

ARA5030*- ATEX POWER SUPPLY / REPEATER

The device, for mounting on DIN rail, performs the function of Intrinsically Safe Barrier with galvanic separation, for protection II (1) G [Ex ia Ga] IIC and II (1) D [Ex ia Da] IIIC. 0-20 or 4-20 mA current signals input, passively or actively, providing an auxiliary power output to supply the current loop to the hazardous zone (ZONE 0). The output circuit is able to convert the measurement into a voltage signal in the range 0-10V or 2-10V or in current 0-20mA or 4-20mA. Equipped with auxiliary power supply terminal to power the converter or the current loop connected to the output. Setting via dip-switches accessible on the side of the container. The device is calibrated by means of two potentiometers (ZERO and SPAN) placed also on the enclosure side. 3-way insulation: the input (connected to devices placed in a dangerous place) is insulated at 2000 Vac from the power supply and from the outlet (connections to the non-dangerous place); moreover, power supply and output are isolated from each other at 1500 Vac. Power supply 20-30 Vdc. A green LED indicates the correct power supply of the device.

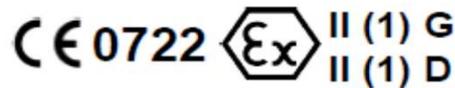


Versions

ARA5030-1 single channel

ARA5030-2 double-channel, isolated from each other and with independent programming and calibration; by connecting the two inputs series, a signal duplicator is obtained.

*H Option = HART communication



TECHNICAL SPECIFICATIONS

Input:	Loop di corrente attivo o passivo
Range:	0-20, 4-20 mA selectable
Zero and Span adjustment:	+/-5%
Auxiliary power supply:	>15V @ 20 mA
Input Impedance:	<25 Ohm
Output:	configurable 0-20, 4-20 mA, 0-10V and 2-10V
Load resistance:	Voltage > 5 kOhm, Current <500 Ohm
Output aux supply:	>12V @ 20 mA
Power supply:	20-30Vdc
Current consumption:	80 mA per channel with V aux active
Reverse polarity protection:	60 Vdc max
Calibration error:	+/- 0,1% f.s.
Linearity error:	+/-0,2% f.s.
Thermal drift:	0.02% f.s./°C
Response time:	<0.2 sec
Frequency response:	HART 3 dB from 0.5 to 4 kHz bidirectional
Insulation:	Input/Output 2000 Vca@ 50 Hz, 1 min Input/supply 2000 Vca@ 50 Hz, 1 min supply/output 1500 Vca@50 Hz, 1 min between channels 2000 Vca@50 Hz, 1 min
EMC:	EN61000-6-2, EN61000-6-4
Temperature:	working -20...+60°C, storage -40...+85°C
Relative humidity:	0-90% RH without condensation
Weight:	ARA5030-1 gr. 100, ARA5030-2 gr. 160 approximately

Dati di targa:

Terminals J-I; A-B-C-D; O-P-Q-R :	
Um = 250 V	
Terminals 4-6; 14-16:	
Uo = 26.4 V	Ui = 30 V
Io = 93 mA	Ii = 100 mA
Po = 615 mW	Pi = 0.75 W
Lo = 4.2 mH	Li = ~ 0 mH
Co = 75 nF	Ci = 12 nF
Terminals 6-5; 16-15:	
Uo = 1.2 V	Ui = 30 V
Io = 46 mA	Ii = 100 mA
Po = 14 mW	Pi = 0.75 W
	Li = ~ 0 mH
	Ci = 12 nF
Ta : -20 ÷ +60 °C	



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