



Easy to install

AD424



Ex barrier module for probe connection to FuelCom

The AD424 module is a 4 channel intrinsically safe galvanic isolated input module for FuelCom®. The module has a high precision A/D converter which is scanning the 4 analogue channels on a time multiplexed scheme. Each 4-20 mA input signal is converted to a digital signal with a resolution of 16 bits, and presented on a RS485 local bus format.

The AD424 module is manufactured in accordance with EN50020, EN50014 and EN60079 (ATEX), and is intended for powering intrinsically safe sensors placed in hazardous areas. The module must be placed in the safe zone.

The module is compatible with FuelBar® and MiniBar® probes. One module connects to 2 probes. Monitoring LEDs on the front. Cable connection with screw terminals (AWG 24-14). The FuelBar® probe measures pressure as well as temperature and water indication (on/off).

We make it easy.



Product ID:	AD424 Module
Operating voltage:	5VDC/ 12VDC (fed from FuelCom)
Output voltage to probes:	24VDC
Input signal range:	4-20 mA current loop
Number of analogue channels:	4
A/D converter:	16 bits
Precision:	Linearity: +/- 0,01%
	Accuracy: +/- 0,2%
Communication:	RS485 max 9600 b/s
Environment:	-20 - +55°C, indoor
Outdoor operation:	With FuelCom in approved cabinet (optional)
Certification:	ATEX
Ex category:	Ex [EEx ia] II B
Gas group:	II (1)G
Safety limits:	Voltage: U _o =24,74V
	Current: I _o = 90mA
	Power: P _o =0,65W
II B	Capacitance C _o < 0,86 µF
	Inductance L _o < 15mH
Preferred ext. probe:	MiniBar® FuelBar®





Product:	AD424 Intrinsically safe galvanic isolated 4-20 mA input module
Communication standard:	RS485 BUS, full duplex, 9600b/s, L<1200m, max 32 stations
Environment:	-20 to +55 °C Indoor. (IP20)
Dimensions (W x H x D):	Approx: 10 x 10 x 2 cm.
Installation:	Inside FuelCom slot
Alternative:	PA-VO green housing for DIN rail mount
CE	EN 50014, EN50020, EN 60079 - II
Power supply (From FuelCom):	12V DC +/- 5% 200mA, 5VDC +/-5% 30mA, 2,2W total
Power supply for feed devices:	$U_i > 13,5V$ DC @ 20mA ($U_o = 24,74V$)
Number of channels:	4
Signal range:	4-20mA
Resolution	16 bit
Linearity:	0,01%
Accuracy:	+/- 0,2%
Temperature coefficient:	0,01% / °C
Response time.	10Hz/ number of channels
Input/ output side isolation barrier safe side:	6 kV
ATEX notification body number:	0470 Nemko
Explosion category:	[EEx ia] IIC (Ta= -20 - +55 °C)
Gas group:	II 1G
EC type Examination certificate:	DNV-2000-ATEX-OSL-0244
Safety limits:	$U_o = 24,74V$, $I_o = 90$ mA, $P_o = 0,65W$
Max. permissible connected inductance:	IIA: $L_o = 30mH$, IIB: $L_o = 15mH$, IIC: $L_o = 4mH$
Max permissible connected capacitance:	IIA: $C_o = 3.05\mu F$, IIB: $C_o = 860nF$, IIC: $C_o = 113nF$
User accessible keys:	Setting tank number by DIL switch. (binary coded)
Connection:	Screw terminals, wire data: AWG14-AWG24. (0,25-2,0mm ²)

