

# Programmable universal digital display Type M2229

## Input signals:

M2229-A

Current/Voltage

M2229-T

Temperature sensor

## Optional input signals:

pH

Conductivity

Frequency



## Technical description

The digital display M2229 is used to check or control any type of signal current or voltage. It converts the input signal to an internal standard signal of for example 0 to 100.0%. In this range two alarm contacts can be set independently. A 4-digit LED display shows the actual value and setpoints or alarm values in the range of -1999 to 9999 units.

All settings as alarm values, hysteresis, range and operating mode of the floating contacts can be set with a link cable, connected to a personal computer or a laptop.

Both alarm contacts can also be programmed with tiny push button switches.

A typical application would be to measure and monitor pressure in a process vessel. The pressure transmitter converts the pressure of 1 to 10 bar to a current signal of 4 to 20mA. The M2229 monitors under and overpressure in the vessel. It converts the 4... 20mA signal current to 0...100.0%. The alarm is set between 0% (=1 bar) and 100.0% (=10 bar). With these floating alarm contacts, overpressure valves, compressors, etc. are driven directly.

Optionally, a galvanic isolated output signal of 0...20mA or 4...20mA is available.

Power supply:

Universal supply 20 to 253VAC/DC

# Technical Data:

**Input signal:** M2229-A: 0/4...20mA/0...1V and 10V, programmable  
 M2229-T: Platinum-/nickel, with 100,200,500 or 1000Ω at 0°C (DIN 43 760),  
 in 2- or 3-wire connection  
**Input load / impedance:** current signal=51Ω, voltage signal=1MΩ  
**2-Wire transmitter supply:** 24VDC max. 25mA  
**Display:** 4-digit, LED red, 14.2 mm  
**Display range:** -1999...9999  
**Accuracy:** ±0.1% at 23°C ambient temperature  
**Reproducibility:** ±0.1%  
**Temperature coefficient:** zero drift: 30ppM/°C typical,  
 gain drift: 25ppM/°C typical  
**Long-term stability:** ±0.1%  
**Working temperature range:** -5 to +45°C  
**Maximum humidity:** 95%, non-condensing  
**Range adjustment:** by computer programmable, see manual  
**Zero-/Gain adjustment:** by computer programmable, see manual  
**Option alarm contacts:** two, adjustable between 0,0 and 100,0%  
**Hysteresis:** by computer programmable, factory set: ±5 digit, see manual  
**Contacts:** floating change over contacts  
**Max. contact load:** 1A/230V resistive  
**Change alarm contacts:** by button switches or computer programmable, see manual  
**Display alarm contacts:** by button switches or computer programmable, see manual  
**Mode of the alarm contacts:** with two red LED-Lamps  
**Display unit:** with one red LED-Lamp  
**Option signal output:** 0/4...20mA, galvanically isolated  
**Max. load:** 500Ω  
**Output impedance:** >1MΩ typical  
**Power supply:** 20 to 253VAC or DC  
**Power supply load:** 4.5 to 7.0W at 230VAC  
**CE-conformity:** fulfilled  
**Terminals:** plug-in screw terminals  
**Terminal description:**

1 = supply voltage: AC~/DC(+)	2 = supply voltage: AC~/DC(-)
3 = supply voltage: PE	4 = signal output (+)
5 = signal output (-)	6 = signal output PE
7 = not used	8 = 2-Wire transmitter supply +24V
9 = signal input (-) / Sensor (-)	10 = signal input voltage (+) / Sensor (+)
11 = signal input current (+) / Sensor (-) Sense	13 = alarm contact 1, c.o. contact
12 = alarm contact 1, n.o. contact	15 = alarm contact 2, n.o. contact
14 = alarm contact 1, n.c. contact	17 = alarm contact 2, n.c. contact
16 = alarm contact 2, c.o. contact	

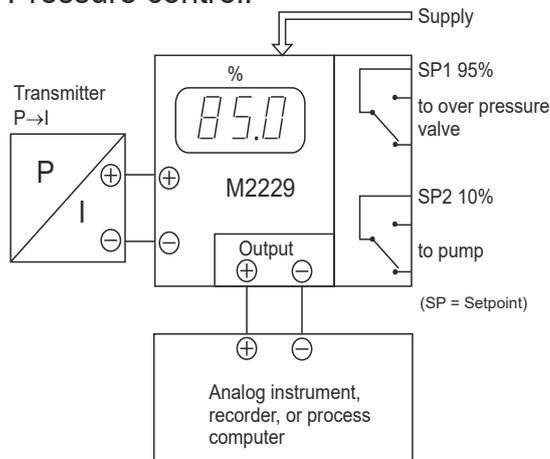
**Mounting:** 2 mounting clamps  
**Weight:** 200g  
**Warranty:** 2 years  
**Options:** - USB programming unit for MOSTEC devices with cable and software  
 - Other input signal

**How to order example 1:** M2229-ARS (A= input for current/voltage, R= alarm contacts, S= signal output),  
 input 4...20mA, display 50...100,0%, SP1=2,00bar, SP2=9,50bar, hysteresis ±2digit,  
 current output: 50...100,0% = 0...20mA

**How to order example 2:** M2229-T (T= input for temperature)

c.o.= change over  
 n.o.= normally open  
 n.c.= normally closed

## Pressure control:



## Dimensions (mm):

