

**DF25 / DF26 / DF27 / DF29 /
DF30 / DF31 / DF71 / DF72**

smar

FIRST IN FIELDBUS

OCT/02
DF25 / DF26 / DF27 / DF29 /
DF30 / DF31 / DF71 / DF72
VERSION 2.0

INSTALLATION MANUAL

RELAY OUTPUT MODULE



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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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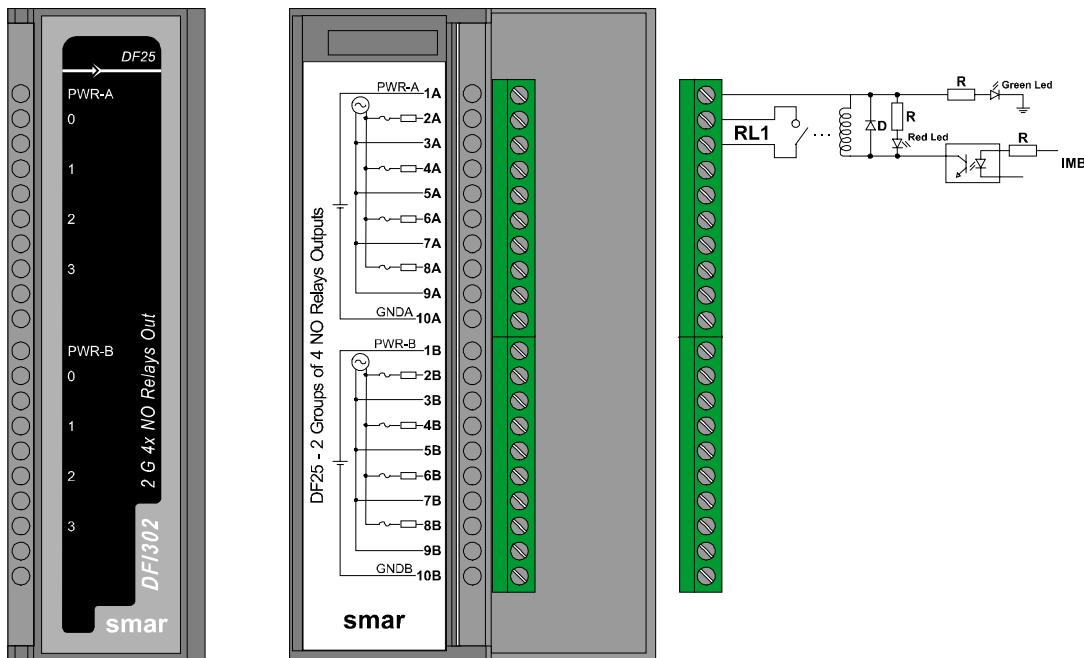
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Relay Output Module DF25/DF26/DF27/DF29/DF30/DF31/DF71/DF72

- DF25 (2 groups of 4 NO relay outputs)
- DF26 (2 groups of 4 NC relay outputs)
- DF27 (1 groups of 4 NO and 4 NC relay outputs)
- DF29 (2 groups of 4 NO relay outputs without RC protection)
- DF30 (2 groups of 4 NC relay outputs without RC protection)
- DF31 (1 groups of 4 NO and 4 NC relay outputs without RC protection)
- DF71 (2 groups of 4 NO Relays Outputs without RC protection - Max 10mA)
- DF72 (2 groups of NC Relays Outputs without RC protection - Max 10mA)

Description

This relay output Module is designed to switch pilot lamps, valves, and relay coils up to 5 A per output. The relays can drive loads ranging from 20 to 110 Vdc or from 20 to 250 Vac. Two screw terminals are reserved for each relay output. Two groups are separated with individual common power grounds.



Technical specifications

Architecture	
Number of Outputs	8
Number of Groups	2
Number of Points per Group	4
Isolation	
8 individually isolated relay contacts.	
The driver for each relay is optically isolated from IMB up to	5000 Vac
External Power	
Voltage Source for each Group	20 – 30 Vdc
Maximum Current per Group	67 mA
Maximum Consumption per Point	16.8 mA
Indicator of Source per Group	Green LED

Internal Power	
Provided by the IMB bus	5 Vdc, @ 20 mA, Maximum
Total Maximum Dissipation	0.1 W
Indicator of source	None

Outputs		
	DF25/DF26/DF27/DF29/DF30/DF31	DF71/DF72
Vac Range	20 – 250 Vac	30-250 Vac
Vdc Range	20 – 110 Vdc	10-220 Vdc
Maximum Current for 30 Vdc / 250 Vac	5 A (resistive); 2 A (inductive)	10 mA
Minimum Current	10 mA	1 mA
Initial contact resistance maximum	30 mΩ	75 mΩ
Status display	Yellow LED	Yellow LED
Indicator Logic	ON if the relay's coil is active	ON if the relay's coil is active
Leakage	DF25/DF26/DF27 500 μA @ 100 Vac DF29/DF30/DF31 none	none
Over load protection per output	Should be provided externally	Should be provided externally

Switching Information		
	DF25/DF26/DF27/DF29/DF30/DF31	DF71/DF72
RC Protection Circuit	62 Ω in series with 0.01 μF (only valid in DF25/DF26/DF27)	none
Operate Time	10 ms Maximum	4 ms Maximum
Release Time	10 ms Maximum	4 ms Maximum

Electrical service life		
	DF25/DF26/DF27/DF29/DF30/DF31	DF71/DF72
Mechanic Switching Cycles	100.000 minimum operations @ 5 A 250 Vac	100.000.000 operations

Dimensions and Weight	
Dimensions (WxHxD)	39.9x137.0x141.5 mm; (1.57x5.39x5.57 in)
Weight	0.305 kg

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

Note

To increase the service life of your contacts and to protect the module from potential reverse voltage damage, externally connect a clamping diode in parallel with each inductive DC load or connect an RC snubber circuit in parallel with each inductive AC load.