

Class I, Division 1, Groups A, B, C, D or  
Class I, Zone 1, Group IIC  
or  
Class I, Division 2, Groups A, B, C, D or  
Class I, Zone 1, Group IIC

Hazardous (Classified) Locations



The Digital Output Module Relay Type 9477/12-0\*-12 is an explosion protected electrical apparatus for installation in a Class I, DIV 1 / DIV 2, Groups A, B, C, D or Class I, Zone 1, Group IIC hazardous location according to NEC Article 504/505 or Canadian Electrical Code, CSA C22 that uses relay contacts to control up to eight Non-I.S. circuits.

Socket type 9490/12-\*\* is for installation in Division 1 or Zone 1.  
Socket type 9490/11-\*\* is for installation in Division 2 or Zone 1.

Safety data for wiring configurations to the left are as follows:

The internal system circuits are safely galvanically isolated from all output circuits up to a peak voltage of 375 V.

Type 9477/12-08-12 with base 9490/12-33 or 9490/11-33  
Relay circuits may not exceed the following nominal values:

$U_n$	60 V AC	30 V DC
$I_n$	2 A	2 A
$P_n$	100 VA	-

The output circuits are safely galvanically isolated from earth and from each other up to an operating voltage of 60 V.

Type 9477/12-06-12 with base 9490/12-34 or 9490/11-34  
Relay circuits may not exceed the following nominal values:

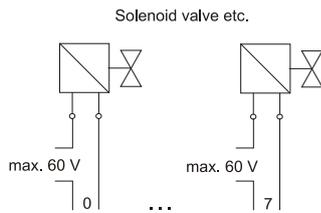
$U_n$	250 V AC	30 V DC
$I_n$	2 A	2 A
$P_n$	100 VA	-

The output circuits are safely galvanically isolated from earth and from each other up to an operating voltage of 250 V.

**Connection allocation:**

Type 9477/12-08-12 with base 9490/12-33 or 9490/11-33:

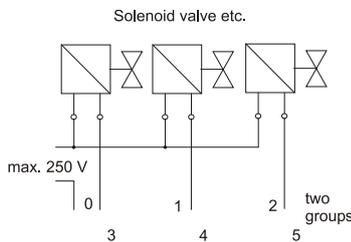
Output	Terminal X1 9490/11-33	Wire 9490/12-33
0	1, 2	1, 2
1	3, 4	3, 4
2	5, 6	5, 6
3	7, 8	7, 8
4	9, 10	9, 10
5	11, 12	11, 12
6	13, 14	13, 14
7	15, 16	15, 16



Volt free contact, normally open

Type 9477/12-06-12 with base 9490/12-34 or 9490/11-34:

Source	Output	Terminal X1 9490/11-34	Wire 9490/12-34
0		1	1
	0	3	3
	1	5	5
	2	7	7
1		9	9
	3	11	11
	4	13	13
	5	15	15



Volt free contact, normally open

**Notes:**

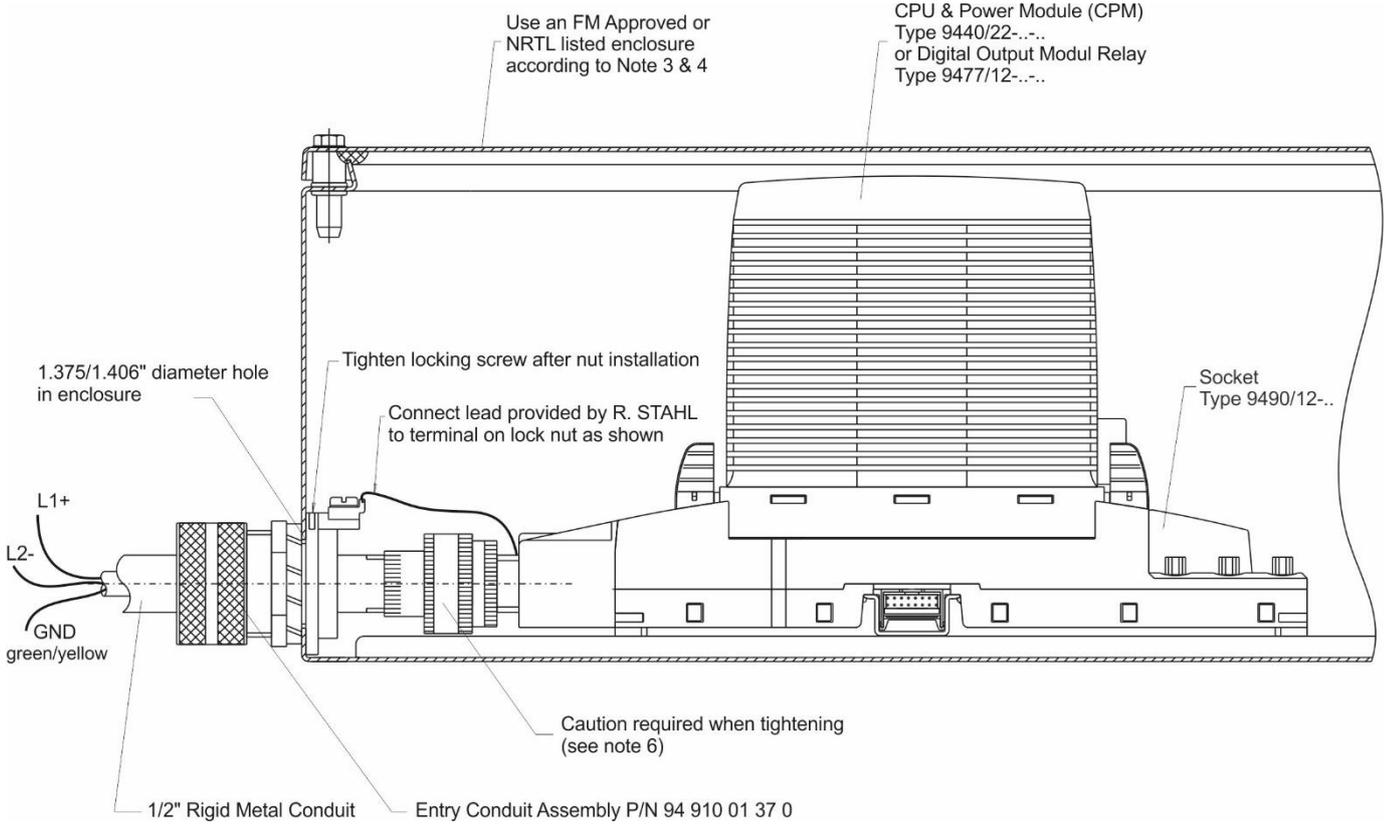
- At type 9477/12-06-12 relay circuit are grouped to two groups, each using a common source. Additional protection may be required to guarantee sufficient insulation if a group is only partly wired.
- Electrical Apparatus connected to an intrinsically safe system should not use or generate voltages > 253 V ( $U_m$ )
- The Relay Module may be detached from the Socket or plugged onto it during operation in hazardous locations.
- Make sure that the Socket's release levers are in position 1 before plug in the Relay Module. To unplug the Relay Module, set the release levers from position 1 to position 2 first, which disconnects the Relay from the Socket. Pull the Relay Module out of the base up to the intermediate position and then set the release levers to position 1 to take it off.
- For Installation in Division 1 or Zone 1 see Certification drawing for IS1 resp. IS1+ Remote I/O System No. 9400 6 031 003 1 as part of the documentation of the CPU & Power Modules.
- For Installation in Division 2 or Zone 2 see Certification drawing for IS1 resp. IS1+ Remote I/O System No. 9400 6 031 004 1 or 9400 6 031 006 1 as part of the documentation of the CPU & Power Modules.

**WARNING:** Do not disconnect the power supply input or the socket when a flammable or combustible atmosphere is present.  
**AVERTISSEMENT:** Ne pas débrancher l'entrée d'alimentation ou le socle en présence d'atmosphère inflammable ou combustible.

F 4830 503

			2016	Date	Name	<b>Certification drawing</b> <b>Digital Output Module Relay</b> <b>Type 9477/12-0*-12</b> <b>Socket Type 9490/1*-3*</b>	Scale	none
			Drawn by	03.03.	Bagusch		Sheet	1 of 2
			Checked		Kaiser		Agency	FM
01	03.05.2018	Bagusch				<b>9477 6 031 001 1</b>		
Version	Date	Name				Rep. f.	Rep. t.	A4

**Customer installation into a suitable enclosure IS1 resp. IS1+ for Class I, II, III, DIV 1 application with conduit Socket 9490/12-\*\*:**



**Notes:**

1. Electrical apparatus connected to an intrinsically safe system should not use or generate voltages > 250 V AC (Umax).
2. Installation should be in accordance with the National Electrical Code, AINSI/NFPA 70 resp. Canadian Electrical Code.
3. Use a general purpose enclosure meeting the requirements of ANSI/ISA 61010-1 for use in nonhazardous or Class I, Division 1 or Class I, Zone 1 hazardous (classified) locations.
4. Use an FM approved or NRTL listed Dust-Ignition proof enclosure appropriate for environmental protection in Class II and Class III, Hazardous (Classified) Location.
5. Entry Conduit Assembly P/N 94 910 01 37 0 provides a NEMA Type 4 environmental seal and Class II / III / dust / fiber seal.
6. Hand tightening of the union sleeve is sufficient to complete the assembly and sealing characteristics (however, a final tightening is required to prevent loosening through vibration).
7. The socket is factory sealed for the conduit entry.

F 4830 503

			2016	Date	Name	Certification drawing <b>Digital Output Module Relay</b> <b>Type 9477/12-0*-12</b> <b>Socket Type 9490/1*-3*</b>	Scale	
			Drawn by	03.03.	Bagusch		none	
			Checked		Kaiser		Sheet	
						<b>9477 6 031 001 1</b>	2 of 2	
01	03.05.2018	Bagusch					Agency	FM
Version	Date	Name	<b>STAHL</b>			Rep. f.	Rep. t.	A4