



- 16 channels can be used in pairs as inputs or outputs
- Ex ia IIC intrinsically safe inputs/outputs with line fault monitoring
- Module in Zone 2 can be replaced without having to disconnect the power supply (i.e. hot-swapped)

A4

## MY R. STAHL 9470D



The 9470/33 digital input/output module for Zone 2 has 16 channels which can be used in pairs for Ex i operation as inputs for contacts and NAMUR proximity switches (EN 60947-5-6) or as outputs for indicator lamps and low-power solenoid valves. Eight inputs can be used for frequencies of up to 20 kHz, and four can be used for detecting the direction of rotation.

All inputs/outputs are short-circuit proof and galvanically separated from the system.

	IECEX / ATEX					
Zone	0	1	2	20	21	22
Ex interface	•	•	•	•	•	•
Installation in			•			






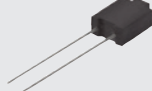

	NEC® 500 CE Code Appendix J					
	Class I		Class II		Class III	
Division	1	2	1	2	1	2
Ex interface	•	•	•	•	•	•
Installation in		•				



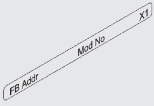

	CE Code Section 18					
	NEC® 505			NEC® 506		
	Class I					
Zone	0	1	2	20	21	22
Ex interface	•	•	•			
Installation in			•			


Selection Table				
Installation	In Zone 2 and safe areas			
Number of channels	Product Type	Art. No.	Weight	
16 Ex i inputs/outputs (adjustable parameters in pairs)	9470/33-16-10	210448	275 g	
Please order two terminals separately – see accessories and spare parts				

Technical Data	
Explosion Protection	
IECEX gas explosion protection	Ex ec ia [ja Ga] IIC T4 Gc
IECEX dust explosion protection	[Ex ia Da] IIIC
ATEX gas explosion protection	Ⓜ II 3 (1) G Ex ec ia [ja Ga] IIC T4 Gc
ATEX dust explosion protection	Ⓜ II (1) D [Ex ia Da] IIIC
Certificates	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
Declaration of Conformity	ATEX (EUK), China (CCC)
Safety Data	
Max. voltage U <sub>0</sub>	9.8 V
Max. current I <sub>0</sub> (Ex ia)	10.4 mA
Max. power P <sub>0</sub> (Ex ia)	25.5 mW
Auxiliary Power	
Current consumption	120 mA

Technical Data	
<b>Auxiliary Power</b>	
Max. power consumption	2.5 W
Max. power dissipation outputs	2.5 W
<b>Input</b>	
Signal input	EN 60947 input (NAMUR)
Supply voltage	8.2 V
Function	Frequency with direction Up/down counter
<b>Output</b>	
Output rated operation	6 V/2 mA
Notes	For the output characteristic, see the data sheet online at <a href="http://r-stahl.com">r-stahl.com</a> (MY R. STAHL 9470D)
<b>Ambient Conditions</b>	
Ambient temperature	-40 °C ... 75 °C
<b>Mechanical Data</b>	
Width	96.5 mm
Depth	67 mm
Length	128 mm

Accessories			
Figure	Description	Art. No.	Weight
<b>Pluggable terminal</b>			
	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, screw connector, blue, for connecting the field signals to I/O modules, for intrinsically safe field circuits Labelling: 17 to 32	162718	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
	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: 17 to 32	162716	28 g
<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>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	-
<b>Warning label</b>			
	"Clean modules only with a damp cloth."	162796	1 g

Accessories			
Figure	Description	Art. No.	Weight
<b>Indicator lamp</b>			
	Simple apparatus for intrinsically safe circuits according to EN 60079-11	228026	35 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	-

Spare Parts			
Figure	Description	Art. No.	Weight
<b>LED indicator lamp for front installation</b>			
	for SA front installation	274899	34 g

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

