



# Safety instructions

## VEGADIF 85

CSA Control Drawing



Document ID: 56992



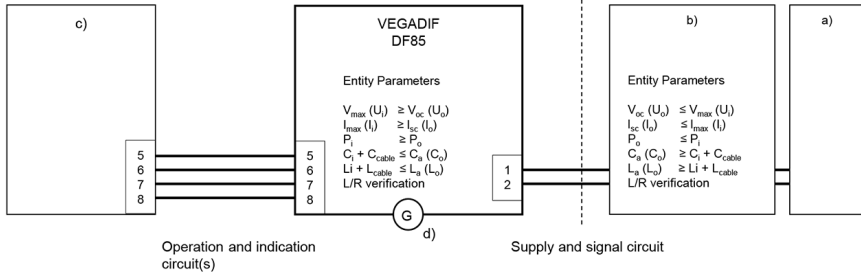
# VEGA



## Installation diagram

Hazardous (Classified) Location  
 Class I, Division 1, Groups A, B, C, D  
 or  
 Class I, Zone 0, Group IIC  
 Class I, Zone 1, Group IIC  
 Class I, Zone 0/1, Group IIC

Unclassified Location



- a) Control Room ( $U_m \leq 253$  V AC)
- b) Associated Apparatus
- c) VEGA DISPLAY e.g. VEGADIS 81 (optional)
- d) Grounding Connection

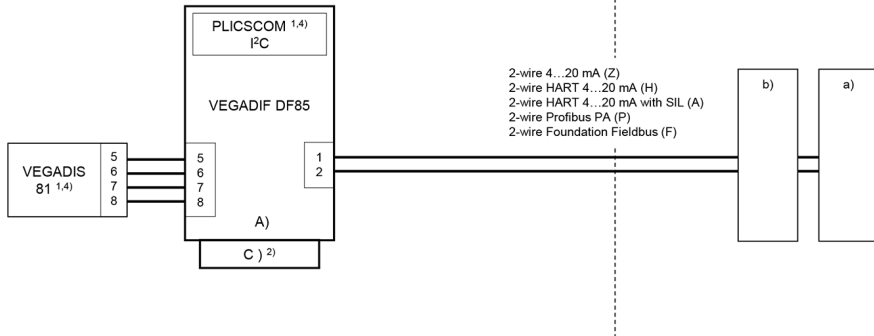
### NOTES:

1. The Entity Concept allows the interconnection of suitable approved Intrinsically safe devices with entity parameters not specifically examined in combination as a system when:
  - $U_o$  or  $V_{oc}$  or  $V_i \leq U_i$  or  $V_{max}$
  - $I_o$  or  $I_{sc}$  or  $I_i \leq I_i$  or  $I_{max}$
  - $P_o \leq P_i$
  - $C_o$  or  $C_o \geq C_i + C_{cable}$
  - $L_o$  or  $L_o \geq L_i + L_{cable}$
2. Control equipment connected to the Associated Apparatus shall not use or generate more than 253  $V_{rms}$  or  $V_{dc}$ .
3. The installation must be in accordance with the Canadian Electrical Code / National Electrical Code, NFPA 70, articles 504 and 505, and ANSI/ISA-RP12.06.01.
4. The configuration of associated Apparatus shall be suitable approved under Entity Concept.
5. Associated Apparatus manufacturer's installation control drawing shall be followed when installing this equipment.
6. WARNING: Substitution of components may impair suitability for intrinsic safety and hazardous locations.
7. WARNING - To prevent ignition of flammable or combustible atmospheres, read, understand, and adhere to the manufacturer's live maintenance procedures.

## Control Drawing VEGADIF DF85.\*C/U/O/H\*\*\*\*\*Z/H/A/P/FXK/A/V/8\*\*\*\* with optional external display and adjustment unit; single chamber housing version

Hazardous (Classified) Location  
 Class I, Division 1, Groups A, B, C, D  
 or  
 Class I, Zone 0, Group IIC  
 Class I, Zone 1, Group IIC  
 Class I, Zone 0/1, Group IIC

Unclassified Location



### Intrinsically safe parameter of supply and signal circuit

VEGADIF DF85 Terminals 1, 2	$U_i$ / V	$I_i$ / mA	$P_i$ / mW	$C_i$ / $\mu$ F	$L_i$ / $\mu$ H
Electronics Z/H/A	30	131	983	$\Rightarrow 0^{3)}$	$5^{3)}$
Electronics P/F (Entity)	24	250	1200	$\Rightarrow 0^{3)}$	$\Rightarrow 0^{3)}$
Electronics P/F (FISCO)	17,5	500	5500	$\Rightarrow 0^{3)}$	$\Rightarrow 0^{3)}$

### Intrinsically safe parameter of operation and indication circuit

VEGADIF DF85 Terminals 5, 6, 7, 8	$C_{\text{cable}}$ / $\mu$ F	$L_{\text{cable}}$ / $\mu$ H
Electronics Z/H/A	$\leq 1.98^{3)}$	$\leq 330^{3)}$
Electronics P/F	$\leq 1.98^{3)}$	$\leq 212^{3)}$

a) Control Room  $U_m \leq 253$  V

b) Associated Apparatus with entity parameters IS Barrier  $U_o \leq U_i$ ,  $I_o \leq I_i$ ,  $P_o \leq P_i$ ,  $C_o \geq C_i + C_{\text{cable}}$ ,  $L_o \geq L_i + L_{\text{cable}}$

A) Electronics and terminal compartment

C) Probe

1) Optional

2) Compact version

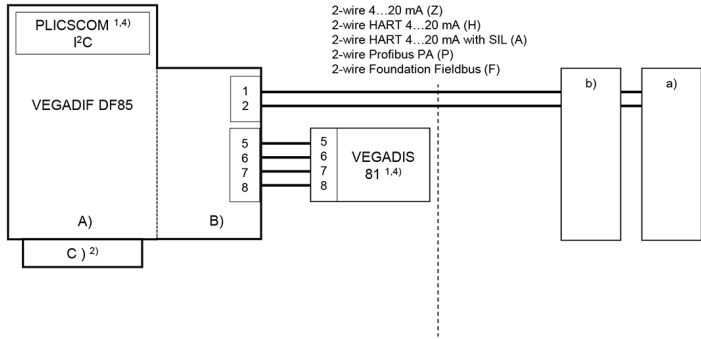
3) If cables are provided by VEGA, the following values have to be considered:  $L_i' = 0.62 \mu\text{H/m}$ ,  $C_i'_{\text{wire/wire}} = 150 \text{ pF/m}$ ,  $C_i'_{\text{wires/shield}} = 270 \text{ pF/m}$

4) Only PLICSCOM or connection to VEGADIS 81 possible

## Control Drawing VEGADIF DF85.\*C/U/O/H\*\*\*\*\*Z/H/A/P/FXR/D/W\*\*\*\* with optimal external display and adjustment unit; double chamber housing

Hazardous (Classified) Location  
 Class I, Division 1, Groups A, B, C, D  
 or  
 Class I, Zone 0, Group IIC  
 Class I, Zone 1, Group IIC  
 Class I, Zone 0/1, Group IIC

Unclassified Location



### Intrinsically safe parameter of supply and signal circuit

VEGADIF DF85 Terminal compartment, Terminals 1, 2	$U_i$ / V	$I_i$ / mA	$P_i$ / mW	$C_i$ / $\mu$ F	$L_i$ / $\mu$ H
Electronics Z/H/A	30	131	983	$\Rightarrow 0^{3)}$	$10^{3)}$
Electronics P/F (Entity)	24	250	1200	$\Rightarrow 0^{3)}$	$5^{3)}$
Electronics P/F (FISCO)	17,5	500	5500	$\Rightarrow 0^{3)}$	$5^{3)}$

### Intrinsically safe parameter of operation and indication circuit

VEGADIF DF85 Terminal compartment, Terminals 5, 6, 7, 8	$C_{cable}$ / $\mu$ F	$L_{cable}$ / $\mu$ H
Electronics Z/H/A	$\leq 1,98^{3)}$	$\leq 330^{3)}$
Electronics P/F	$\leq 1,98^{3)}$	$\leq 212^{3)}$

a) Control Room  $U_m \leq 253$  V

b) Associated Apparatus with entity parameters IS Barrier  $U_o \leq U_i$ ,  $I_o \leq I_i$ ,  $P_o \leq P_i$ ,  $C_o \geq C_i + C_{cable}$ ,  $L_o \geq L_i + L_{cable}$

A) Electronics compartment

B) Terminal compartment

C) Probe

<sup>1)</sup> Optional

<sup>2)</sup> Compact version

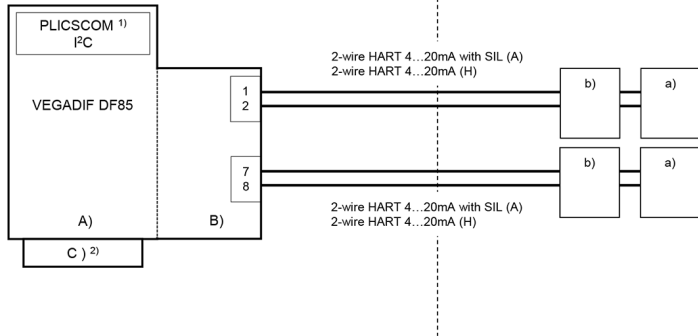
<sup>3)</sup> If cables are provided by VEGA, the following values have to be considered:  $L_i' = 0,62 \mu$ H/m,  $C_i'_{wires/wire} = 150$  pF/m,  $C_i'_{wires/shield} = 270$  pF/m

<sup>4)</sup> Only PLICSCOM or connection to VEGADIS 81 possible

Control Drawing DF85.\*C/U/O/H\*\*\*\*\*H/AZR/DW\*\*\*\* with supplementary electronics ,second current output'; double chamber housing

Hazardous (Classified) Location  
 Class I, Division 1, Groups A, B, C, D  
 or  
 Class I, Zone 0, Group IIC  
 Class I, Zone 1, Group IIC  
 Class I, Zone 0/1, Group IIC

Unclassified Location



Intrinsically safe parameter of supply and signal circuit

VEGADIF DF85 Terminal compartment, Terminals 1, 2 / 7, 8	$U_i$ / V	$I_i$ / mA	$P_i$ / mW	$C_i$ / $\mu$ F	$L_i$ / $\mu$ H
Electronics H/A, Terminals 1, 2	30	131	983	$\Rightarrow 0^3)$	$5^3)$
Electronics H/A, Terminals 7, 8	30	131	983	$\Rightarrow 0^3)$	$5^3)$

a) Control Room  $U_m \leq 253$  V

b) Associated Apparatus with entity parameters IS Barrier  $U_o \leq U_i$ ,  $I_o \leq I_i$ ,  $P_o \leq P_i$ ,  $C_o \geq C_i + C_{cable}$ ,  $L_o \geq L_i + L_{cable}$

A) Electronics compartment

B) Terminal compartment with supplementary electronics second current output

C) Probe

<sup>1)</sup> Optional

<sup>2)</sup> Compact version

<sup>3)</sup> If cables are provided by VEGA, the following values have to be considered:  $L_i^* = 0.62 \mu$ H/m,  $C_{i\_wire}^* = 150$  pF/m,  $C_{i\_wires/shield}^* = 270$  pF/m



Printing date:

**VEGA**

All statements concerning scope of delivery, application, practical use and operating conditions of the sensors and processing systems correspond to the information available at the time of printing.

Subject to change without prior notice

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