WatchDog pro

G2DO4 R

- ☞ 4 potential free change over contacts
- ☞ Reinforced insulation between the outputs and the local interface
- ☞ Relay state transmitting via standard bus
- ☞ Modular monitoring system
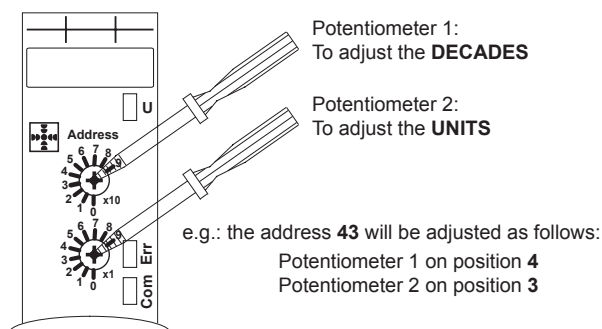- ☞ Width 22.5mm
- ☞ Industrial design

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☞ Technical data

☞ 1. Functions
WatchDog pro module with 4 separate switchable potenital free relay outputs.

☞ 2. Address adjustment
Address range: 1-99
Deactivation (Off): address 0

Potentiometer 1:
To adjust the **DECADES**

Potentiometer 2:
To adjust the **UNITS**

e.g.: the address **43** will be adjusted as follows:
Potentiometer 1 on position **4**
Potentiometer 2 on position **3**

☞ 3. Indicators
Green LED U ON:	module is supplied via local interface
Yellow LED Com ON / flashes:	data exchange over standard bus is in progress
Red LED Err ON:	indication of failure

☞ 4. Mechanical design
Self-extinguishing plastic housing, IP rating IP20
Mounted on DIN-rail TS 35 according to EN 50022
Mounting position: any
Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20
Tightening torque: max. 1Nm
Terminal capacity:
1 x 0.5 to 2.5mm² with/without multicore cable end
1 x 4mm² without multicore cable end
2 x 0.5 to 1.5mm² with/without multicore cable end
2 x 2.5mm² flexible without multicore cable end

☞ 5. Supply
Rated voltage:	24V DC from local interface
Tolerance:	-10% to +10%
Rated consumption:	0.3W to 1.5W (dependent of the relay state)
Rated current:	56mA (R1-R4 ON)
	9mA (R1-R4 OFF)
Max. supply current:	70mA
Ripple and noise:	< 150mV$_{PP}$
Duty cycle:	100%
Start-up time:	2.2s typ.
Drop-out voltage:	> 60% of supply voltage

☞ 6. Businterface
Standard bus:
Data link:	RS485; yellow LED Com ON
Interface parameter:	115.2kBd, 9 bits data
Number of extension modules:	
Local interface:	24* (width 22.5mm)

* dependent on the max. permissible current through local interface of the Central Unit (CU)
(additional extension is possible by the remote bus!)

☞ 7. Isolation
Fusing:	max. 20A
Overvoltage category:	III (in accordance with IEC 60664-1)
Rated surge voltage:	6kV between output circuit and local interface

☞ 8. Output circuit
4 potential free change over contacts
Rated voltage:	250V AC
Switching capacity (distance < 5mm):	
	750VA (3A / 250V)
Switching capacity (distance > 5mm):	
	1250VA (5A / 250V)
Fusing:	5A fast acting
Mechanical life:	20 x 10^6 operations
Electrical life:	2 x 10^5 operations at 1000VA resistive load
Switching capacity:	max. 6/min at 750VA resistive load (in accordance IEC 60947-5-1)

☞ 9. Ambient conditions
Ambient temperature:	-25 to +55°C (in accordance with IEC 68-1)
	-25 to +40°C (in accordance with UL 508)
Storage temperature:	-25 to +70°C
Transport temperature:	-25 to +70°C
Relative humidity:	15% to 85% (in accordance with IEC 60721-3-3 class 3K3)
Absolute humidity:	1g to 25g H$_2$O/m^3 (in accordance with IEC 60721-3-3 class 3K3)
Pollution degree:	2 (in accordance with IEC 60664-1)
Vibration resistance:	10 to 55Hz 0.35mm (in accordance with IEC 68-2-6)
Shock resistance:	15g 11ms (in accordance with IEC 68-2-27)

☞ Operator accessibility of clamps and connectors

The table shows which terminals and connectors can be touched by the operator during normal operation.
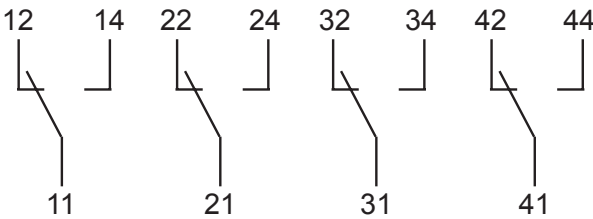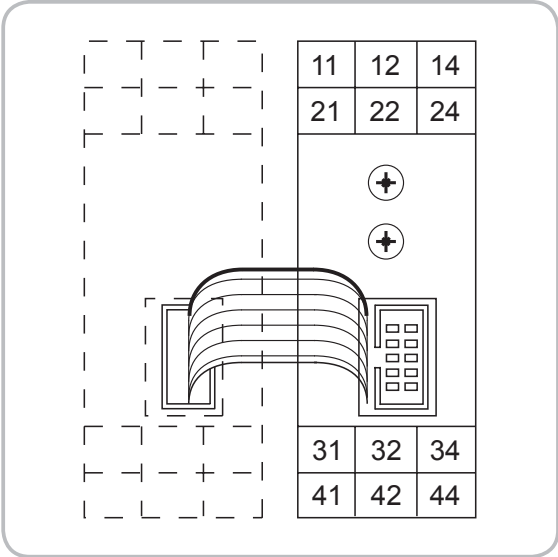
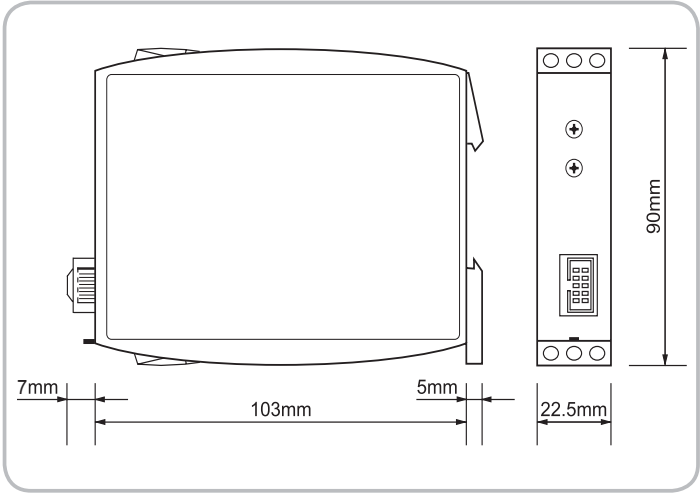| Nr.	Type	Terminal	Touchable
1	AI	Communication interface for local input-/output-extension device	YES
2	Ar	Communication interface for remote input-/output unit	YES
3	Be	Open communication interface, open to external devices as well	YES
4	Bi	Internal communication interface for peripheral modules	NO
5	C	Interface for digital and analog input signals	NO
6	D	Interface for digital and analog output signals	NO
7	E	Serial or parallel communication interface for data communication with external devices	YES
8	F	Terminal for line power supply	NO
9	H	Functional Earth terminal	YES
10	J	Input-/output interface for power supply of sensors and actuators	NO
11	K	Interface for auxiliary supply output and auxiliary supply input	NO

Digital output: **G2DO4 R** - Definition of circuits:

Name	Type	Nr.	Terminals related to the Circuit
Relay output	D	5	11, 12, 14
Relay output	D	5	21, 22, 24
Relay output	D	5	31, 32, 34
Relay output	D	5	41, 42, 44
Locale interface	AI	1	LI Box header; LI plug connector with ribbon cable

☞ Connections

☞ G2DO4 R

☞ Dimensions

7mm   103mm   5mm   22.5mm   90mm

☞ Ordering information

Type	Address range	LEDs	Part Nr. (PQ 1)
G2DO4 R	1 to 99	U, Err, Com, R1, R2, R3, R4	2500200

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