



RTD	TC, J & K
RTD	TC, J & K
RTD	TC, J & K
WTH	TE, J & K

		CJC		Type		
1,2 & 3,4	1,2 & 3	2 & 3	-	-	-	
-	-	3	2	Y*	3101	
1,2 & 3,4	1,2 & 3	2 & 3	-	N	3102	
-	-	3	2	Y	3111	
1,2 & 3,4	1,2 & 3	2 & 3	-	N	3112	
1,2 & 3,4	1,2 & 3	2 & 3	3	2	Y	3113
1,2 & 3,4	1,2 & 3	2 & 3	3	2	Y	3331
1,2 & 3,4	1,2 & 3	2 & 3	-	-	N	3333
1,2 & 3,4	1,2 & 3	2 & 3	3	2	Y	3337

\*3101 only internal CJC

Strøm	Spænding	Loop
Current	Voltage	Loop
Courant	Tension	Boucle
Strom	Spannung	Schleife

		HART			
3101	N	5	6	5	6
3102	N	5	6	5	6
3111	N	5	6	5	6
3112	N	5	6	5	6
3113	Y	5	6	-	-
3331	N	-	-	-	5 6
3333	N	-	-	-	5 6
3337	Y	-	-	-	5 6

**DK Forsyning af 9400 Power rail**  
Power railen kan forsynes via 3405 eller 9410 Power Connector enhederne eller alternativt via forsyningsklemmerne på 3000-serien. Følgende max. strømme er gældende ved forsyning af power railen: 3100 og 3200 modul ..... 0.4 A (For-sikring 0.4 A) 3405 modul ..... 2.5 A (For-sikring 2.5 A) 9410 modul ..... 4.0 A

**UK Supply of the 9400 Power rail**  
The power rail can be powered via the 3405 or 9410 Power Connector units or alternatively via the power terminals on the series 3000 devices. Max. current values are to be observed: 3100 and 3200 unit ..... 0.4 A (protective fuse 0.4 A) 3405 unit ..... 2.5 A (protective fuse 2.5 A) 9410 unit ..... 4.0 A

**FR Alimentation du Rail 9400**  
Le rail d'alimentation peut être alimenté par les contrôleurs type 3405 ou 9410. Pour la série 3000 il est possible en alimentant seulement un module sur sa borne d'alimentation. Valeurs maxi de courant observées : Module 3100 et 3200 ..... 0.4 A (fusible 0.4 A) Module 3405 ..... 2.5 A (fusible 2.5 A) Module 9410 ..... 4.0 A

**DE Versorgung der Power Rail 9400**  
Die Power Rail kann mit den Einspeisebausteinen 3405 oder 9410 versorgt werden oder alternativ über die Versorgungsklemmen (7 und 8) der 3000-Geräte. Zu beachten sind die folgenden maximalen Stromwerte: 3100 und 3200 Geräte ..... 0.4 A (Schutzsicherung 0.4 A) Einspeisebaustein 3405 ..... 2.5 A (Schutzsicherung 2.5 A) Einspeisebaustein 9410 ..... 4.0 A

DK Forsyning UK Supply FR Alimentation DE Versorgung

	Terminal	+	-	Power rail
3101	7	8		+
3102	7	8		+
3111	7	8		✓
3111-N	7	8		+
3112	7	8		✓
3112-N	7	8		+
3113	7	8		✓
3113-N	7	8		+

DK Pårævet ekstern sikring	Forsyning direkte på modulet	2.5 A
UK Required external fuse	Supply directly on device	
FR Fusible externe requise	Alimentation directement sur le module	0.4 A
DE Erforderliche externe Sicherung	Versorgung direkt am Gerät	
	Forsyning af power rail via standardmodul	2.5 A
	Supply of power rail using a standard device	
	Alimentation du rail d'alimentation avec module standard	4.0 A
	Versorgung von Power Rail mit Standardgerät	
	3405 Power connect unit	
	9410 Power Control unit	

DK Programmering Forsyning til enheden skal afbrydes, før ændringer i DIP-switch-indstillinger træder i kraft.  
FR Programmation Il faut mettre l'appareil sous tension pour valider la position des commutateurs.

UK Programming Power must be cycled after DIP-switch positions are changed.  
DE Programmierung Wenn die DIP-Schalter verändert werden, muss das Gerät neu gestartet werden - Versorgung abklemmen und wieder anschließen.

DK Sikringsegenskaber: 2.5 A sikringen skal afbryde efter højst 120 sekunder ved 6,4 A.  
UK Fuse characteristics: The 2.5 A fuse must break after not more than 120 seconds at 6.4 A.  
FR Spécifications du fusible: Le fusible de 2.5 A doit fondre après pas plus de 120 secondes à 6,4 A.  
DE Sicherungseigenschaften: Die 2.5 A Sicherung muss nach nicht mehr als 120 Sekunden bei 6.4 A abbrechen.

**3101**

Sensor S1	1	2	3	Sensor Error Detection S17
TC J	●	●	●	None
TC K	●	●	●	Enable

Output S1	4	5	6	Output Error Level S18	
0...20 mA	●	●	●	Downscale	
4...20 mA	●	●	●	Upscale	
0...10 V	●	●	●	Noise Supp.S19	
2...10 V	●	●	●		Resp.T. S1 10
0...5 V	●	●	●		< 30 ms
1...5 V	●	●	●	60 Hz	300 ms

● = ON

**3102**

Sensor S1	1	2	3	Sensor Error Detection S17
Pt100, 2w	●	●	●	None
Pt100, 3w	●	●	●	Enable
Pt100, 4w	●	●	●	

Output S1	4	5	6	Output Error Level S18	
0...20 mA	●	●	●	Downscale	
4...20 mA	●	●	●	Upscale	
0...10 V	●	●	●	Noise Supp.S19	
2...10 V	●	●	●		Resp.T. S1 10
0...5 V	●	●	●		< 30 ms
1...5 V	●	●	●	60 Hz	300 ms

● = ON

**3113**

Sensor S1	1	2	3	Sensor Error Detection S17
Pt100, 2w	●	●	●	None
Pt100, 3w	●	●	●	Enable
Pt100, 4w	●	●	●	

Output S1	4	5	6	Output Error Level S18
4...20 mA	●	●	●	Downscale
20...4 mA	●	●	●	Upscale
50 Hz	●	●	●	Noise Supp.S19
60 Hz	●	●	●	
				DIP
				HART

● = ON

**3111**

Sensor S1	1	2	3	Sensor Error Detection S17
TC J (Int. CJC)	●	●	●	None
TC K (Int. CJC)	●	●	●	Enable
TC J (Ext. CJC)	●	●	●	
TC K (Ext. CJC)	●	●	●	

Output S1	4	5	6	Output Error Level S18	
0...20 mA	●	●	●	Downscale	
4...20 mA	●	●	●	Upscale	
0...10 V	●	●	●	Noise Supp.S19	
2...10 V	●	●	●		Resp.T. S1 10
0...5 V	●	●	●		< 30 ms
1...5 V	●	●	●	60 Hz	300 ms

● = ON

**3112**

Sensor S1	1	2	3	Sensor Error Detection S17
Pt100, 2w	●	●	●	None
Pt100, 3w	●	●	●	Enable
Pt100, 4w	●	●	●	

Output S1	4	5	6	Output Error Level S18	
0...20 mA	●	●	●	Downscale	
4...20 mA	●	●	●	Upscale	
0...10 V	●	●	●	Noise Supp.S19	
2...10 V	●	●	●		Resp.T. S1 10
0...5 V	●	●	●		< 30 ms
1...5 V	●	●	●	60 Hz	300 ms

● = ON

**3337**

Sensor S1	1	2	3	Sensor Error Detection S17
Pt100, 2w	●	●	●	None
Pt100, 3w	●	●	●	Enable
Pt100, 4w	●	●	●	

Output S1	4	5	6	Output Error Level S18
4...20 mA	●	●	●	Downscale
20...4 mA	●	●	●	Upscale
50 Hz	●	●	●	Noise Supp.S19
60 Hz	●	●	●	
				< 30 ms
				300 ms

● = ON

**3331**

Sensor S1	1	2	3	Sensor Error Detection S17
Pt100, 2w	●	●	●	None
Pt100, 3w	●	●	●	Enable
Pt100, 4w	●	●	●	

Output S1	4	5	6	Output Error Level S18
4...20 mA	●	●	●	Downscale
20...4 mA	●	●	●	Upscale
50 Hz	●	●	●	Noise Supp.S19
60 Hz	●	●	●	
				< 30 ms
				300 ms

● = ON

## FM Installation drawing 3000QF01-V1R0

FM Certificates: FM17CA0003X, FM17US0004X  
Standards: See Certificate  
Marking: CL I, Div. 2, Gr. A-D T4, CL I, Zone 2 AEx/Ex nA IIC T4

**Electrical specifications**  
Operating temperature ..... -25°C to +70°C  
Operating temperature, 3105 ..... 0 to +70°C  
Storage temperature ..... -40°C to +85°C  
1Isolation voltage, test ..... 2.5 kVAC  
1Isolation voltage, working ..... 250 VAC (Zone 2, Div. 2)

1 Does not apply to 3101, 3102 and 3333.

## cFMus Installation In Division 2 or Zone 2

FM17CA0003X ..... Cl. I, Div. 2, Gr. A-D T4 or Cl. I, Zone 2, Ex nA IIC T4  
FM17US0004X ..... Cl. I, Div. 2, Gr. A-D T4 or Cl. I, Zone 2, AEx nA IIC T4

### Specific Conditions of use

In class I, Division 2 or Zone 2 installations, the subject equipment shall be mounted within a tool-secured enclosure which is capable of accepting one or more of Class I, Division 2 wiring methods specified in the National Electrical Code (ANSI/NFPA 70) or in Canada in the Canadian Electrical Code (C22.1). The 3000 System Isolators and Converters must be connected to limited output NEC Class 2 circuits, as outlined in the National Electrical Code® (ANSI / NFPA 70), only. If the devices are connected to a redundant power supply (two separate power supplies), both must meet this requirement. Where installed in outdoor or potentially wet locations the enclosure shall at a minimum meet the requirements of IP54. **Warning:** Substitution of components may impair suitability for zone 2 / division 2. **Warning:** To prevent ignition of the explosive atmospheres, disconnect power before servicing and do not separate connectors when energized and an explosive gas mixture is present. **Warning:** Do not mount or remove devices from the power rail when an explosive gas mixture is present.

DK Sideskilt UK Side label FR Etiquette DE Typenschild

DK Klemmenumre UK Terminal numbers FR Numéros des borniers DE Klemmennummer

DK Typenr. UK Type no. FR No. de type DE Typennr.  
DK Benforbindelser UK Pin connections FR Raccordement des bornes DE Klemmenanschluss  
DK Godkendelser UK Approvals FR Homologations DE Zulassungen

DK DIP-switchindstillinger UK DIP-switch settings FR Positions des commutateurs DE DIP-Schaltereinstellungen

DK Kina RoHS UK China RoHS FR RoHS chinois DE China-RoHS

Part Name	Hazardous Substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Printed circuit board	X	0	0	0	0	0

This table is prepared in accordance with the provisions of SJ/T 11364  
0: Indicates that said hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.  
X: Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.