INSTALLATION MANUAL

DF11 / DF12 / DF13 / DF14

DC INPUT MODULE

smar
FIRST IN FIELDBUS

MAY / 02

DF11 / DF12 / DF13 / DF14

VERSION 2.0

DF11-14ME

smar

web: www.smar.com

Specifications and information are subject to change without notice.
For the latest updates, please visit the SMAR website above.

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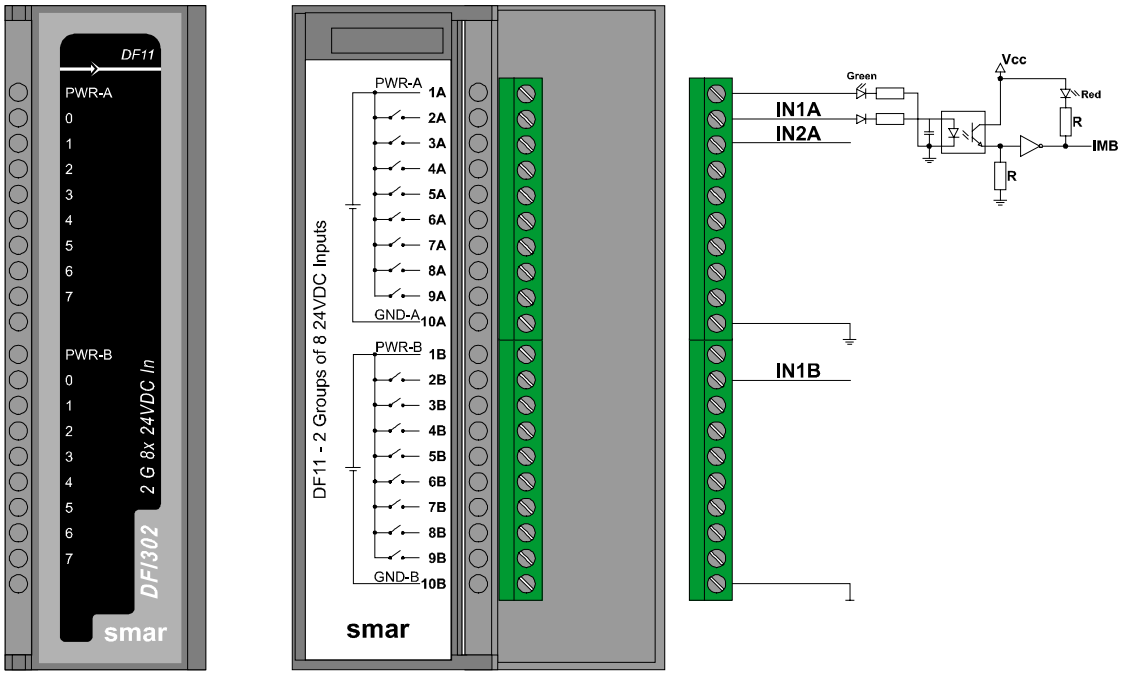
DC Input Module DF11/DF12/DF13/DF14

DF11 (2 groups of 8 24 Vdc inputs isolated)
DF12 (2 groups of 8 48 Vdc inputs isolated)
DF13 (2 groups of 8 60 Vdc inputs isolated)
DF14 (2 groups of 8 125 Vdc inputs isolated)

Description

The Module senses the DC input Voltage and converts it into a True (ON) or False (OFF) logic signal. It has 2 optically isolated groups.



Technical specifications

Architecture	
Number of Inputs	16
Number of Groups	2
Number of Points per Group	8

Isolation	
Groups are individually isolated	
Optical Isolation up to	5000 Vac

External Power	
Voltage Source for Inputs	DF11, 18 - 30 Vdc
	DF12, 36 - 60 Vdc
	DF13, 45 - 75 Vdc
	DF14, 95 - 140 Vdc
Typical Consumption per group	65 mA
Indicator of source	Green LED

Internal Power	
Provided by the IMB bus	5 Vdc @ 80 mA Maximum
Total Maximum Dissipation	0.4 W
Indicator of source	None

Inputs	
ON State Level (True Logic)	20 - 30 Vdc (DF11)
	30 - 60 Vdc (DF12)
	38 - 75 Vdc (DF13)
	95 - 140 Vdc (DF14)
OFF State Level (False Logic)	0 - 5 Vdc (DF11)
	0 - 9 Vdc (DF12)
	0 - 12 Vdc (DF13)
	0 - 25 Vdc (DF14)
Typical Impedance	3K9 Ω (DF11)
	7K5 Ω (DF12)
	10K Ω (DF13)
	39K Ω (DF14)
Status display	Yellow LED
Input current per Point	7.5 mA (typical)

Switching Information	
Minimum Voltage (0 to 1)	20 Vdc (DF11)
	30 Vdc (DF12)
	38 Vdc (DF13)
	95 Vdc (DF14)
Maximum Voltage (1 to 0)	5 Vdc (DF11)
	9 Vdc (DF12)
	12 Vdc (DF13)
Time from “0” to “1”	30 µs
Time from “1” to “0”	50 µs

Dimensions and Weight	
Dimensions (WxHxD)	39.9x137.0x141.5 mm ; (1.57x5.39x5.57 in)
Weight	0.285 kg

Wire	
One wire	14 AWG (2 mm^2)
Two wires	20 AWG (0.5 mm^2)