

DUAL TRIP AMPLIFIER



- 2 adjustable alarm levels
- 500 VA relay contacts
- Programmable input
- Programmable functions
- 24 VDC supply
- For mounting in 11-pole relay socket



Applications:

Alarm detector or controller in connexion with DC current or voltage signals. ● The alarm detector can be installed in PELV or SELV circuits.

Technical characteristics:

Current or voltage as standard signals.
 Programmable via internal dipswitches.
 All signals are referred to supply ground.
 Standard input voltage: See table.
 Input resistance: Typ. 10 MΩ.
 Standard input current: See table.
 Input resistance: Nom. 50 Ω.
 Special input signals according to order (see common specifications).

Setpoint:

Potentiometers for alarm level adjustment are front panel mounted and covers the entire input range (scale 0...100%).
 The alarm detector has relay outputs with two uncommitted make-break contacts available. Selection between make and break function is made with internal jumpers. The relays may be programmed to activate in case of a decreasing or an increasing input signal.
 By increasing function the hysteresis is below the setpoint, by decreasing above.
 The programming options include a 'hold'-function where relay 2 latches when the upper alarm level is reached.
 The latch is released by relay 1 when the lower alarm level is reached.
 Furthermore, a 'failsafe' function may be selected, where the relays are deactivated on a decreasing relay function, when the input signal is < 2% of the measurement range.
 LEDs in the cassette front plate indicate activated relays.

Electrical specifications :

Specifications range:

(@ -20°C to +60°C)

Common specifications:

Supply voltage.....	24 VDC ±20%
Internal consumption	1.2 W (relays ON)
Isolation, test / operation	3.75 kVAC / 250 VAC
Scale accuracy	better than 5%
Repetition accuracy	better than 0.5%
Hysteresis.....	1% standard
Response time	typ. 80 ms
Temperature coefficient.....	< ±0.01% of span/°C
EMC immunity influence	< 1%
Relative humidity	< 95% RH (non-cond.)
Dimensions (HxWxD).....	80.5 x 35.5 x 84.5 mm
Tightness.....	IP50
Weight	125 g

Input:

Max. measurement range	50 mA / 24 VDC
Min. measurement range (span).....	0.8 mA / 800 mVDC
Max. offset.....	20%
Input resistance, current.....	50 Ω
Input resistance, voltage	nom. 10 MΩ

Relay output:

Max. voltage.....	250 VRMS
Max. current	2 A / AC
Max. AC power.....	500 VA
Max. load at 24 VDC	1 A

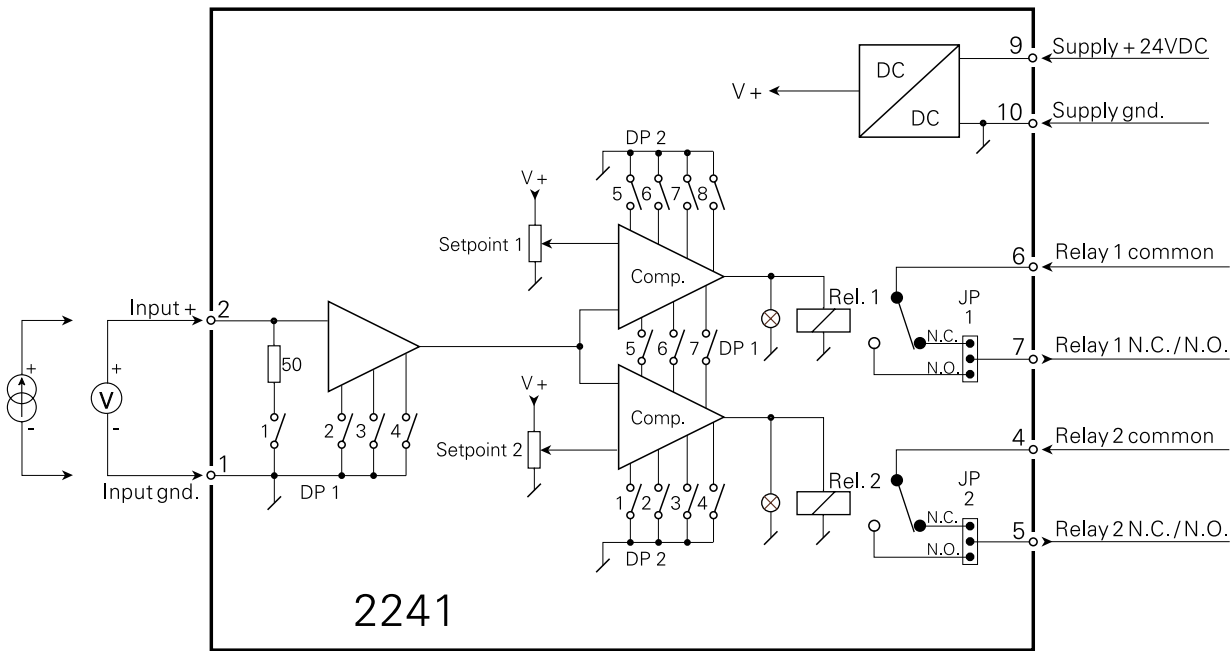
Observed authority requirements: Standard:

EMC 89/336/EEC, Emission	EN 50 081-1, EN 50 081-2
Immunity	EN 50 082-2, EN 50 082-1
Emission and immunity.....	EN 61 326
LVD 73/23/EEC.....	EN 61 010-1
PELV/SELV	IEC 364-4-41 and EN 60 742

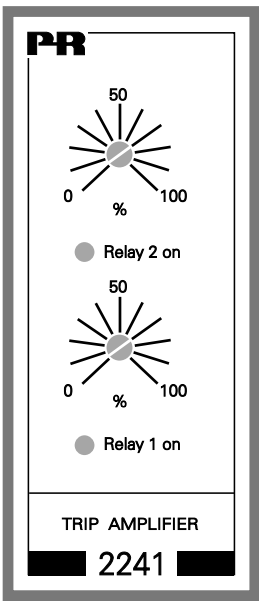
NB: Of span = Of the presently selected range

Type	Input	Output	Setpoint	Relay
2241	0...20 mA : A	2 x active at increasing input : 1	Setp. notch opr. : A	Rel. 1 N.O., Rel. 2 N.O. : 1
	4...20 mA : B	2 x active at decreasing input : 2	Setp. knob opr. : B	Rel. 1 N.O., Rel. 2 N.C. : 2
	0...1 V : C	Active at decreasing input 1 and at increasing input 2 : 3		Rel. 1 N.C., Rel. 2 N.O. : 3
	0.2...1 V : D			Rel. 1 N.C., Rel. 2 N.C. : 4
	0...10 V : E	Active at decreasing input 2 and at increasing input 1 : 4		
	spec. : X	Hold relay 2 : 5		

Block diagram:



Front layout:



Programming:

Jumper position	
JP1 N.O.	Rel. 1 normally open
JP1 N.C.	Rel. 1 normally closed
JP2 N.O.	Rel. 2 normally open
JP2 N.C.	Rel. 2 normally closed

Input and function	DP1 ON	DP2 ON
0...20 mA	1, 2	
4...20 mA	1, 3	
0...1 V	2	
0.2...1 V	3	
0...10 V	2, 4	
2...10 V	3, 4	
Active relay 1 at:		
Increasing input signal		5, 7
Decreasing input signal		6, 8
Active relay 2 at:		
Increasing input signal		1, 3
Decreasing input signal		2, 4
Rel. 2 hold	5	
Rel. 1 failsafe	7	
Rel. 2 failsafe	6	

For safe operation, all other switches must be OFF.