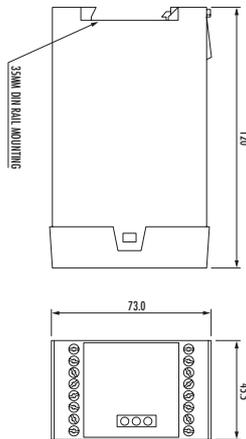


Two Hand Control Monitoring Relay 'MSR7R'

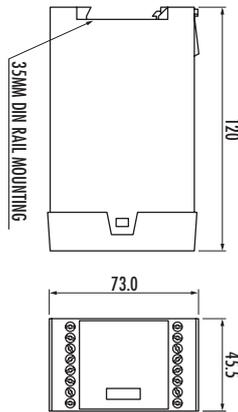


The MSR7R 'Minotaur' is a two hand control device that monitors the input from two pushbuttons, sited so that each button must be operated by each hand. For operation to start, the buttons must be pressed simultaneously (within 0.5 seconds) and held in until the machine has run down. The units will detect any single safety critical fault occurring internally or on the output circuits, and will initiate lock-out to a safe state. Suitable for use with the 'Protakta' two hand control unit.

Power supply	24V AC/DC
X1-X2 contactor	Wired N/C from contactor auxiliaries
Switching capacity	4A at 250VAC, 2A at 30VDC
Relay outputs	3 N/O (safety), 1 N/C (auxiliary)
Safety input	2 x 2 pole (1 N/C + 1 N/O) hand buttons
Temperature	-10°C to +55°C
LED indication	Red (power), Green x 2 (outputs closed)
Fixings	35 mm din rail mounting
Approvals	UL, BG

Stock No.	Manf Ref ¹	Type	Unit Price		
			1-4	5-9	10-24
5106045	440R-D23021	24V AC/DC	132.00	128.70	125.40

Failsafe Timing Relay 'CU1'

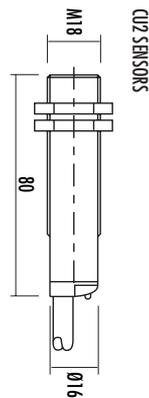
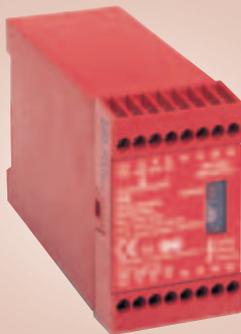


The CU1 is a timing-down unit which initiates when power is applied. Once initiated by a machine stop command, the unit times down to its adjustable pre-set delay and then signals the guard locking switch, allowing the guard to be opened. Incorporates adjustable timing from 0.1 sec to 40 min. An optional CU1 remote indication unit to indicate the status of the circuit can be connected to the CU1's R1, R2 and R3 connections.

Power supply	24V AC/DC & 110/230V AC
X1-X2 contactor	Wired N/C from contactor auxiliaries
Switching capacity	4A at 250VAC, 2A at 30VDC
Relay outputs	2 N/O (safety), 1 N/C (auxiliary)
Temperature	-10°C to +55°C
LED indication	Red (power), Red (timing), Green (output)
Fixings	35 mm din rail mounting
Approvals	UL

Stock No.	Manf Ref ¹	Type	Unit Price		
			1-4	5-9	10-24
5105475	440R-T07114	24/110/230V	182.00	177.45	172.90
5105484	440R-A07138	REMOTE IND.	29.00	28.28	27.55

Failsafe Timing Relay 'CU2'

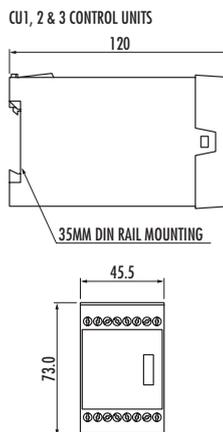


The CU2 is a timing and stop motion detector unit. By utilising two independent sensor inputs which monitor the movement of two metal parts, the unit accurately detects when hazardous motion has ceased. The CU2 then signals the guard locking switch to allow the guard to be opened. Incorporates adjustable timing from 0.1 sec to 40 min. The unit is available in two voltage versions and both are supplied with PNP & NPN inductive sensors.

Power supply	24V AC/DC or 110/230V AC (selectable)
Inputs	PNP & NPN inductive sensors
Switching capacity	4A at 250VAC, 2A at 30VDC
Relay outputs	2 N/O (safety), 1 N/C (auxiliary)
Temperature	-10°C to +55°C
LED indication	Red (power), Red (timing), Green (output)
Fixings	35 mm din rail mounting
Approvals	UL

Stock No.	Manf Ref ¹	Type	Unit Price		
			1-4	5-9	10-24
5105535	440R-S07281	24V AC/DC	174.00	169.65	165.30
5105538	440R-S07282	110/230VAC	174.00	169.65	165.30

Failsafe Timing Relay 'CU3'



The CU3 is a timing and stop motion detector unit which detects motion of single or three phase motors by measuring the back electromagnetic field (emf) of the motor. When the level of emf reaches the set value, a signal is sent to the guard locking switch allowing the guard to be opened. Incorporates a variable resistor which is adjustable to alter the unit's sensitivity. Available in three voltage versions.

Power supply	24V AC/DC or 110V AC or 230V AC
X1-X2 contactor	Wired N/C from contactor auxiliaries
Switching capacity	4A at 250VAC, 2A at 30VDC
Relay outputs	2 N/O (safety), 1 N/C (auxiliary)
Temperature	-10°C to +55°C
LED indication	Red 1 (power), Green (motor stopped) Amber (fault), Red 2 (motor running)
Fixings	35 mm din rail mounting
Approvals	UL

Stock No.	Manf Ref ¹	Type	Unit Price		
			1-4	5-9	10-24
5106522	440R-S35001	24V AC/DC	174.00	169.65	165.30
5106525	440R-S35002	110VAC	178.00	173.55	169.10
5106528	440R-S35003	230VAC	178.00	173.55	169.10