2 354.00**
600103	10 - 36 VDC			TRMS AC voltage transducer	**2 519.00**
600105	9 - 30 VDC			loop powered voltage t/ducer	**1 336.00**
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	**3 006.00**
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	**2 354.00**
600102	10 - 36 VDC			TRMS AC current transducer	**2 519.00**
600104	9 - 30 VDC			loop powered current t/ducer	**1 336.00**

Above prices do not include VAT. E&OE



DT... series

Temperature controllers

type	panel size (mm) W x H	description	output 1	output 2	price
DTK series - "Econo" temperature controller	*100 - 240 VAC 50/60Hz*	*(60 mm deep)*			

- Universal sensor inputs:
  - Thermocouple: Type (K-J-T-E-N-R-S-B-L-U-TXK)
  - Platinum RTD: Pt100, JPt100
- LCD display: Process Value (PV) Red colour - Set point (SV) Green colour
- Control method: PID, ON/OFF, Manual control mode
- Alarms: 1 alarm output with 9 selectable alarm modes
- Display: High resolution LCD display
- Speed: High speed sampling time (100ms)



DTK4848R01

DTK4848R01	48 x 48	econo temperature controller	relay *(5A AC1)*	–	**938.00**
DTK4848V01	48 x 48	econo temperature controller	14 VDC pulse	–	**938.00**
DTK4848C01	48 x 48	econo temperature controller	4 - 20mA	–	**938.00**
DTK4896R01	48 x 96	econo temperature controller	relay *(5A AC1)*	–	**1 037.00**
DTK4896V01	48 x 96	econo temperature controller	14 VDC pulse	–	**1 037.00**
DTK4896C01	48 x 96	econo temperature controller	4 - 20mA	–	**1 037.00**
DTK7272R01	72 x 72	econo temperature controller	relay *(5A AC1)*	–	**1 161.00**
DTK7272V01	72 x 72	econo temperature controller	14 VDC pulse	–	**1 161.00**
DTK9696R01	96 x 96	econo temperature controller	relay *(5A AC1)*	–	**1 320.00**
DTK9696V01	96 x 96	econo temperature controller	14 VDC pulse	–	**1 320.00**

DT3 series - Advanced high speed intelligent temperature controller



DT320...

new

New **DT3 series** temperature controller designed with upgraded hardware and higher specifications to offer smart operation, fast response and simple expendability and user-defined function keys.

- Various built-in sensor input modes:
  - Thermocouple: K, J, T, E, N, R, S, B, L, U, TXK
  - Platinum RTD: Pt100, JPt100, RTD: Cu50, Ni120
  - Analog input: 0 - 5 V, 0 - 10 V, 0 - 20 mA, 4 - 20 mA, 0 - 50 mV
- Various Control Modes: Auto Tuning, FUZZY, Manual,ON/OFF PID Process Control, Self Tuning
- Various Output Modes: Relay, Voltage pulse, Current DC , Linear voltage
- Communication: RS-485 communication MODBUS ASCII / RTU protocol
- Display: Large 3-colour LCD Display
- IP protection: IP66 protection level and CE, UL certified
- Output: Dual output control function for heating and cooling
- Detection: Heater disconnection detection
- Sampling rate: 100ms
- Supply voltage: 100 - 240 VAC



DT340...

			output 1	output 2	price
DT320RA-0200	48 x 48	advanced temperature controller	relay	*see **output 2** options (below)*	**1 633.00**
DT320VA-0200	48 x 48	advanced temperature controller	14 VDC pulse		**1 633.00**
DT340RA-0200	48 x 96	advanced temperature controller	relay		**1 826.00**
DT340VA-0200	48 x 96	advanced temperature controller	14 VDC pulse		**1 826.00**
DT360RA-0200	96 x 96	advanced temperature controller	relay		**2 008.00**
DT360VA-0200	96 x 96	advanced temperature controller	14 VDC pulse		**2 008.00**

***Note:** 24 VDC (change 7th digit **"A"** of part number to **"D"** for 24 VDC application on request)*

Expansion facilities and accessories for above DT3 controllers



DT360...

- Max 1 extra output card
- Max 2 optional cards

Replace the last **4 digits** for additional options:

First 2 digits identify the output - Last 2 digits identify the option

Example: **V213** is a voltage output with event and remote set up input.

0233 is no extra control output but with retransmission output and remote set up input.

- **R200**	Relay output (5A 250 VAC)	DT3-R	**211.00**
- **V200**	Voltage output (14 VDC pulse)	DT3-V	**211.00**
- **C200**	DC current output (4 - 20mA)	DT3-C	**211.00**
- **L200**	Linear voltage output (0 - 10 VDC)	DT3-L	**211.00**
- **0210**	Event input 1	DT3-EVENT	**211.00**
- **0220**	CT input 1	DT3-CTI	**211.00**
- **0230**	Retransmission output	DT3-RETRANS	**211.00**
- **0203**	Remote setup input	DT3-REMOTE	**211.00**

DT3-CT30A	30A	current transformer for heater disconnection or overcurrent detection	**305.00**
DT3-CT100A	100A	current transformer for heater disconnection or overcurrent detection	**410.00**


DTD4848R0


DTA4896R0


DTA7272R0


DTB4824RR


DTC1000...


DTC2000...

Temperature controllers

Common Characteristics

- Universal sensor inputs:
  Thermocouple: Type (K-J-T-E-N-R-S-B-L-U-TXK)
  Platinum RTD: Pt100, JPt100
- Display: 2-line 7-segment LED display *Process Value (PV) Red - Set point (SV) Green*

type	panel size (mm) W x H	description	output 1	output 2	price
DTA series - "Standard" temperature controller *100 - 240 VAC 50/60Hz IP65*					
• Control methods: PID, ON/OFF, Manual control • Sampling rate: 500msec					
DTA4848R0	48 x 48	standard temperature controller	relay	–	**1 309.00**
DTA4848V0	48 x 48	standard temperature controller	14 VDC pulse	–	**1 309.00**
DTA4848C0	48 x 48	standard temperature controller	4 - 20mA	–	**1 309.00**
DTA4896R0	48 x 96	standard temperature controller	relay	–	**1 422.00**
DTA9648R0	96 x 48	standard temperature controller	relay	–	**1 422.00**
DTA7272R0	72 x 72	standard temperature controller	relay	–	**1 422.00**
DTA9696R0	96 x 96	standard temperature controller	relay	–	**1 587.00**
DTB series - "Advanced" temperature controller *100 - 240 VAC 50/60Hz IP65*					
• Two groups of outputs to auto-tune 2 groups of PID parameters 3 groups of alarm outputs • Analog inputs: 0 - 5V, 0 - 10V, 0 - 20mA, 4 - 20mA, 0 - 50mA • Sampling rate: Analog input: 150msec, Thermocouple or Platinum RTD 400msec • Built-in dual loop output control for heating and cooling • Built-in RS-485 digital communication, 2.400 - 38.400bps					
DTB4824RR	48 x 24	advanced temperature controller	relay	relay	**1 491.00**
DTB4848RR	48 x 48	advanced temperature controller	relay	relay	**1 821.00**
DTB4848VR	48 x 48	advanced temperature controller	14 VDC pulse	relay	**1 821.00**
DTB4848CR	48 x 48	advanced temperature controller	4 - 20mA	relay	**1 821.00**
DTB4848LR	48 x 48	advanced temperature controller	0 - 5, 0 - 10V	relay	**1 821.00**
DTB4896RR	48 x 96	advanced temperature controller	relay	relay	**1 986.00**
DTB4896VR	48 x 96	advanced temperature controller	14 VDC pulse	relay	**1 986.00**
DTB4896CR	48 x 96	advanced temperature controller	4 - 20mA	relay	**1 986.00**
DTB9696RR	96 x 96	advanced temperature controller	relay	relay	**2 150.00**
DTB9696VR	96 x 96	advanced temperature controller	14 VDC pulse	relay	**2 150.00**
DTB9696CR	96 x 96	advanced temperature controller	4 - 20mA	relay	**2 150.00**
DTB9696LR	96 x 96	advanced temperature controller	0 - 5, 0 - 10V	relay	**2 150.00**
DTB4848RRE*	48 x 48	event input with 2 setpoints	relay	relay	**1 877.00**
DTB4896RRE*	48 x 96	event input with 2 setpoints	relay	relay	**2 048.00**

* *Event function, permits switching between 2 different temperature set points*

DTC series - "Modular" temperature controller *24 VDC, isolated switching power supply*

DTC features modular, wire-saving structure able to monitor many temperature points with parallel modular extensions, providing user configurable outputs according to actual requirements

- PID, programmable PID, ON/OFF, Manual control *(up to 64 sets)*
- Adopts dual-loop output control *(able to execute heating and cooling simultaneously)*
- Analog inputs: : 0 - 5V, 0 - 10V, 0 - 20mA, 4 - 20mA, 0 - 50mA
- Built-in RS-485 digital communication, 2.400 - 38.400bps

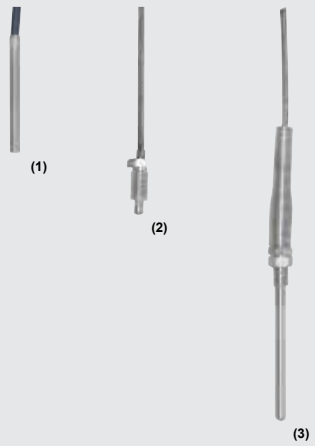
DTC1000R	25.2 x 90	main unit temperature controller	relay	relay	**1 252.00**
DTC1000C	25.2 x 90	main unit temperature controller	4 - 20mA	relay	**1 377.00**
DTC2000R	25.2 x 90	extension unit temp controller	relay	relay	**1 252.00**
DTC2000C	25.2 x 90	extension unit temp controller	4 - 20mA	relay	**1 377.00**

DVP02TK series - Temperature control modules *(universal input)* *Built-in RTU-485*

- Inputs: Analog: 0 - 10V, 0 - 20mA, 4 - 20mA (16-bit)
  Thermocouple: J, K, R, S, T, E, N, B, C, L, U, TXK, PLII
  RTD: Pt100, JPt100, Pt1000, Cu50, Cu100, Ni100, Ni1000, LG-Ni1000
- Output point: Built-in PID program control/manual control
- Expandable With **DVP02TU** plug-in modules to expand *(up to 8 modules)* *see page **C-4***

DVP02TKL-S	2 in	2 AO	2	analog	output voltage/current	analog	**2 707.00**
DVP02TKN-S	2 in	4 DO	4	transistor	NPN output overheat/current	transistor	**2 707.00**
DVP02TKR-S	2 in	4 rel	4	relay	output overheat/overcurrent	relay	**2 707.00**

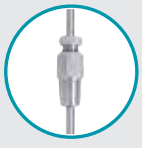
Above prices do not include VAT. E&OE











type	fitting type	type cable	type probe	description	tube SUS304 dia. Ø	tube SUS304 length (mm)	price
RTD (PT100) sensors		*(1.5m cable length)*					
• Tube: SUS304 material							
SJ-301/P505P	none	PVC	(1)	plain tube sensor	5	50	**498.00**
SJ-301/P510T	none	teflon	(1)	plain tube sensor	5	100	**565.00**
SJ-301/P520T	none	teflon	(1)	plain tube sensor	5	200	**565.00**
SJ-302/P510T	M8 thread	teflon	(3)	threaded coupling	5	100	**565.00**
SJ-302/P520T	M8 thread	teflon	(3)	threaded coupling	5	200	**565.00**
SJ-305/P520T	1/4" PT	teflon	(4)	threaded adj. coupling	5	200	**1 063.00**
*Add **"3"** to end of part number for 3 meter cable length.*							**+ 132.00**
KN-1/2PT-8-200-PT100	1/2" PT	term. box	(6)	screw terminal box	8	200	**1 196.00**
KN-1/2PT-8-300-PT100	1/2" PT	term. box	(6)	screw terminal box	8	300	**1 255.00**
Type "J" thermocouples		*(1.5m cable length)*					
• Tube: SUS304 material							
SJ-100/J505B	none	braid	(1)	plain tube sensor	5	50	**163.00**
SJ-100/J510B	none	braid	(1)	plain tube sensor	5	100	**163.00**
SJ-100/J520B	none	braid	(1)	plain tube sensor	5	200	**163.00**
SJ-105/J510B	M8 thread	braid	(3)	threaded coupling	5	100	**163.00**
SJ-105/J520B	M8 thread	braid	(3)	threaded coupling	5	200	**163.00**
SJ-106/JM8B	screw-in	braid	(2)	screw-in sensor	M8	–	**100.00**
SJ-107/J5BB	bayonet	braid	(5)	bayonet fixing sensor	5	–	**166.00**
*Add **"3"** to end of part number for 3 meter cable length.*							**+ 61.00**
KN-1/2PT-8-200-J	1/2" PT	term. box	(6)	screw terminal box	8	200	**1 076.00**
KN-1/2PT-8-300-J	1/2" PT	term. box	(6)	screw terminal box	8	300	**1 136.00**
Type "K" thermocouples		*(1.5m cable length)*					
• Tube: SUS304 material							
SJ-100/K505B	none	braid	(1)	plain tube sensor	5	50	**147.00**
SJ-100/K510B	none	braid	(1)	plain tube sensor	5	100	**147.00**
SJ-100/K520B	none	braid	(1)	plain tube sensor	5	200	**147.00**
SJ-105/K510B	M8 thread	braid	(3)	threaded coupling	5	100	**147.00**
SJ-105/K520B	M8 thread	braid	(3)	threaded coupling	5	200	**147.00**
SJ-106/KM8B	screw-in	braid	(2)	screw-in sensor	M8	–	**100.00**
SJ-107/K5BB	bayonet	braid	(5)	bayonet fixing sensor	5	–	**166.00**
*Add **"3"** to end of part number for 3 meter cable length.*							**+ 61.00**
KN-1/2PT-8-200-K	1/2" PT	term. box	(6)	screw terminal box	8	200	**1 076.00**
KN-1/2PT-8-300-K	1/2" PT	term. box	(6)	screw terminal box	8	300	**1 136.00**

Thermocouple wire			
RTD/T19W	PT100	teflon coated wire 19/0.13RTD-AFF-3C	*(per meter)* **90.00**
TC-IC-H/S	type J	steel braided covered thermocouple wire	*(per meter)* **42.00**
TC-CA-H/S	type K	steel braided covered thermocouple wire	*(per meter)* **42.00**

Thermocouple connectors							
M-7-J	type J	male	thermocouple connector	plug		black	**60.00**
F-7-J	type J	female	thermocouple connector	socket		black	**66.00**
M-7-K	type K	male	thermocouple connector	plug		yellow	**60.00**
F-7-K	type K	female	thermocouple connector	socket		yellow	**66.00**
AC05-1/2	threaded sliding coupling for probe			1/2" PT	ID dia 5	–	**598.00**
AC05-1/4	threaded sliding coupling for probe			1/4" PT	ID dia 5	–	**419.00**

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)*

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

	No.	functions
multi-function	A	on-delay
	B	interval
	C	equal repeat
	D	0ff delayed *(pulse controlled)*
	E	interval *(pulse controlled)*
	F	step relay
	G	pulse generator
	H	on/off delay


DMFTMV


DOD


DUR


DSD

type	supply voltage*	time range	function	description	price

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 type

DMFT012AD	12V AC/DC	1...8	A...H	multi-range/function timer	**665.00**
DMFT110A	110 VAC	1...8	A...H	multi-range/function timer	**665.00**
DMFT230A	230 VAC	1...8	A...H	multi-range/function timer	**665.00**
DMFT400A	400 VAC	1...8	A...H	multi-range/function timer	**665.00**
DMFT024AD	24V AC/DC	1...8	A...H	multi-range/function timer	**665.00**

Multi-voltage type

DMFTMV	12 - 260V AC/DC	1...8	A...H	multi-range/function/voltage timer	**779.00**

True off delay electronic timer

Multi-range OFF delay *(delay on release)* timer with advanced power back-up power circuitry to deliver wide time ranges. The unit has to 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 removing of supply)*

DOD230A	230 VAC	1...4	off delay	multi-range delay on de-energisation	**644.00**

Unequal repeating electronic timer multi-range (ON/OFF)

Multi-range 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

TIME RANGE A			TIME RANGE B		
NO	ON (adj)	OFF (adj)	NO	ON (adj)	OFF (adj)
1	6s	6s	1	60s	6m
2	60s	60s	2	6m	60s
3	6m	6m	3	6m	60m
4	60m	60m	4	60m	6m
5	6s	60s	5	60m	6h
6	60s	6s	6	6h	60m
7	6s	60m	7	60s	6h
8	60m	6s	8	6h	60s

DUR110A	110 VAC	1...8	repeat	unequal repeat timer	**665.00**
DUR230A	230 VAC	1...8	repeat	unequal repeat timer	**665.00**
DUR024AD	24V AC/DC	1...8	repeat	unequal repeat timer	**665.00**

Star-Delta timer

Multi-range Star / Delta timer with adjustable transition delay for starting inductive motors. Applying supply switches relay to "star" for the pre-set star period, on lapse of the star period the relays switches to a neutral "transition" position (4 - 180 ms) where after the relay switches to the "delta" position and remains there until supply is removed.

- Adjustable Star time: 30 – 60 sec
- Adjustable Transition time: 40 – 180 ms

DSD110A	110 VAC	–	star delta	star-delta timer	**606.00**
DSD230A	230 VAC	–	star delta	star-delta timer	**606.00**
DSD400A	400 VAC	–	star delta	star-delta timer	**606.00**

* *Other voltage options available on request.* **+ 10%**

Above prices do not include VAT. E&OE

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)*


DLL4

Economic GSM controller

Economic GSM controller with versatile functionally and ease of use with both inputs and outputs. SMS's are sent to the unit to control outputs and SMS is sent to the destination number for any change in inputs.

- 4 numbers for SMS's can be programmed
- ON, OFF and pulse relay function

type	supply voltage*	output	function	description	price
DGSM0024MV	10-30 VDC	–	GSM	GSM controller with 0 relays	**1 892.00**
DGSM4012D	12 VDC	–	GSM	GSM controller with 4 relays	**2 190.00**
DGSM4024D	24 VDC	–	GSM	GSM controller with 4 relays	**2 190.00**
ANT1	–	–	antenna	antenna for DGSM modules	**741.00**

Liquid level controllers *(H) 92 x (W) DLL/DLL4 36/54 x (D) 64 mm*

Controlling of liquid conductive levels with two/ four probes.

- Function: Emptying/ Filling


DCC

DLL230A	230 VAC	2 probes+comm	emptying / filling	liquid level controllers	**592.00**
DLL400A	400 VAC	2 probes+comm	emptying / filling	liquid level controllers	**592.00**
DLL024AD	24 VAC/DC	2 probes+comm	emptying / filling	liquid level controllers	**592.00**

- **Function:** Emptying/filling with alarm, emptying/filling with pump priority, container filling/well draining with alarm, electrode test

DLL4230A	230 VAC	4 probes+comm	emptying / filling	liquid level controllers	**917.00**
DLL4400A	400 VAC	4 probes+comm	emptying / filling	liquid level controllers	**917.00**
DLL4024AD	24 VAC/DC	4 probes+comm	emptying / filling	liquid level controllers	**917.00**

Radio *(wireless)* level controller

new


DWLT

- DIN radio receiver
- 5km transmission *(line of sight)*
- Coin Battery CR3202 for level transmitters *(3 years life span)*
- Two configurable *(radio connected)* relay outputs
- Supply voltage 12 or 24V AC/DC


DWLR

type	inputs	outputs	function	description	
DWLT	3 probe	–	transmitter	level transmitter	**1 379.00**
DWLR	level controller	2	receiver	level receiver	**1 436.00**
ANT2	–	–	antenna	per each DWL.. module	**741.00**

Signal Converters / Isolator *(12/24/48 AC/DC on special request)*

The Converters are a signal isolator designed to eliminate potential ground loop problems prevalent in 4 - 20mA control loops.

type	supply voltage*	input range		output range		description	
DCC111230A	230 VAC	**1**	0 - 5A	**11**	0 - 10 VDC	current analog converter	**876.00**
DCC108230A	230 VAC	**1**	0 - 5A	**8**	4 - 20mA	current analog converter	**876.00**
DCC108024D	24 VDC	**1**	0 - 5A	**8**	4 - 20mA	current analog converter	**1 363.00**
DSI511230A	230 VAC	**5**	4 - 20mA	**11**	0 - 10 VDC	optical signal converter	**1 092.00**
DSI508230A	230 VAC	**5**	4 - 20mA		4 - 20mA	optical signal converter	**1 092.00**
DSI708230A	230 VAC	**7**	0 - 10 VDC	**8**	4 - 20mA	optical signal converter	**1 092.00**
DSI508024D	24 VDC	**5**	4 - 20mA		4 - 20mA	optical signal converter	**1 417.00**


DSI

Note: *Alternative DCC/DSI input\output combinations available on request only.*

* *Other voltage options available on request.* **+ 10%**


DPP4


DPF


DCM


DLS

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*	phase	function	description	price
Advanced pump protection relay					
Advance pump protection relay to safeguard against damage to borehole pumps. The unit is easily calibrated and then monitors all important pump characteristics. • Over/under current protection • Running dry restart delay/over current retires • Over/under voltage protection *(with phase rotation on 3 phase units)*					
DPP1230A	230 VAC	single	pump relay	pump protection relay	**787.00**
DPP3400A	400 VAC	three	pump relay	pump protection relay	**871.00**
DPP4400A	400 VAC	three	pump relay	as above with adj./function selection	**914.00**
Phase failure/reversal relay *(sequence and imbalance)*					
Phase failure / reversal monitor for monitoring three phase supply voltage. The unit is ideal for protection against phase reversal, phase loss and phase imbalance.					
DPF1110A	110 VAC	three	failure relay	failure/reversal relay	**536.00**
DPF1400A	400 VAC	three	failure relay	failure/reversal relay	**536.00**
DPF1/K400A	400 VAC	three	failure relay	failure/reversal relay with adj.	**592.00**
DPF1525A	525 VAC	three	failure relay	failure/reversal relay	**536.00**
DPF1/N400A	400 VAC	three	failure relay	as above with neutral	**592.00**
DPF1/K525A	525 VAC	three	failure relay	failure/reversal relay with adj.	**592.00**
Voltage window comparator + phase failure					
Over/under voltage monitoring/reversal. • Delays : No delay, startup delay 10 sec,180 sec recovery delay, reaction delay 10 sec					
DVW1230A	230 VAC	single	comparator	electronic timer	**676.00**
DVW3110A	110 VAC	three	comparator	electronic timer	**682.00**
DVW3400A	400 VAC	three	comparator	electronic timer	**682.00**
DVW3525A	525 VAC	three	comparator	electronic timer	**682.00**
DVW3N400A	400 VAC	three	comparator	as above with neutral	**676.00**
Voltage monitor					
Monitors a separate voltage than supply voltage. • Delays : No delay,startup delay 10sec,180 sec recovery delay, reaction delay 10sec					
DVM400A-230A	230 VAC	–	400 VAC monitoring	voltage monitor device	**673.00**
DVM024D-24A	24 VDC	–	24 VAC monitoring	voltage monitor device	**673.00**
DVM30MV-30MV	10 - 30 VDC	–	10 - 30 VDC monitoring	voltage monitor device	**673.00**
Current monitor					
Over or under current monitoring. • Delays : No delay,startup delay 10sec,180 sec recovery delay, reaction delay 10 sec					
DCM5230A	230 VAC	can interface with 5A CT		current monitor device	**779.00**
DCM5400A	400 VAC	can interface with 5A CT		current monitor device	**779.00**
DCM5024D	24 VDC	can interface with 5A CT		current monitor device	**1 049.00**
DCM15230A	230 VAC	direct monitor up to 15 A		current monitor device	**779.00**
Current window comparator *(over and under current monitoring)*					
Current window comparator for monitoring current between two levels. • Delays : No delay,startup delay 10sec,180 sec recovery delay, reaction delay 10 sec					
DCW5230A	230 VAC	can interface with 5A CT		current window comparator timer	**779.00**
DCW15230A	230 VAC	direct monitor up to 15 A		current window comparator timer	**779.00**
Load shed relays					
Load shed relay featuring high resolution analog converter to produce precise switching levels. The relay monitors current consumed and switches unnecessary load off.					
DLS230A	230 VAC	1 circuit	16A direct conn.	load shed relay	**746.00**
* *Other voltage options available on request.*					**+ 10%**

Above prices do not include VAT. E&OE

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)*


DDCT

type	supply voltage*	time range	function	description	price
Digital counter/timer					
Multi-function four digit counter/timer designed with the latest microprocessor technology. Setup and ranges can be adjusted with an easy to access and control menu system to make all common function available. • 4 digit count *(up/down)* with selectable prescaler • Timer *(up/down)* with pulse start/stop • 4 time ranges: 999.9s - 9999 min					
DDCT230A	230 VAC	999.9 -9999	timer	counter / timer	**990.00**
Digital temperature controller with timer *(interfaces with TP1 digital probe)*					
Multi-function/range digital temperature controller with four digit counter/timer designed with the latest microprocessor technology. Setup and ranges can be adjusted with an easy to access and control menu system to make all common function available. • Two set points / relay outputs / PID control • Over / under temperature					


DDDT

DDTC230A	230 VAC	–	controller	digital temperature controller	**990.00**
DDTCT230A	230 VAC	–	controller	temp controller with 24 hour clock	**1 136.00**
TP1	–	–	–	temperature probe	**200.00**
Digital voltage window comparator timer					
Multi-function/range digital voltage window comparator timer for monitoring supply voltage between two levels. • Over and under voltage and frequency monitoring • 2 relay outputs for individual function • Adjustable delays • Phase reversal on 3 phase units • Separate supply					

type	supply voltage*	phase	function	description	
DDVW3400A	400 VAC	three	timer	digital voltage timer	**1 233.00**
Digital current window comparator timer *(can interface with 5A CT's)*					
Multi-function digital current window comparator for monitoring current between two levels. • Over and under current and frequency monitoring • 2 relay outputs for individual function • Adjustable delays • Separate supply					


DDVW3

DDCW3230A	230 VAC	three	timer	digital current timer	**1 598.00**
DDCW3400A	400 VAC	three	timer	digital current timer	**1 598.00**
* *Other voltage options available on request.*					**+ 10%**
Handheld radio *(wireless)* **variable speed drive controller** *(DIN Radio Receiver)*					
New radio wireless variable speed drive controller designed to interface with PLC function of variable speed drives. • Handheld remote 800m transmission *(line of sight)*					



DRT


DRR

type	inputs	outputs	function	description	
DRR	12 or 24V ACDC	5 solid state	receiver	radio VSD controller	**1 352.00**
DRT	–	–	transmitter	handheld VSD controller	**1 487.00**
ANT2	–	–	antenna	for DRR module	**741.00**
Wireless signal extender *(3 inputs and 3 outputs: Tx and Rx)*					
• Power supply: 12 or 24V ACDC • License free radio band • 7km transmission - line of sight *(includes Watchdog protection)*					
DRC/M	3	3 relay	master transceiver	wireless signal extender	**1 436.00**
DRC/S	3	3 relay	slave transceiver	wireless signal extender	**1 352.00**
ANT2	–	–	antenna	per each DRC module	**741.00**


T2M

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

- Compact DIN rail mounting: *(H) 80 x (W) 35 x (D) 79 mm (3 modules wide)*

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

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

type	supply voltage*	time range	function	description	price
Multi-range/multi-function timers - *(4 x selectable time ranges / 4 x selectable functions)*					
Multi-function multi-range plug-in timers that includes all commonly used 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	1 - 4	A - C	multi-range/function timer	**552.00**
T2M230A	230 VAC	1 - 4	A - C	multi-range/function timer	**552.00**
T2M400A	400 VAC	1 - 4	A - C	multi-range/function timer	**552.00**
T2M012AD	12V ACDC	1 - 4	A - C	multi-range/function timer	**552.00**
T2M024AD	24V ACDC	1 - 4	A - C	multi-range/function timer	**552.00**
T2M048AD	48V ACDC	1 - 4	A - C	multi-range/function timer	**552.00**
T3M110A	110 VAC	1 - 4	A - D	multi-range/function timer	**649.00**
T3M230A	230 VAC	1 - 4	A - D	multi-range/function timer	**649.00**
T3M024AD	24V ACDC	1 - 4	A - D	multi-range/function timer	**649.00**


T2D

True OFF delay on de-energisation timer *(delay on removal of supply)*					
Application of supply operates the relay. On removal of supply the pre-set time period begins, on lapse of time period the relay releases. If supply re-applied before relay releases the time period is reset and relay remains on until supply is removed again. Note: should not be operated by pulses shorter than 30 seconds.					
		sec			
T2D10S230A	230 VAC	10	off delay	multi-range delay on de-energisation	**633.00**
T2D30S230A	230 VAC	30	off delay	multi-range delay on de-energisation	**633.00**
T2D30S400A	400 VAC	30	off delay	multi-range delay on de-energisation	**633.00**
T2D60S230A	230 VAC	60	off delay	multi-range delay on de-energisation	**633.00**
T2D180S024AD	24V ACDC	180	off delay	multi-range delay on de-energisation	**633.00**
T2D180S230A	230 VAC	180	off delay	multi-range delay on de-energisation	**633.00**
T2D360S024AD	24V ACDC	360	off delay	multi-range delay on de-energisation	**633.00**
T2D360S230A	230 VAC	360	off delay	multi-range delay on de-energisation	**633.00**
		min			
T2D/B10M230A	230 VAC	10	off delay	multi-range delay on de-energisation	**698.00**
T2D/B30M230A	230 VAC	30	off delay	multi-range delay on de-energisation	**698.00**
T2D/B60M230A	230 VAC	60	off delay	multi-range delay on de-energisation	**698.00**
T2D/B180M230A	230 VAC	180	off delay	multi-range delay on de-energisation	**698.00**


R2U

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	–	repeat	unequal repeating timer	**582.00**
R2U230A	230 VAC	–	repeat	unequal repeating timer	**582.00**
R2U400A	400 VAC	–	repeat	unequal repeating timer	**582.00**
R2U012AD	12V ACDC	–	repeat	unequal repeating timer	**582.00**
R2U024AD	24V ACDC	–	repeat	unequal repeating timer	**582.00**
* *Other voltage options available on request.*					**+ 10%**

Above prices do not include VAT. E&OE


TNE

Star-delta timer multi-range *(for ON and OFF ranges)*

Applying supply switches relay to "star" for the pre-set star period, on lapse of the star period the relays switches to a neutral "transition" position (4-180 msec) where after the relay switches to the "delta" position and remains there until supply is removed.

type	supply voltage*	time range	function	description	price
		sec			
TNE30S024AD	24V ACDC	30	star delta	star delta timer	**482.00**
TNE30S110A	110 VAC	30	star delta	star delta timer	**482.00**
TNE30S230A	230 VAC	30	star delta	star delta timer	**482.00**
TNE30S400A	400 VAC	30	star delta	star delta timer	**482.00**
TNE60S024AD	24V ACDC	60	star delta	star delta timer	**482.00**
TNE60S230A	230 VAC	60	star delta	star delta timer	**482.00**
TNE60S400A	400 VAC	60	star delta	star delta timer	**482.00**
TNE180S230A	230 VAC	180	star delta	star delta timer	**482.00**

Defrost timer *(with fan delay)*

Configurable for 4-hour *(defrost cycle every 4 hours)* or 8 hour cycles. Application of supply starts the pre-select 1 - 60 min defrost cycle, thereafter the relay switches to the cooling cycle activating the pre-set 1-60sec fan delay period *(to prevent water splatter and warm air blowing into the room)* and then starts the fan.

- Cycle: 4 or 8 hr
- Defrost: 3-60 min
- Fan: 3-60 sec

DEF1/F230A	230 VAC	timer	–	defrost timer	**660.00**

Econo range timers

T10/10S230A	230 VAC	10	on-delay	econo on-delay timer	**398.00**
T10/10S400A	400 VAC	10	on-delay	econo on-delay timer	**398.00**
T10/30S230A	230 VAC	30	on-delay	econo on-delay timer	**398.00**
T10/60S230A	230 VAC	60	on-delay	econo on-delay timer	**398.00**
T10/180S024AD	24V ACDC	180	on-delay	econo on-delay timer	**398.00**
T10/180S230A	230 VAC	180	on-delay	econo on-delay timer	**398.00**
T10/360S024AD	24V ACDC	360	on-delay	econo on-delay timer	**398.00**
T10/360S230A	230 VAC	360	on-delay	econo on-delay timer	**398.00**
T10/360S400A	400 VAC	360	on-delay	econo on-delay timer	**398.00**
T10/600S024AD	24V ACDC	600	on-delay	econo on-delay timer	**398.00**
T10/600S230A	230 VAC	600	on-delay	econo on-delay timer	**398.00**
T10/600S400A	400 VAC	600	on-delay	econo on-delay timer	**398.00**
T10/600S525A	525 VAC	600	on-delay	econo on-delay timer	**398.00**
T10/60M230A	230 VAC	60min	on-delay	econo on-delay timer	**398.00**
T1IP/30S024AD	24V ACDC	30	interval	econo pulsed internal timer	**544.00**
T1IP/30S230A	230 VAC	30	interval	econo pulsed internal timer	**544.00**
T1P/230A	230 VAC	–	one-shot	econo impulse relay	**482.00**
PCT1/230A	230 VAC	–	timer	econo percentage timer	**582.00**
PCT1/400A	400 VAC	–	timer	econo percentage timer	**582.00**
FRT1/230A	230 VAC	–	timer	econo forward/reverse timer	**584.00**
TP2/230A	230 VAC	–	timer	econo two shot timer	**582.00**
SSF1/230MV	95 - 240 VAC	–	timer	econo solid state flasher	**611.00**


T10

* *Other voltage options available on request.* **+ 10%**


RRP1

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

- Compact DIN rail mounting: *(H) 80 x (W) 35 x (D) 79 mm (3 modules wide)*

type	supply voltage*	time range	function	description	price
Two hand control		*(safety control)*			
THC1 two hand control designed as a safety device for machines where operator is forced to operate two pushbuttons within 0.5 secs to operate machines. A latch facility is provided for use with a foot switch.					
THC1230A	230 VAC	–	control	two hand controller	**536.00**
Flip flop relays					
Flip flop relays to control many applications such as spreading work load and controlling conveyor direction. F30 combines the discontinued F10 and F23 function. F30 in the mains controlled function has to be energised for at least 30 seconds before the supply is removed.					
F12230A	230 VAC	–	relay	pulse controlled without memory	**584.00**
F30230A	230 VAC	–	relay	mains or pulse controlled with memory	**652.00**
F30024AD	24 VACDC	–	relay	mains or pulse controlled with memory	**652.00**
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. The system can be expanded by bridging all common terminals of the modules.					
GAM3012D	12 VDC	–	alarm	control alarm signals	**628.00**
GAM3024D	24 VDC	–	alarm	control alarm signals	**628.00**
Power supply					
Provides a regulated DC output from an AC input source.					
• Supply: 230 VAC • Output: 24 VDC (1A)					
PSU	230 VAC - 24 VDC	24VA	power supply	overload/short circuit protection	**252.00**
Tachometer relay		*multi-range (for ON and OFF ranges)*			
Multi-function tachometer relay with four selectable speeds. The unit can be selected for OVER and UNDER speeds and interfaces directly with a 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(RPM): 1-10, 10-100, 100-1000,1000-10000					
RRP1024AD	24V AC\DC	–	relay	over/under speed	**590.00**
RRP1110A	110 VAC	–	relay	over/under speed	**590.00**
RRP1230A	230 VAC	–	relay	over/under speed	**590.00**
RRP1012D	12 VDC	–	relay	over/under speed	**590.00**
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	temperature controller	**660.00**
T1R/180S230A	230 VAC	180s	relay	temperature controller	**660.00**


T1R


SC1

Converters / Isolaters

Compact signal converter with built-in 24 VDC 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	
SC120A111230A	230 VAC	0 - 1A	4 - 20mA	current converter	**1 017.00**
SC120A211110A	110 VAC	0 - 5A	4 - 20mA	current converter	**1 017.00**
SC120A211230A	230 VAC	0 - 5A	4 - 20mA	current converter	**1 017.00**
SI1201011230A	230 VAC	0 - 10 VDC	4 - 20mA	signal converter	**1 438.00**
SI1201011024D	24 VDC	0 - 10 VDC	4 - 20mA	signal converter	**2 000.00**
SI1200711230A	230 VAC	4 - 20mA	4 - 20mA	signal converter	**1 438.00**
SI1201014230A	230 VAC	0 - 10 VDC	0 -10 VDC	signal converter	**1 438.00**

Note: *Alternative* ***SC120A../SI120..*** *input and output combinations available on request only.*

* *Other voltage options available on request.*

+ 10%

Above prices do not include VAT. E&OE



LA5

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

- Compact DIN rail mounting: *(H) 80 x (W) 35 x (D) 79 mm (3 modules wide)*

Current monitor

The module directly interfaces with conventional 5A CTs.The relay will only operate as long as monitored current remains below the pre-set limit or above the pre-set limit.

type	supply voltage*	input signal	function	description	price
• Hysteresis 5 - 50%					
LA51230A	230 VAC	0 - 1A	relay	over or under current monitor	**682.00**
LA55230A	230 VAC	0 - 5A	relay	over or under current monitor	**682.00**
LA55400A	400 VAC	0 - 5A	relay	over or under current monitor	**682.00**
WA55230A	400 VAC	0 - 5A	relay	over and under current monitor	**682.00**

Voltage monitor

V1C is a precise UNDER / OVER voltage monitoring relay. This relay monitors a separate voltage input *(Pins 5 + 7)*. The relay will only operate as long as the monitored voltage remains "BELOW" the pre-set over voltage then supply voltage limit or "ABOVE" the pre-set overvoltage limit.

type	supply voltage*	phase	function	description	
V1C230A400MV	230 VAC	40 - 400 VAC	over and under	voltage monitor	**611.00**



SFK1

Frequency monitor

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

- Upper - 50-56Hz
- Lower - 40-50Hz

H1E0230A	230 VAC	three	over and under	frequency monitor	**579.00**

Phase failure / sequence relay

The SF1 monitors Negative Phase Sequence (NPS) voltage to detect phase failure, phase reversal and phase imbalance. The relay will only operate while all three phases are present and in sequence.

SF1110A	110 VAC	three	relay	phase failure	**455.00**
SF1400A	400 VAC	three	relay	phase failure	**455.00**
SF1525A	525 VAC	three	relay	phase failure	**455.00**
• With knob					
SF1K400A	400 VAC	three	relay	phase failure with adj.for NPS	**471.00**
SF1K525A	525 VAC	three	relay	phase failure with adj.for NPS	**471.00**

Over / under voltage monitor *(incorporating phase failure)*



V3E...

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. Providing effective power supply supervision and protection.

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

V1E230A	230 VAC	single	over and under	voltage monitor	**657.00**
V3E110A	110 VAC	three	over and under	voltage monitor	**679.00**
V3E400A	400 VAC	three	over and under	voltage monitor	**679.00**
V3E525A	525 VAC	three	over and under	voltage monitor	**679.00**
V3EN400A	400 VAC	three +N	over and under	voltage monitor	**679.00**

* *Other voltage options available on request.* **+ 10%**


LV1


LP3


SN1


PS3S

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

- Compact DIN rail mounting:

type	supply voltage*	time range	function	description	price
Level controllers	*(failsafe control and monitoring of high and / or low levels)*				
Level control unit of conductive liquids which can be configured for FILLING or EMPTYING. The unit 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)*. The sensitivity of the unit can also be adjusted.					
• Emptying/ filling					
LV1024A	024 VAC	–	level control	liquid conductive controller	**552.00**
LV1110A	110 VAC	–	level control	liquid conductive controller	**552.00**
LV1230A	230 VAC	–	level control	liquid conductive controller	**552.00**
LV1400A	400 VAC	–	level control	liquid conductive controller	**552.00**
LV1525A	525 VAC	–	level control	liquid conductive controller	**552.00**
LV1024D	024 VDC	–	level control	liquid conductive controller	**822.00**
LVC1230A	230 VAC	–	level control	DC capacitive probe controller	**514.00**
Pump sequence relay					
Alternating relays are designed to minimize pump and motor wear by equalizing run time between parallel components in a multi-pump system. These relays are controlled by an external control switch.					
• Three normally open pump outputs • Permanent memory for next pump activated after power off • Three normally open pressure switch inputs *(voltage free)*					
PSR1230A	230 VAC	3 circuits	relay	pump sequencing relay	**630.00**
Pump protection relay					
Pump protection relay capable of protecting a submersible pump against all major power line faults.					
• Over / Under Current protection • Running dry restart delay / Over current retries • Over / Under Voltage protection with phase rotation on 3 phase units					
Function: Voltage monitoring Current monitoring Security switch trip Star / Delta connection					

type	supply voltage*	recovery time	function	phase	description	price
LP1230A	230 VAC	6 hours	relay	single	pump protection relay	**617.00**
LP2230A	230 VAC	1-2-4-8 hrs	relay	single	pump protection relay	**787.00**
LP3400A	400 VAC	1-2-4-8 hrs	relay	three	pump protection relay	**806.00**

Accessories

SN1	single line insulated stainless steel probe for conductive liquids	**117.00**
PS3S	3 electrode holder *(mounts through 50.5 mm hole)*	**133.00**
P1000S	electrodes for PS3S holder *(1 meter length)*	**63.00**
FS03-3P	electrode spacer disc *(for extended probe length)*	**27.00**
PXL	extension locknut *(each)*	**25.00**

* *Other voltage options available on request.* **+ 10%**

Above prices do not include VAT. E&OE



EX11 + EX08



EMD02



EMD03

11 pin - Plug-in black plastic housings *(for electronic components)*

type	dimensions	description	price
11 pin - Plug-in black plastic housings *(for electronic components)*			
EX01		metal retaining clip for plug-in devices	**29.00**
EX02		panel mount adaptor	**69.00**
EX11	(H) 80 x (W) 35 x (D) 79	11 pin empty housing complete *(black)* 31.20	**35.00**
EX08	front label	blank adhesive label for front of housing	**6.00**
EX06B	black knob	potentiometer knob for above housing	**2.80**
EX06G	grey knob	potentiometer knob for above housing	**2.80**
Modular housings *(grey) 6.3 mm terminal centre spacing*			
• Lines up with standard DIN MCBs and modular devices *(2 or 3 modules wide)*			
EMD02	(H) 92 x (W) 35.5 x (D) 64	2 module complete housing Din rail mount	**39.00**
EMD03	(H) 92 x (W) 53.3 x (D) 64	3 module complete housing Din rail mount	**39.00**
EMX02	front label	blank adhesive front label for EMD02 *(2 modular)* housing	**16.80**
EMX03	front label	blank adhesive front label for EMD03 *(3 modular)* housing	**16.80**
EMX04	adj. knob	screw adjustable knob for internal potentiometer	**5.50**


P44MFT1


P44VM12


P44-HUM1


P44HTC1

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

Modular DIN rail mounting digital timing, counting, control and monitoring devices available in a compact housing design. Features 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	relays	with 4-20mA	description	price
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	**1 814.00**
P44MFT1-024AD	24V AC/DC	1sec - 9999 hrs	1	–	multifunction timer	**1 814.00**
P44ACT1-240A	240 VAC	1sec - 100 hrs	2	–	accumulation Timer	**1 917.00**
P44RHM1-240A	240 VAC	1sec - 9999 hrs	1	–	running hour meter	**1 814.00**
P44CNT1-240A	240 VAC	4 or 8 digit mode	1	–	counter / frequency indicator	**1 789.00**
P44CWT1-240A	240 VAC	0 - 100min or hrs	1	–	digital clockwork timer	**1 814.00**
Voltage indicator / monitor						
• Displays and/or monitors true RMS single or three phase supply voltages						
P44VM12-T-240A	240 VAC	0 - 300V	2	yes	single phase voltage indicator	**2 197.00**
P44VM32N-400A	400 VAC	0 - 500V	2	–	3 ph voltage & frequency monitor	**2 121.00**
P44VMD1-240A	240 VAC	0 - 150V	1	–	DC voltage indicator	**1 687.00**
P44VMD2-T-240A	240 VAC	0 - 150V	2	yes	DC voltage indicator	**2 096.00**
(N) *software selectable neutral monitoring as well.*						
Current monitors						
• Displays and/or monitors true RMS AC current signal from current transformers						
P44CMA1-5-240A	240 VAC	0 - 5A	1	–	AC current monitor	**1 892.00**
P44CMA2-5-T-240A	240 VAC	0 - 5A	2	yes	AC current monitor	**2 326.00**
P44CMA2-5-240A	240 VAC	0 - 5A	2	–	AC current monitor	**1 993.00**
0-10V re-transmit available on request.						
Humidity controller						
P44-HUM1-240A	240 VAC	0 - 100%	1	–	humidity controller	**1 611.00**
HS4					humidity controller probe *(3 meter length)*	**647.00**
Temperature controllers						
• Displays and/or monitors temperature using various temperature sensors						
• **Sensor:** PT100						
P44HTC1-240A	240 VAC	-50°C to 440°C	1	–	temperature controller	**1 610.00**
P44HTC1-T-024D	24 VDC	-50°C to 440°C	1	yes	temperature controller	**2 489.00**
P44HTC1-T-240A	240 VAC	-50°C to 440°C	1	yes	temperature controller	**1 942.00**
P44HTCT1-240A	240 VAC	-50°C to 440°C	1	–	temp controller and 24hr timer	**1 789.00**
P44HTC2-240A	240 VAC	-50°C to 440°C	2	–	temperature controller	**1 712.00**
P44HTC2-T-240A	240 VAC	-50°C to 440°C	2	yes	temperature controller	**2 044.00**
P44HTC2-T-024D	24 VDC	-50°C to 440°C	2	yes	temperature controller	**2 591.00**
P44-RTC1-240A	240 VAC	-50°C to 440°C	1	–	ramp temperature controller	**1 584.00**
• **Sensor:** Thermocouple						
P44TTC1-240A	240 VAC	-50°C to 1320°C	1	–	temperature controller	**1 635.00**
P44TTC1-T-240A	240 VAC	-50°C to 1320°C	1	yes	temperature controller	**1 968.00**
For type J,K,R,S,T,N thermocouples.						
* *Other voltage options available on request.*						**+ 15%**

Above prices do not include VAT. E&OE


P44LM1

48 x 48 panel mount - 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	relays	with 4-20mA	description	price
Loop indicator						
P44LM1-240A	240 VAC	0/4 - 20mA	1	–	loop indicator	**1 687.00**
P44LM1-P-240A	240 VAC	0/4 - 20mA	1	24 VDC PS	loop indicator	**1 968.00**
P44LM1-T-240A	240 VAC	0/4 - 20mA	1	yes	loop indicator	**1 993.00**
P44LM2-240A	240 VAC	0/4 - 20mA	2	–	loop indicator	**1 789.00**
P44LM2-P-240A	240 VAC	0/4 - 20mA	2	24 VDC PS	loop indicator	**2 070.00**
P44LM2-P-024D	24 VDC	0/4 - 20mA	2	24 VDC PS	loop indicator	**2 617.00**
P44LM2-T-240A	240 VAC	0/4 - 20mA	2	yes	loop indicator	**2 096.00**

Note: *0-10V re-transmit output available on request.*


P44RPM1

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.

P44SM1-10-240A	240 VAC	1 - 10V*	1	–	signal monitor	**1 687.00**

* *Available with a 0-5V or 10K potentiometer input on request*

RPM / pulses per hour

Displays and/or monitors speed (RPM) relay remains energised while monitored speed is within pre-set parameters NO-NPN proxi, *(PNP available on request)*.

P44RPM1-240A	240 VAC	0 - 9999	1	–	RPM monitor	**1 687.00**
P44RPM2-240A	240 VAC	0 - 9999	2	–	RPM monitor	**1 789.00**

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


P49MFT1

48 x 96 mm panel mounting digital timing, counting, control and monitoring devices are available in a compact housing design. 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	**1 840.00**
P49MFT1-024AD	24V AC/DC	1sec - 9999 hrs	1	–	multi-function timer	**2 154.00**
P49ACT1-240A	240 VAC	1sec - 100 hrs	1	–	accumulation timer	**1 942.00**
P49CNT1-240A	240 VAC	4 digit mode	1	–	counter / frequency monitor	**1 814.00**
P49CNT1-024AD	24V AC/DC	4 digit mode	1	–	counter / frequency monitor	**1 814.00**
P49CWT1-240A	240 VAC	0 - 100min or hrs	1	–	digital clockwork timer	**1 840.00**

Voltage indicator / monitor

- Displays and/or monitors true RMS single or three phase supply voltages

P49VM10-240A	240 VAC	0 - 300V*	1	–	single phase voltage monitor	**1 661.00**

0 - 10V re-transmit available on request

P49VM31N-400A	400 VAC	0 - 500V	1	–	3 ph voltage & frequency indicator	**2 044.00**
P49VM32N-400A	400 VAC	0 - 500V	2	–	3 ph voltage & frequency indicator	**2 147.00**

(N) *software selectable neutral monitoring as well.*


P49VM

P49VMD2-240A	240 VAC	0 - 150V*	2	–	DC voltage indicator	**2 019.00**

0 - 10V re-transmit available on request

* *Other voltage options available on request.* **+ 15%**



P49CMA

Current monitors

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

type	supply voltage*	range	relays	with 4-20mA	description	price
Current monitors						
Displays and/or monitors true RMS AC current signal from current transformers.						
P49CMA1-5-240A	240 VAC	0 - 5A	1	–	AC current monitor	**1 892.00**
P49CMA2-5-240A	240 VAC	0 - 5A	2	–	AC current monitor	**1 993.00**
P49CMD1-240A	240 VAC	0 - 50mV	1	–	DC current monitor	**1 892.00**
0 - 10V re-transmit available on request.						
Temperature controllers	*can be used with one or two **TS3** temperature probes*					
• Displays and/or monitors temperature from various temperature sensors.						
P49TC1-240A	240 VAC	-30°C to 105°C	1	TS3 probe	temperature controller	**1 610.00**
P49TC2-240A	240 VAC	-30°C to 105°C	2	TS3 probe	temperature controller	**1 712.00**
TS3	temperature probe for above controllers				*(3 meter cable)*	**300.00**
P49HTC1-240A	240 VAC	-50°C to 440°C	1	PT100	temperature controller	**1 795.00**
P49HTC1-T-240A	240 VAC	-50°C to 440°C	1	PT100	temperature controller	**2 376.00**
P49HTC2-240A	240 VAC	-50°C to 440°C	2	PT100	temperature controller	**1 942.00**
P49TTC1-240A	240 VAC	-50°C to 1320°C	1	thermocouple	temperature controller	**1 866.00**
P49TTC2-T-240A	240 VAC	-50°C to 1320°C	2	thermocouple	temperature controller	**2 504.00**
For type J,K,R,S,T,N thermocouples.						



P49TC

Signal indicators / monitors – 4-20 mA 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.						
P49LM1-024D	24 VDC	0/4 - 20mA	1	–	loop indicator	**2 232.00**
P49LM1-P-024D	24 VDC	0/4 - 20mA	1	24 VDC PS	loop indicator	**2 537.00**
P49LM1-240A	240 VAC	0/4 - 20mA	1	–	loop monitor	**1 917.00**
P49LM1-P-240A	240 VAC	0/4 - 20mA	1	24 VDC PS	loop monitor	**2 223.00**
P49LM1-T-240A	240 VAC	0/4 - 20mA	1	yes	loop monitor	**2 454.00**
P49LM1-T-024D	24 VDC	0/4 - 20mA	1	yes	loop monitor	**2 768.00**
P49LM1-P-T-240A	240 VAC	0/4 - 20mA	1	24 VDC PS	loop monitor	**2 759.00**
P49LM2-240A	240 VAC	0/4 - 20mA	2	–	loop monitor	**2 019.00**
P49LM2-P-240A	240 VAC	0/4 - 20mA	2	24 VDC PS	loop monitor	**2 326.00**
P49LM2-P-T-240A	240 VAC	0/4 - 20mA	2	24 VDC PS	loop monitor	**2 863.00**
P49LM2-T-240A	240 VAC	0/4 - 20mA	2	yes	loop monitor	**2 555.00**
Signal indicator / monitors – 0 - 10V input						
P49SM1-10-024A	24 VAC	0 - 10V*	1	–	signal indicator	**1 917.00**
P49SM1-10-024D	24 VDC	0 - 10V*	1	yes	signal indicator	**2 232.00**
P49SM1-10-T-240A	240 VAC	0 - 10V*	1	yes	signal indicator	**2 454.00**
P49SM1-10-240A	240 VAC	1 - 10V*	1	–	signal monitor	**1 917.00**
P49SM2-10-240A	240 VAC	1 - 10V*	2	–	signal monitor	**2 019.00**
P49SM2-10-T-240A	240 VAC	1 - 10V*	2	yes	signal monitor	**2 555.00**
P49SM2-10-T-024D	24 VDC	1 - 10V*	2	yes	signal monitor	**2 870.00**
* *Available with a 0 - 5V or 10K potentiometer input*						



P49LM

RPM / pulses per hour						
Displays and/or monitors speed (RPM) relay remains energised while monitored speed is within pre-set parameters.						
P49RPM1-02AD	12V AC/DC	0 - 9999	1	–	RPM monitor	**2 027.00**
P49RPM1-240A	240 VAC	0 - 9999	1	–	RPM monitor	**1 712.00**
P49RPM1-024AD	24V AC/DC	0 - 9999	1	–	RPM monitor	**2 027.00**
P49RPM1-T-240A	240 VAC	0 - 9999	1	yes	RPM monitor	**2 249.00**
***Note:** 0-10V re-transmit output available on request.*						
* *Other voltage options available on request.*						**+ 15%**



P49RPM

Above prices do not include VAT. E&OE


D3CNT1

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

type	supply voltage*	range	relays	with 4-20mA	description	price
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	**1 916.00**
D3ACT1-240A	240 VAC	1sec - 100 hrs	1	–	accumulation timer	**2 019.00**
D3RHM1-240A	240 VAC	1sec - 9999 hrs	1	–	running hour meter	**1 917.00**
D3CNT1-240A	240 VAC	4 or 8 digit mode	1	–	counter / freq. monitor	**1 892.00**
D324HR2-240A	240 VAC	24 hours	2	–	4 selectable time zones	**1 994.00**
Voltage indicator / monitor						
Monitors and displays true RMS single or three phase supply voltages.						
D3VM31N-400A	400 VAC	0 - 500V (3ph)	1	–	voltage & freq. monitor	**2 121.00**
D3VM32N-400A	400 VAC	0 - 500V (3ph)	2	–	3 ph voltage & frequency monitor	**2 224.00**
***(N)** software selectable neutral monitoring as well*						
D3VMD1-240A	240 VAC	–	1	–	DC voltage monitor	**1 789.00**
D3VMD2-024D	24 VDC	–	2	–	DC voltage monitor	**2 206.00**
D3VMD2-T-240A	240 VAC	–	2	yes	DC voltage monitor	**2 223.00**


D3VM

Current monitors						
Monitors and displays true RMS AC current signal from current transformers.						
D3CMA1-5-240A	240 VAC	0 - 5 A	1	–	AC current monitor	**1 993.00**
D3CMA2-5-240A	240 VAC	0 - 5 A	2	–	AC current monitor	**2 097.00**
D3CMD2-T-240A	240 VAC	0 - 5 A	2	yes	AC current monitor	**2 427.00**
0 - 10V re-transmit available on request.						
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)*						
				sensor		
D3TC1-240A	240 VAC	-30 to 105°C	1	TS3 probe	temperature controller	**1 646.00**
D3TC2-240A	240 VAC	-30 to 105°C	2	TS3 probe	temperature controller	**1 745.00**
D3TCT1-240A	240 VAC	-30 to 105°C	1	TS3 probe	temp contr. & 24hr timer	**1 840.00**
TS3	temperature probe for above controllers				*(3 meter cable)*	**300.00**
D3HTC1-240A	240 VAC	-50°C to 440°C	1	PT100	temperature controller	**1 712.00**
D3HTC2-240A	240 VAC	-50°C to 440°C	2	PT100	temperature controller	**1 814.00**
D3HTC2-T-240A	240 VAC	-50°C to 440°C	2	PT100	temperature controller	**2 142.00**
D3HTC1-T-240A	240 VAC	-50°C to 440°C	1	PT100	temperature controller	**2 044.00**
D3HTCT1-240A	240 VAC	-50°C to 440°C	1	PT100	temp controller & 24hr timer	**1 890.00**
D3RTC1-240A	240 VAC	-50°C to 440°C	1	PT100	ramp temperature controller	**1 687.00**
D3TTC1-240A	240 VAC	-50 to 1320°C	1	thermocouple	temperature controller	**1 742.00**
D3TTC1-024AD	24V AC/DC	-50 to 1320°C	1	thermocouple	temperature controller	**2 056.00**
D3TTC2-T-240A	240 VAC	-50 to 1320°C	2	thermocouple	temperature controller	**2 171.00**
* *Other voltage options available on request.*						**+ 15%**


D3TC1


D3LM

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.

type	supply voltage*	range	relays	with 4-20mA	description	price
D3LM1-240A	240 VAC	0/4 - 20mA	1	–	loop monitor	**1 789.00**
D3LM1-P-240A	240 VAC	0/4 - 20mA	1	24 VDC PS	loop monitor	**2 070.00**
D3LM1-T-240A	240 VAC	0/4 - 20mA	1	yes	loop monitor	**2 121.00**
D3LM2-240A	240 VAC	0/4 - 20mA	2	–	loop monitor	**1 892.00**
D3LM2-P-240A	240 VAC	0/4 - 20mA	2	24 VDC PS	loop monitor	**2 172.00**
D3LM2-T-240A	240 VAC	0/4 - 20mA	2	–	loop monitor	**2 223.00**
D3SM2-10-T-240A	240 VAC	0 - 10V**	2	yes	loop monitor	**2 223.00**

0-10V re-transmit output available on request

** *Available with a 0-5V or 10K potentiometer input*

Humidity temperature controllers

D3HUM1-240A	240 VAC	0-100%	1		humidity controller	**1 624.00**
HS4	–		–		humidity controller probe *(3m length)*	**647.00**

new


D3HUM1

D4 series - DIN mount - Single line 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.

D4MFT1-240A	1sec - 9999 hrs	1	–	multi-function timer	**1 937.00**
D4RHM1-240A	1sec - 9999 hrs	1	–	running hour meter	**1 917.00**
D4CNT1-240A	4 or 8 digit mode	1	–	counter / freq. monitor	**1 892.00**

Current monitors (DIN rail mount)

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

D4CMA2-5-240A	240 VAC	1 - 5A	2	–	AC current monitor	**2 096.00**
D4CMA2-5-400A	400 VAC	1 - 5A	2	–	AC current monitor	**2 096.00**

Voltage indicator / monitor (DIN rail mount)

Monitors and displays true RMS single or three phase supply voltages.

D4VM31N-400A	400 VAC	0 - 500V (3ph)	1	–	voltage & freq. monitor	**2 122.00**
D4VM32-400A	400 VAC	300 - 500V (3ph)	2	–	voltage & freq. monitor	**2 223.00**
D4VM32N-400A	400 VAC	300 - 500V (3ph)	2	–	voltage & freq. monitor	**2 223.00**

(N) *software selectable neutral monitoring as well.*

Temperature controllers

Monitors and displays temperature using various temperature sensors.

D4HTC1-230A	230 VAC	-50 to 440°C	1	PT100	temperature controller	**1 688.00**
D4HTC2-230A	230 VAC	-50 to 440°C	2	PT100	temperature controller	**1 790.00**

Signal indicators / monitors – 4 - 20 mA LOOP

D4LM2-024D	24 VDC	0 /4 - 20mA	2	–	loop monitor	**2 206.00**
D4LM2-240A	240 VAC	0 /4 - 20mA	2	–	loop monitor	**1 892.00**

RPM / pulses per hour

Monitors and displays speed (RPM) relay remains energised while monitored speed is within pre-set parameters.

D4RPM2-240A	240 VAC	0 - 9999	2	–	RPM monitor	**1 892.00**


D4CMA

* *Other voltage options available on request.* **+ 15%**

Above prices do not include VAT. E&OE

Notes


0 mm
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200



Panasonic Huba Control REER MATIC Lovato electric