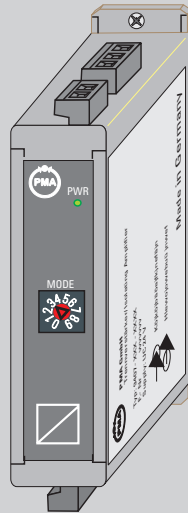




Isolating Amplifier TVS

For standard signals



Input- and output signal selectable without adjustment

Snap-on housing in compact technology

Comprehensive galvanical separation

GENERAL

The DC isolating amplifier TVS isolates and transforms standard current or voltage signals. It is used to separate electrical circuitries to avoid interferences. The transforming function is selectable via range selectors in the front panel. The output signal is selected via function keys after removing the mounting plate.

DESCRIPTION

The input signal is measured by the input amplifier and transferred after processing by a microcontroller according to its transfer function via an optocoupler to the output amplifier. Here the signal will be amplified and is provided as standard signal (current / voltage) at the output. By means of the range switch the transfer function is selectable for [0(4)...20 mA resp. 0(2)...10 V/0(4)...20 mA resp. 0(2)...10 V]. The different characteristics are stored within the microcontroller, so additional adjustment is not necessary. The comprehensive galvanical isolation provides complete separation between input and output circuitry and supply.

TECHNICAL DATA

INPUT

Input signal: Current: 0(4)...20 mA
Voltage: 0(2)...10 V

Input resistance: Current: $\leq 60 \Omega$
Voltage: $\geq 1 M\Omega$

Max. input current: $\leq 30 \text{ mA}$
Max. input voltage: $\leq 15 \text{ V}$

OUTPUT

Output signal: current 0(4)...20 mA
voltage 0(2)...10 V

Characteristic: rising, linear
Conformity error: $\leq 0,1 \%$

Load: with current: $\leq 750 \Omega$
with voltage: $\geq 2 \text{ k}\Omega$

Signal limitation: current $\leq 30 \text{ mA}$
voltage $\leq 0(2)...10 \text{ V}$

Output characteristic

at short circuit in input or open input

OUTPUT		IN	CHARACTERISTIC	
'I'	'U'	U/I	'I' [mA]	'U' [V]
LZ	LZ	LZ	3,4...3,6	1,7...1,8
LZ	LZ	DZ	4	2
DZ	DZ	DZ/LZ	0	0

LZ = life zero; DZ = zero

Dynamical response

Time constant T_{90} : 150 ms

SUPPLY

Universal current: 24 VUC SELV*
AC 24 V $\pm 15 \%$, 47...63 Hz
DC 18...32 V

Alternating current: 95...250 VAC, 47...63 Hz

Power consumption at nominal voltage

DC: 1,7 W
AC: 2,5 VA

Effect of supply: $\leq 0,05 \%$ / 10 %

Permissible ripple (with DC): U_{PP} 2,5 V
(within the permissible supply tolerances)

ELECTRICAL SAFETY

Galvanical isolation

between supply and output
supply and input
input and output

Usable voltage to DIN EN 60 010
at 24 V AC 50 V
at 230 V AC 250 V
input versus output AC 50 V

Contamination class 2
Overvoltage category II

Test voltage at 230 V AC 2,3 kV
Test voltage at 24 V AC 500 V
Input versus output AC 500 V

* SELV = Safe extra low voltage

ENVIRONMENTAL CONDITIONS

Permissible temperatures

Nominal temperature: -20...+65 °C

For operation: -25...+70 °C

Transport and storage: -40...+85 °C

ELECTROMAGNETIC COMPATIBILITY

Complies with

DIN EN 50 081-2, DIN EN 50 082-2 and

Low voltage directive DIN EN 61 010 CE-marking

EXPLOSION PROTECTION

None

GENERAL

Housing material: PC/GF 25

Protection mode: IP 20

Electrical connection:

Plug-In screw terminals for max. 2,5 mm²

Weight: 0,2 kg

ACCESSORIES

Instructions 9499 040 55601

Plug-In screw terminals

MOUNTING

Rail 35 mm to DIN EN 50 022

ORDERING DATA

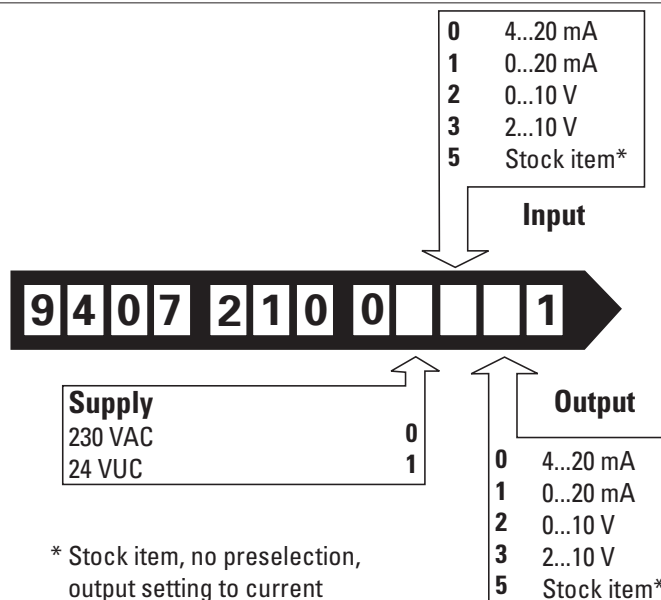
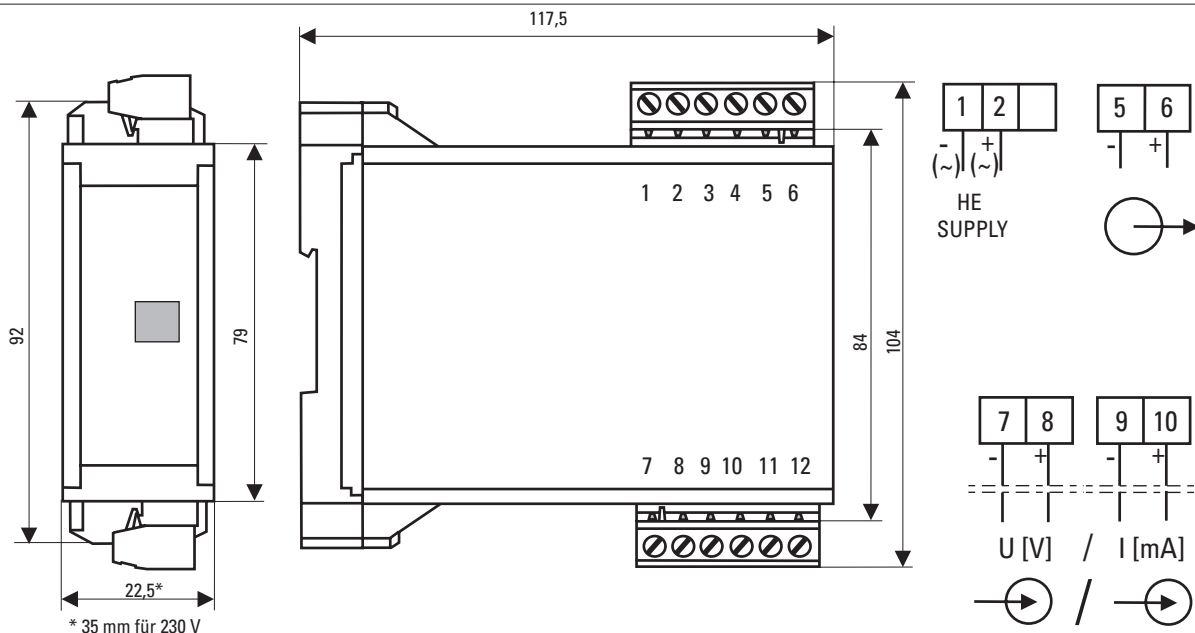


Fig. 1 Dimensions and electrical connections



Deutschland

PMA Prozess- und Maschinen- Automation GmbH
Miramstrasse 87, D-34123 Kassel

Tel./Fax: (0561) 505 - 1307/-1710
E-mail: mailbox@pma-online.de
Internet: <http://www.pma-online.de>

Your local distributor