



- 8 channels can be used individually as inputs or outputs
- Intrinsically safe Ex ia IIC inputs/outputs with line fault monitoring and an LED fault and status display for each channel
- Module in Zone 1 can be replaced without having to disconnect the power supply (i.e. hot-swapped)

A4

## MY R. STAHL 9468A



The 9468/32 HART analogue universal module for Zone 1 has eight channels which can be used separately for Ex i operation of 2-/3-conductor HART transmitters, 4-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.




	IECEX / ATEX						NEC® 500 CE Code Appendix J						CE Code Section 18 NEC® 505   NEC® 506					
	Class I		Class II		Class III		Class I		Class II		Class III		Class I		Class II		Class III	
<b>Zone</b>	0	1	2	20	21	22	1	2	1	2	1	2	0	1	2	20	21	22
<b>Ex interface</b>	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
<b>Installation in</b>		•	•				•	•						•	•			

Selection Table					
Installation	Zone 1, Zone 2 and safe areas				
Number of channels	Channel status LEDs		Product Type		Art. No.   Weight
8 Ex i inputs/outputs	No		9468/32-08-10		296070   275 g
	Yes		9468/32-08-11		210659   275 g

Please order terminals separately – see accessories and spare parts.

Technical Data		
Variant	9468/32-08-10	9468/32-08-11
<b>Explosion Protection</b>		
IECEX gas explosion protection	Ex ia [ia Ga] IIC T4 Gb	Ex ia [ia Ga] IIC T4 Gb
IECEX dust explosion protection	[Ex ia Da] IIIC	[Ex ia Da] IIIC
ATEX gas explosion protection	⊕ II 2 (1) G Ex ia [ia Ga] IIC T4 Gb	⊕ II 2 (1) G Ex ia [ia Ga] IIC T4 Gb
ATEX dust explosion protection	⊕ II (1) D [Ex ia Da] IIIC	⊕ II (1) D [Ex ia Da] IIIC
Certificates	ATEX (DEK), Brazil (ULB), Canada (FM), China (NEPSI), IECEx (DEK), India (PESO), USA (FM)	ATEX (DEK), Brazil (ULB), Canada (FM), China (NEPSI), IECEx (DEK), India (PESO), Korea (KTL), USA (FM)
Ship approval	ABS, BVIS, EU RO MR (DNV), KR, LR	ABS, BVIS, EU RO MR (DNV), KR, LR
Declaration of Conformity	ATEX (EUK), China (CCC)	ATEX (EUK), China (CCC)
<b>Safety Data</b>		
Max. voltage U <sub>e</sub>	24.4 V	24.4 V
Max. current I <sub>e</sub> (2-conductor)	80 mA	80 mA
Max. current I <sub>e</sub> (3-conductor)	81.8 mA	81.8 mA

Technical Data		
Variant	9468/32-08-10	9468/32-08-11
Safety Data		
Max. power P <sub>s</sub> (2-conductor)	488 mW	488 mW
Max. power P <sub>s</sub> (3-conductor)	499 mW	499 mW
Electrical Data		
Number of channels	8 Ex i inputs/outputs	8 Ex i inputs/outputs
Channels	Each can be configured as input or output (3-conductor, 4-conductor transmitters or active mA sources occupy 2 channels)	Each can be configured as input or output (3-conductor, 4-conductor transmitters or active mA sources occupy 2 channels)
Nominal signal	0 to 20 mA 4 to 20 mA	4 to 20 mA 0 to 20 mA
Supply voltage	16 V	16 V, at 20 mA for 2-conductor transmitters
Communication signal	HART protocol	HART protocol
Connection Ex i field signals	Pluggable, blue terminals, 16-pin, 2.5 mm <sup>2</sup> , screw type or cage clamp version with lock	Pluggable, blue terminals, 16-pin, 2.5 mm <sup>2</sup> , screw type or cage clamp version with lock
Notes	In order to operate an active 4-conductor HART transmitter, a 9164 must be connected between each channel. A 9164 is not required when operating a 4-conductor transmitter without HART communication.	In order to operate an active 4-conductor HART transmitter, a 9164 must be connected between each channel. A 9164 is not required when operating a 4-conductor transmitter without HART communication.
Auxiliary Power		
Current consumption	220 mA (at 20 mA per channel)	220 mA (at 20 mA per channel)
Max. power consumption	5.3 W	5.3 W (at 20 mA/channel)
Max. power dissipation outputs	3.7 W	3.7 W (at 20 mA, 500 Ω/channel)
Max. power dissipation inputs	2.7 W	2.7 W (at 20 mA/channel)
Input		
Max. input resistance	14.1 Ω per channel	14.1 Ω per channel
Output		
Output max. load resistance	700 Ω at 21.8 mA 750 ohm at 20 mA	750 ohm at 20 mA 700 Ω at 21.8 mA
Output step response (10 to 90%)	40 ms	40 ms
Ambient Conditions		
Ambient temperature	-40 °C ... +75 °C Observe operating instructions	-40 °C ... +75 °C Observe operating instructions
Mechanical Data		
Degree of protection (IP) (IEC 60529)	IP20	IP20

Accessories			
Figure	Description	Art. No.	Weight
Pluggable terminal			
	2.5 mm <sup>2</sup> with lock, 16-pin, screw connector, blue, for connecting the field signals to I/O modules, for intrinsically safe field circuits Labelling: 1 to 16 Note: A second terminal is additionally required for I/O module Series 9470 and 9482 Labelling: 17 to 32	162702	28 g
	2.5 mm <sup>2</sup> with lock, 16-pin, spring clamp connection, blue, for connecting the field signals to I/O modules, for intrinsically safe field circuits, incl. test jacks Labelling: 1 to 16 Note: A second terminal is additionally required for I/O module Series 9470 and 9482 Labelling: 17 to 32	162695	28 g
Electronic relay			
	The 9174 electronic relay module makes it possible to switch Ex e loads using an intrinsically safe control system. Input: Ex i; output: 31.2 V/2 A DC, Ex e	212340	110 g

Accessories			
Figure	Description	Art. No.	Weight
<b>mA isolating repeater</b>			
	The mA isolating repeaters are used to connect 4-wire transmitters to active 2-wire inputs and for galvanic separation. Input: Sink, Ex e Output: Sink, Ex i	224365	140 g
	The mA isolating repeaters are used to connect 4-wire transmitters to active 2-wire inputs and for galvanic separation. Input: Sink, Ex i Output: Sink, Ex i	224364	90 g
<b>Resistor error message suppression</b>			
	The resistors are used to suppress error messages for unused I/O channels Resistance value: 5K6/0.5 W Suitable for: AIM 9468; UMH 9469; 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; UMH 9469; DIOM 9472; TIM 9482	244912	-
<b>Partition</b>			
	For mounting between intrinsically safe and non-intrinsically safe connections between I/O modules to maintain a tight string length of 50 mm	220101	10 g
<b>Warning label</b>			
	"Clean modules only with a damp cloth."	162796	1 g
<b>DIN A4 sheet</b>			
	For label plate on I/O modules; 6 plates per sheet; IS Wizard printout; packaging unit = 20 sheets	162832	1 g
<b>Labelling strips</b>			
	"FB Addr ... Mod No ..." for pluggable terminal, 26 pieces on the sheet	162788	1 g
<b>Vibration bracket set</b>			
	When installed in environments with extreme vibration (> 0.7 g and max. 4 g), the 9490 vibration brackets may be used as an additional measure and provide mechanical stability for the individual modules. For mounting: All I/O modules, except 9477/12 and 9478 Number of brackets in a set: 8 Screws (item no. 275516) must be ordered separately.	271920	-
<b>Set of screws</b>			
	Set of M5 x 14 screws (self-tapping) for 9490 vibration brackets Number of screws in a set: 25	275516	-

