



- Eight channels can be used individually as inputs or outputs
- Intrinsically safe Ex ia IIC inputs/outputs with line fault monitoring
- Module in Zone 2, Cl. I, II, Div. 2 can be hot swapped

06 b

WebCode **9468B**



The 9468/33 series HART Analog Universal Module for Zone 2, Cl. I, II, Div. 2 has eight channels that can be used individually for Ex i operating two-/three-conductor HART transmitters, four-conductor transmitters or control valves/positioners with 0/4 to 20 mA signals. HART communication is bidirectional. All inputs/outputs are short-circuit proof, galvanically separated from the system and individually monitored to check for line faults.

	NEC® 500 CEC Appendix J					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Ex interface	•	•	•	•	•	•
Installation in		•		•		•




	CEC Section 18					
	NEC® 505 Class I			NEC® 506		
Zone	0	1	2	20	21	22
Ex interface	•	•	•	•	•	•
Installation in			•			•


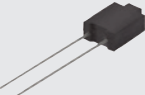
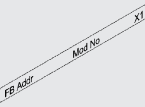



	IECEX / ATEX					
	Zone	0	1	2	20	21
Ex interface	•	•	•	•	•	•
Installation in			•			•

Selection Table					
Installation	Zone 2, Zone 22, Cl. I, II, Div. 2 and in the safe area				
Number of channels	Product Type			Art. No.	Weight lb
8 Ex i inputs/outputs	9468/33-08-10			210660	0.61
Please order terminals separately - see accessories and spare parts.					

Technical Data	
Explosion Protection	
Certificate FMus	FM17US0332X
Certificate cFM	FM16CA0134X
Marking FMus	NI, Class I,II,III, Div. 2, Groups A,B,C,D,E,F,G; AIS, Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 2, AEx nA ia [ia] IIC; T4 at Ta = 75 °C; See Doc. 9468 6 031 002 1
Marking cFM	NI, Class I,II,III, Div. 2, Groups A,B,C,D,E,F,G; AIS, Class I,II,III, Div. 1, Groups A,B,C,D,E,F,G; Class I, Zone 2, Ex nA ia [ia] IIC; T4 at Ta = 75 °C; See Doc. 9468 6 031 002 1
IECEX gas explosion protection	Ex nA ia [ia Ga] IIC T4 Gc
IECEX dust explosion protection	[Ex ia Da] IIIC
Certificates	ATEX (DEK), Brazil (ULB), Canada (FM), EAC (STV), IECEX (DEK), India (PESO), Korea (KTL), Russia (Meteorological certificate), USA (FM)
Ship approval	DNVGL, RINA
Safety Data	
Max. voltage U _{J/V_{cc}}	24.4 V

Technical Data	
Safety Data	
Max. current I _o (2-conductor)	80 mA
Max. current I _o (3-conductor)	81.8 mA
Max. power P _o (2-conductor)	488 mW
Max. power P _o (3-conductor)	499 mW
Electrical Data	
Number of channels	8 Ex i inputs/outputs
Channels	each with adjustable parameters as input or output (3-wire, 4-wire transmitters, or active mA-sources occupy 2 channels)
Nominal signal	4 ... 20 mA 0 ... 20 mA
Supply voltage	16 V, at 20 mA for 2-wire transmitters
Communication signal	HART protocol
Connection Ex i field signals	Pluggable, blue terminals, 16-pole, 2.5 mm ² , screw- or spring-type versions with lock
Notes	In order to operate an active 4-wire HART transmitter, a 9164 must be connected between each channel. 9164 is not required when operating 4-wire transmitter without HART communication.
Auxiliary Power	
Current consumption	220 mA (at 20 mA per channel)
Max. power consumption	5.3 W (at 20 mA / channel)
Max. power dissipation outputs	3.7 W (at 20 mA, 500 Ω / channel)
Max. power dissipation inputs	2.7 W (at 20 mA / channel)
Input	
Max. input resistance	14.1 Ω per channel
Output	
Output load resistance max.	750 Ω at 20 mA 700 Ω at 21.8 mA
Output step response (10 ... 90 %)	40 ms
Ambient Conditions	
Ambient temperature °F	-40°F ... +167°F Observe operating instructions
Ambient temperature °C	-40 °C ... +75 °C Observe operating instructions
Mechanical Data	
Degree of protection IP (IEC 60529)	IP20

Accessories				
Figure	Description	Product Type	Art. No.	Weight lb
Pluggable terminal				
	2.5 mm ² with lock, 16-pole, screw connector, blue, for connecting the field signals to I/O modules, for intrinsically safe field circuits Labelling: 1 ... 16 Attention: An additional terminal is necessary for I/O module Series 9470 and 9482. Labelling: 17 ... 32	-	162702 ▲	0.06
	2.5 mm ² with lock, 16-pole, spring clamp connection, blue, for connecting the field signals to I/O modules, for intrinsically safe field circuits, incl. test jacks Labelling: 1 ... 16 Attention: An additional terminal is necessary for I/O module Series 9470 and 9482. Labelling: 17 ... 32	-	162695	0.06
mA-Isolating repeater				
	The mA isolating repeaters are used for the connection of 4-wire transmitters to active 2-wire inputs and for the galvanic separation. Input: sink, Ex e Output: sink, Ex i	9164/13-20-06	224365	0.31

Accessories				
Figure	Description	Product Type	Art. No.	Weight lb
mA-Isolating repeater				
	The mA isolating repeaters are used for the connection of 4-wire transmitters to active 2-wire inputs and for the galvanic separation. Input: sink, Ex i Output: sink, Ex i	9164/13-20-08	224364	0.2
Resistor error message suppression				
	The resistors are used to suppress error messages for unused I/O channels Resistance value: 5K6 / 0.5 W Suitable for: AIM 9468; DIOM 9470; DIOM 9471; DIOM 9472; DOM 9475 For intrinsically safe circuits (simple apparatus according to EN 60079-11)	-	244911	-
	The resistors are used to suppress error messages for unused I/O channels Resistance value: 62R / 0.5 W Suitable for: AOM 9468; TIM 9482	-	244912	-
Labelling strips				
	"FB Addr ... Mod No ..." for pluggable terminal, 26 pieces on the sheet	-	162788	-
DIN A4 sheet				
	For the label plate on I/O modules, 6 labels per sheet Print IS Wizard, packaging unit = 20 sheets	-	162832	-
Warning sign				
	"Clean modules only with a damp cloth."	-	162796	-
Partition				
	For mounting between intrinsically safe and non-intrinsically safe connections of the I/O modules, in order to adhere to the required 50 mm distance	-	220101	0.02

Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations

