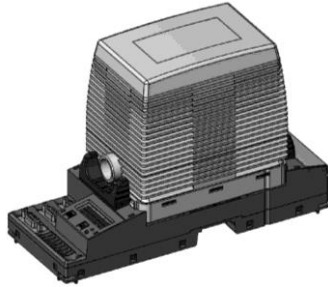


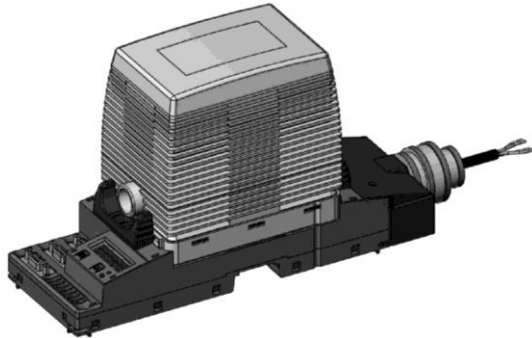
Class I, DIV 2 / Zone 1 Installation
for connection to I/O Modules located in
Class I, II, III, Division 2, Group A-G,
or Class I, Zone 1, Group IIC/IIB
Hazardous (Classified) Locations

CPM type 9440/22-01-*1 with Socket type 9490/11-12



Class I, DIV 1 / Zone 1 Installation
for connection to I/O Modules located in
Class I, II, III, Division 1, Group A-G,
or Class I, Zone 1, Group IIC/IIB
Hazardous (Classified) Locations

CPM type 9440/22-01-*1 with Socket type 9490/12-12:



The CPM types 9440/22-01-*1 are Explosion-proof modules for installation in Class I, Division 1 or Division 2, Group A-D or Class I, Zone 1, Group IIC/IIB areas; Providing intrinsically safe BusRail and RS485-IS interfaces according to NEC Article 504/505 or Canadian Electrical Code, CSA C22.

Connection allocation

CPU & Power Module (CPM) type 9440/22-01-*1 for Division 1 or 2 or Zone 1 installation with Socket type 9490/1*-12

Power supply input Socket type 9490/11-12 (X5)

CPM & Base Type	Power supply input	Function	Terminal no.
9440/22-01-11 and 9490/11-12	24 V DC (20 V ... 35 V DC)	+	1
		-	2
9440/22-01-21 and 9490/11-12	110 V AC, 230 V AC (90 V ... 253 V AC)	L	4
		N	6

Power supply input Socket type 9490/12-12 (fixed cable)

CPM & Base Type	Power supply input	Function	Cable no.
9440/22-01-11 and 9490/12-12	24 V DC (20 V ... 35 V DC)	+	1 (black)
		-	2 (black)
		Ground	4 (yellow-green)
9440/22-01-21 and 9490/12-12	110 V AC, 230 V AC (90 V ... 253 V AC)	L	3 (black)
		N	2 (black)
		Ground	4 (yellow-green)

Fieldbus / Servicebus (RS 485 I (X1), RS 485 II (X2), RS 485 III (X3))

Signal	Description	Pin
RXD / TXD-P	Received / transmitted data P, wire B	3
IS GND	Bus termination ground	5
IS P	Bus termination plus	6
RXD / TXD-N	Received / transmitted data N, wire A	8
	Not connected	1,2,4,7,9

Safety data for wiring configurations are as follows:

Power Supply (input/primary):

Conduit or type of protection Ex e:

Type 9440/22-01-11

$U_{in} = 24 \text{ V DC (20 V ... 35 V DC)}$
 $I_{in} = 2.5 \text{ A at 24 V DC}$
 $U_m = 253 \text{ V AC}$

Type 9440/22-01-21

$U_{in} = 110 \text{ V AC, 230 V AC (90 V ... 253 V AC)}$
 $I_{in} = 500 \text{ mA at 110 V AC; 225 mA at 230 V AC}$
 $U_m = 253 \text{ V AC}$

Fieldbus RS 485 -IS connections X1, X2, X3:

CL I, II, III, DIV 1, A-G / CL I Zone 0, GP IIC/IIB:

$V_{OC} = \pm 3.7 \text{ V}$ $I_{SC} = 134 \text{ mA}$
 $P_O = 124 \text{ mW}$ $V_{max} = \pm 4.2 \text{ V}$
 $C_O = 1000 \mu\text{F}$ $L_O = 1.9 \text{ mH}$

Module 1-8 over BusRail:

CL I, DIV 1, A-D / CL I Zone 1, GP IIC/IIB:

Power Supply (output/secondary):

Maximum value: $V_{OC} = 26.2 \text{ V}$


The system provides the required external current limitation for the circuit.

Address and data bus (secondary):

Maximum values: $V_{OC} = 6.5 \text{ V}$
 $I_{SC} = 116 \text{ mA}$
 $P_O = 188 \text{ mW}$
 $V_{max} = 6.6 \text{ V}$

Linear characteristic curve, the effective internal capacitance and inductance are negligibly small; $C_o = 25 \mu\text{F}$, $L_o = 2.5 \text{ mH}$

Follow the notes on the next page.

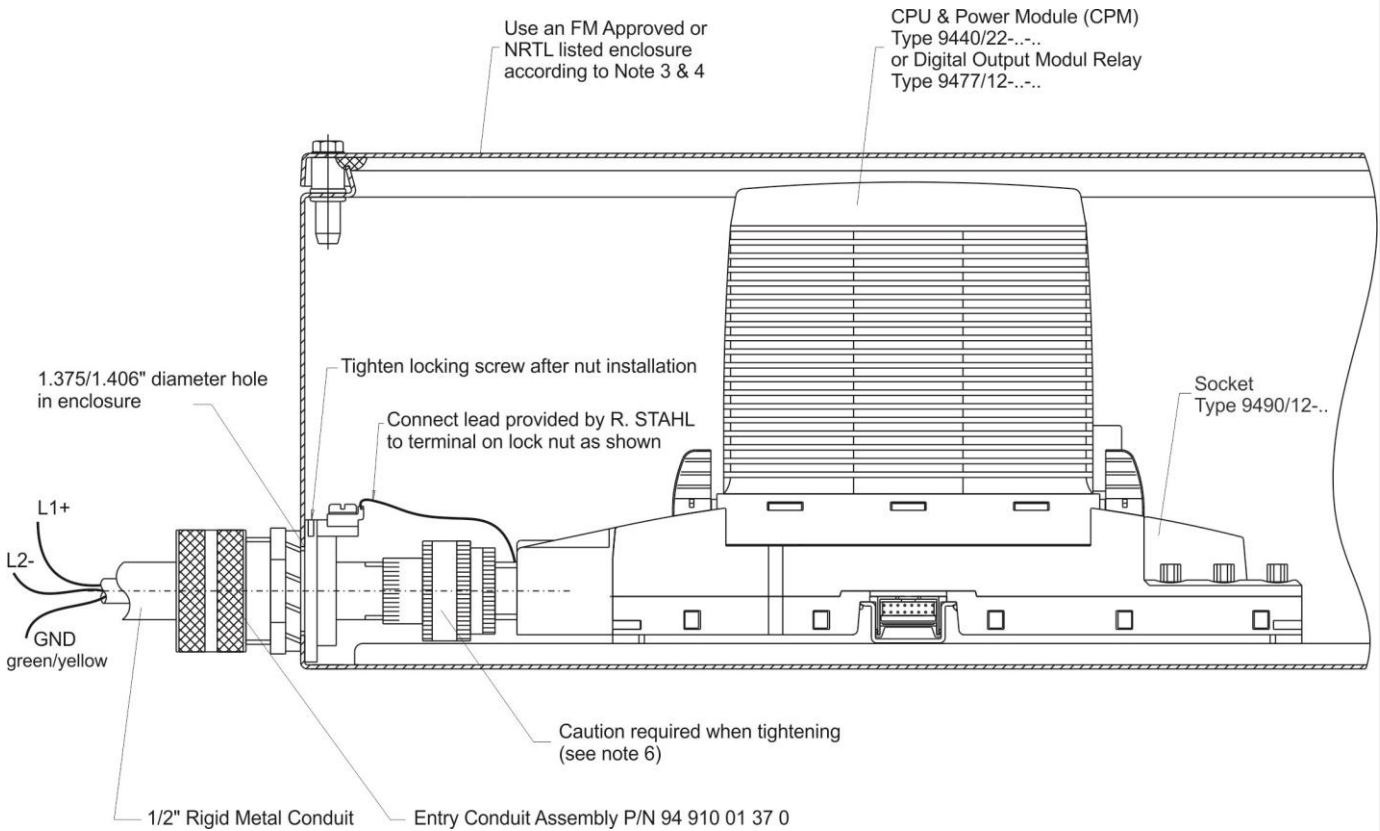
			2018	Date	Name	Certification drawing CPU & Power Module, Type 9440/22-01-*1 Socket Type 9490/1*-12		Scale
			Drawn by	21.03.	Bagusch			Sheet
			Checked		Kaiser			1 of 2
						9440 6 031 001 1		Agency
Version	Date	Name				Rep. f.	Rep. t.	A4

Notes:

1. Connect either power supply 20... 35 V DC for the CPM 9440/22-01-11 or power supply 90...253 V AC for the CPM 9440/22-01-21. Never connect both power supply voltages.
2. Insulate unused wire.
3. Electrical Apparatus connected to an intrinsically safe system should not use or generate voltages > 253 V AC (U_m)
4. The CPM may be detached from the Socket or plugged onto it during operation in hazardous locations.
5. Make sure that the Socket's release levers are in position 1 before plug in the CPM. To unplug the CPM Module, set the release levers from position 1 to position 2 first, which disconnects the CPM from the Socket. Pull the CPM out of the base up to the intermediate position and then set the release levers to position 1 to take it off.
6. Intrinsically safe apparatus may be switches, thermocouples, LEDs, RTDs or an FM approved System or Entity device connected in accordance with the manufacturer's installation instructions.
7. For Entity concept use the appropriate parameters from above to ensure the following:
 $V_{OC} \text{ or } V_t \leq V_{max}$ $C_a \geq C_i + C_{leads}$
 $I_{SC} \text{ or } I_t \leq I_{max}$ $L_a \geq L_i + L_{leads}$
8. General Notes see Certification drawing for IS1 resp. IS1+ Remote I/O System No. 9400 6 031 003 1 or 9400 6 031 004 1.

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.

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 (U_{max}).
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

			2018	Date	Name	Certification drawing CPU & Power Module, Type 9440/22-01-*1 Socket Type 9490/1*-12	Scale
			Drawn by	21.03.	Bagusch		none
			Checked		Kaiser		Sheet
						9440 6 031 001 1	2 of 2
					STAHL		Agency
							FM
Version	Date	Name				Rep. f.	Rep. t.
							A4