# Measuring Amplifier
# MV 20

## Function:

The **MV20** buffer amplifier converts all physical variables such as temperature, humidity, pressure, ph values, etc. into electrical signals. The compact construction and pluggable screw terminals enable space-saving assembly in the switching cabinet. The unit is available with snap-in holders for top-hat rails.

## Technical Data:

**Construction:**
Black plastic housing for snapping onto top-hat rail

**Dimensions:**
48 x 96 x 150 mm (wxhxd)

**Connection:**
Connector with screw terminal
Wire cross section: max. 2.5 mm

**Auxiliary voltage:**
115 or 230 Vac +-10%/50-60 Hz, approx. 4 VA

**Input:**
- mV, uA, mA (also alternating quantities)
- various thermoelements and resistance thermometers
- resistance variables

**Output:**
Short-circuit-proof voltage output
0...10 V or according to customer specification (e.g. -10...0...+10V), max. 5 mA or current output with active current limiting 0(4)...20 mA, load max. 550 ohm (=11 V at 20 mA)

**Note:**
Only voltage values can be output if a thermo-element input is linearized!

**Climate:**
Storage: -10...+70 °C
Operation: 0...+50 °C

**Accuracy:**
- <=0.1% of final value +/-1 digit
  at input voltage DC, current DC, resistance, Pt
  100, remote transmitter
- <=0.2% of final value +/-1 digit
  at input voltage AC, current AC, frequency,
  thermoelement type "K" and "S" (in the range >
  200 °C), reciprocal formation
- <=0.3% of final value +/- 1 digit
  at input thermoelement type "J" and "L"

**Temperature influence:**
<0.1%/10 K

**Other features:**
- active 2nd order filter for effective disturbance
  signal suppression; mains frequency (50/60 Hz) is
  reduced by 70 dB
- end value (maybe zero or power adjustment)
  adjustable by spindle potentiometer.

**Options:**
- integrated shearing pin and compensating device
in thermoelement input
- linearization of thermoelements and Pt 100
  resistance thermometers
- ac voltage and ac measurement by active
  rectifiers
- magnifying function (e.g. 0...20 mA = 800...1200 °C)
- frequency output
- impulse output (e.g. for counters)

All spezifications subject to change without prior