



- Sixteen channels can be used in pairs as inputs or outputs
- Intrinsically safe Ex ia IIC inputs/outputs with line fault monitoring
- Module in Zone 2 can be hot swapped

A4

WebCode 9470D



The 9470/33 series 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 sensors (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.




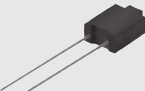

All inputs/outputs are short-circuit proof and galvanically separated from the system.

	ATEX / IECEx						NEC 505						NEC 506						NEC 500											
	0		1		2		20		21		22		0		1		2		20		21		22		Class I		Class II		Class III	
Zone	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Ex interface	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Installation in			•		•	•			•		•	•			•		•	•			•		•	•			•		•	•

Selection Table						
Installation		Zone 2				
Number of channels	Product Type	Art. No.	PS	Weight kg		
16 Ex i inputs/outputs Adjustable parameters in pairs	9470/33-16-10	210448 ▲	22	0.275		

Technical Data	
Explosion Protection	
Gas explosion protection IECEx	Ex nA ia [ia Ga] IIC T4 Gc
Gas explosion protection ATEX	⊕ II 3 (1) G Ex nA ia [ia Ga] IIC T4 Gc
Dust explosion protection IECEx	[Ex ia Da] IIIC
Dust explosion protection ATEX	⊕ II (1) D [Ex ia Da] IIIC
Certificates	ATEX (DEK), Brazil (ULB), Canada (FM), EAC (STV), IECEx (DEK), India (PESO), Korea (KTL), USA (FM)
Ship approval	ABS, CCS, ClassNK, DNVGL, RINA
Safety Data	
Max. voltage U ₀	9.8 V
Max. current I ₀ (Ex ia)	10.4 mA
Max. power P ₀ (Ex ia)	25.5 mW

Technical Data	
Auxiliary Power	
Current consumption	120 mA
Max. power consumption	2.5 W
Max. power dissipation outputs	2.5 W
Input	
Signal input	input EN 60947 (NAMUR)
Supply voltage	8.2 V
Function	frequency with direction Up/down counter
Output	
Output rated operation	6 V / 2 mA
Notes	Output characteristic, see data sheet on the Internet r-stahl.com (WebCode 9470D)
Mechanical Data	
Width	96.5 mm
Depth	67 mm
Length	128 mm

Accessories and Spare Parts			
Figure	Description	Art. No.	Weight kg
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	0.028
	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: 17 ... 32	162718	0.028
	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 ▲	0.028
	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: 17 ... 32	162716 ▲	0.028
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	–
Indicating Lamp			
	Single electrical equipment for intrinsically safe circuits according to EN 60079-11	228026	0.035