

**THE ART OF
CONTROL**

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COMMISSIONING UNIT FOR DMA-2

CU/DMA-2

**FOR COMMISSIONING, TESTING, TROUBLE SHOOTING
FOR ALL SYSTEMS WHERE DMA-2 MODULES ARE USED**

- For commissioning, maintenance, tests etc of machines, systems, equipment, valves or for laboratory use
- Universal usable for all versions DMA-2 *1



- Integrated wide range power supply
- Basically all functions of DMA-2 can be tested by means of switches, potentiometers and I/O connections at front and rear
- Versions in 24 V or 12 V available

*1: DMA-2 must be ordered separately!

1 Applications and usage

CU/DMA-2 are generally used for:

For all systems where DMA-2 modules are used

- for commissioning
- for testing
- for maintenance of all systems, machines, installations, equipment applications etc.
- during trouble shooting
- in laboratories
- used in conjunction with one DMA-2

- Basically all digital and analogue I/O signals of DMA-2 are accessible through Phoenix jacks at rear of unit
- Phoenix connectors with cage clamp technology for easy and quick connection
- Most of the signals can also be generated (or simulated) at the unit itself
- Digital signals are applied by means of toggle switches (for selection of set points, enable signal etc.)
- For analog signals potentiometers and switches are used in order to apply signals to set point and feedback inputs
- Additionally the 24 V supply voltage is available at rear
- 2 x 3 terminal jacks at rear for connection of solenoid A and B
- Mains cable for European countries included.
- Other on request
- Optional available for 12 V systems
- The DMA-2 is not included in the delivery. Please order separately.

2 Features

- Compact and light unit; easy to transport, rugged design
- Custom built into a standard metal housing with adjustable carriage handle
- Wide range power supply included for easy world wide usage
- Unit is tested for safety of the insulation and effectiveness of the PE connection

3 Main technical data

Feature	Range, characteristics
Supply voltage	Wide range power supply. Meanwell type: NES-25-24 Nominal/operational: 85 - 264 V AC; 47 / 63 Hz Mains/line current (typ.): 0.55 A @ 115 V AC; 0.35 A @ 230 V AC Efficiency: 86 % Current at switch-on (cold start): 45 A Output parameters: max. output W (50° C): 100 / 80 W Output voltage: 24 V Output current: 1.1 A (≤ 50° C) / 0.66 A (60° C) Protection: overload 110 ~ 150 % rated power; short circuit/overload/over voltage Protection type: hiccup mode; recovers automatically after fault conditions is removed Ambient temperature operation/storage: - 20 ... + 60° C (derating!) / - 40 ... + 85° C Detailed data sheet and CE declaration on request or download from: http://www.meanwell.com/search/NES-25/NES-25-spec.pdf . <u>Version with 12 V output voltage on request!</u>
Modul connection	For 1 DMA-2 module
Front elements	1 x switch power on/off; 1 x switch enable 5 x switch digital inputs set point activation 4 x switch analogue command/feedback selection 2 x 270°-turn potentiometer for analogue command/feedback (3-turn on request) 2 x LED for status and error
Rear elements	1 x Main in receptable (IEC 60320-1 / C13) combined with fuse; 1 x mains on/off switch 4 x groups of Phoenix connectors (type: FKC 2,5/x-STF) for all kinds of analogue and digital I/O signals, (24 terminals in total) 1 x 37 pole Sub-D connector female for interface cable to DMA. (interface cable must be ordered separately)
Housing	Compact housing with one adjustable handle (Metcase Unimet 2H) Housing configuration: non-ventilated (IP30) Material: complete metal Dimensions approx.: (w x h x d) 231(269) x 80 x 210 (270) mm Weight: 1.7 kg (without cables and DMA-2)
Unit tested	In accordance with VDE 0701-1/9 and BGV A3

4 Safety and other remarks



Only authorized and trained personal should perform work at and with this unit

Before connecting the unit to mains supply make sure that nothing is damaged!



Warning: Do not connect the unit if the mains cord or the unit itself is damaged or if the protective earth connection is not effective!

Disconnect mains before opening the unit!

Attention: Danger of electrical shock!

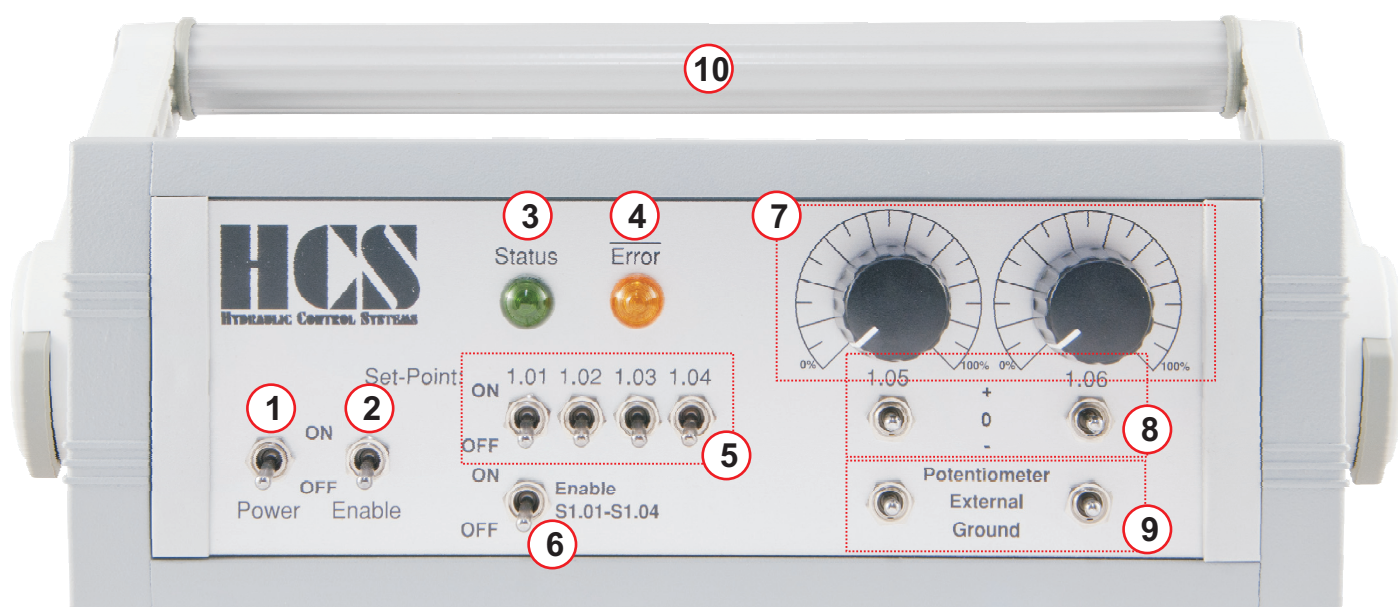


The mains supply cord must be equipped with protective earth (PE green/yellow)!

The mains input is including a fuse and is on the rear side (F1: 0.63 A T for 220/240 V AC)

5 Front view

Front control elements of CU/DMA-2:

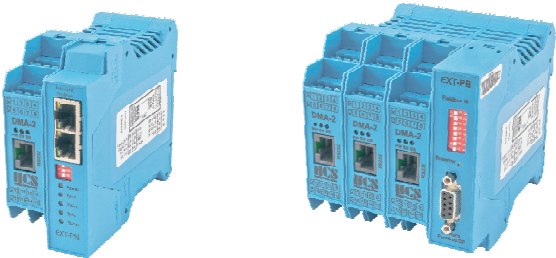
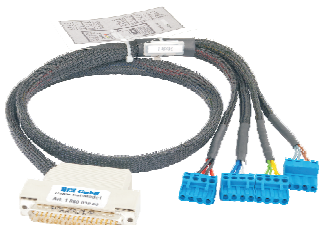


#	Feature, element
1	Power on/off for DMA-2
2	Digital input „Enable“
3	Green status LED; power to DMA ok when lit
4	Orange Error LED; will be lit when Error occurs at DMA-2
5	Digital inputs „Set point 1 - 4“ („1.01“, „1.02“, „1.03“, „1.04“)
6	Switch to activate „Set point 1 - 4“
7	270° turn potentiometers for analogue command input „S1.05“ and „S1.06“ (3-turn potentiometers on request)
8	Selection switches for analogue command input „S1.05“ and „S1.06“
9	Activation switches for analogue command input „S1.05“ and „S1.06“
10	Adjustable handle

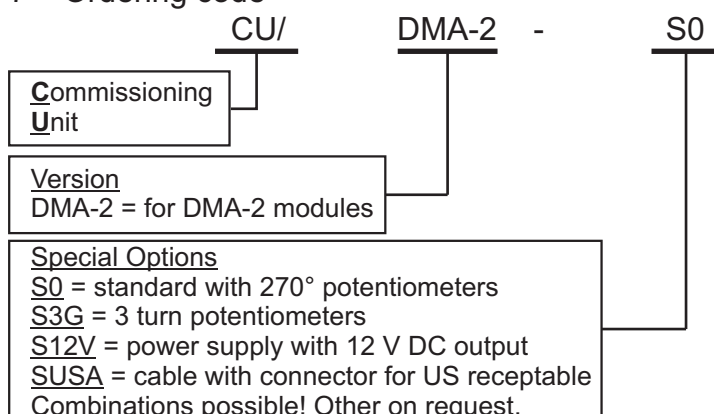
6 Accessories and Options

Name	Description
DMA-2	Please order separately. Refer to DMA-2 data sheets for details
Cable sets to connect CU/DMA to DMA-2	Please order separately. Cable for CU/DMA Version 1 to 4: Version 1: for DMA-22-01-X (mode 1). Version 2: for DMA-22-02/03/04-X (mode 2,3,4) Version 3: for DMA-22-05-X-S10Vref (mode 5 with 10Vref output) Version 4: for DMA-22-05-X-SANAout-10Vref (mode 5 with 10Vref and analogue output) Each cable length approx. 1 m with one Sub-D connector 37-pole male at one end and 4 connectors MSTBU for direct connection at DMA-2 on the other end.
HCSTool	Software for parameterization, operation, monitoring, storage and documentation of adjustments. In English, French and German on CD (free download available). Please follow this link in order to download the most recent version of HCSTool: http://www.h-c-s-gmbh.de/download/
DMA-RS232-DS9F_RJ45	Interface cable for communication between PC and DMA-2 for direct usage at RS232 interface; 1 x Sub-D 9-pole connector female, 1 x RJ45 connector
USB-RS232-RJ45	As above but w. USB-adaptor. 1 x connector RJ45, w. 2,5 or 10 m cable
EKB-04	EKB-04 Handheld keypad and display unit for parameter setting and copying

Not to scale!

DMA	DMA - versions with bus-interfaces		Cable for comm. unit
			
HCSTool	Interface Cable	Interface Cable	EKB-4
			

7 Ordering code

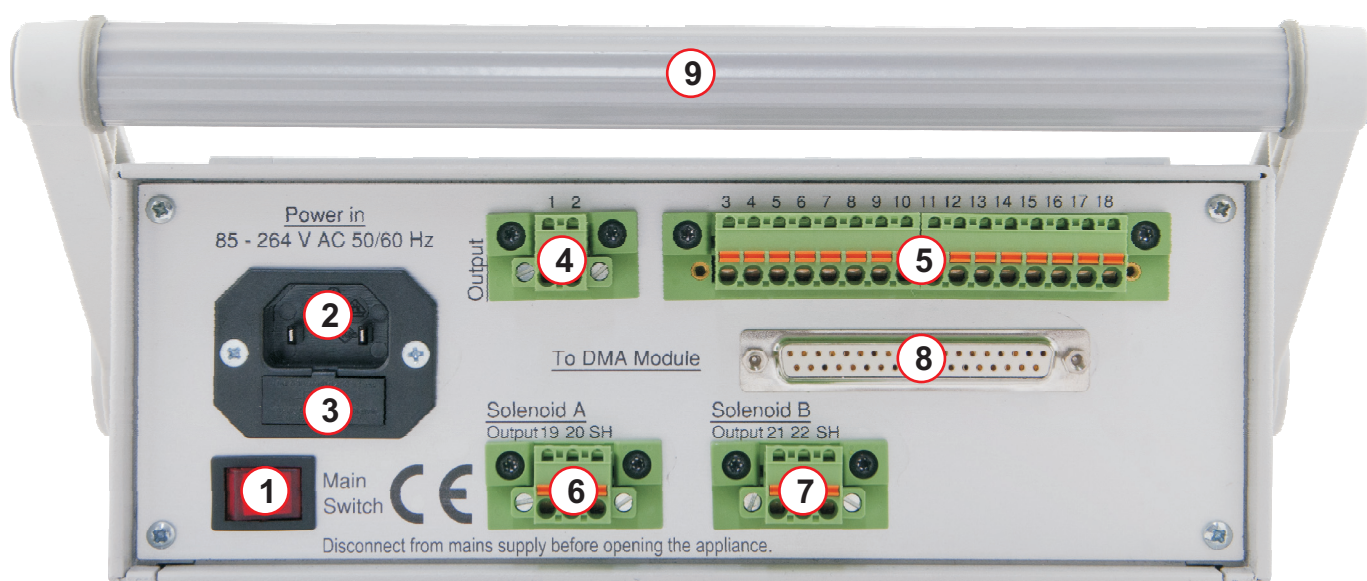
**Ordering code example:**

Version with 3 turn potentiometers and 12 V power supply and standard european mains cable

CU/DMA-2-S3G-12V

8 Rear view

Rear connection elements of CU/DMA-2:



#	Feature, element
1	Mains on/off switch (illuminated)
2	Mains in receptable Secondary fuse F2 (2.5 A T)
3	Primary fuse (0.63 A T)
4	X1: 2 pole connector for supply voltage out 24 V
5	X2: 2 x 8 pole connectors for all digital and analogue I/O signals
6	X3: 3 pole connector for solenoid A
7	X4: 3 pole connector for solenoid B
8	37 pole Sub-D connector female for connection cable to DMA-2
9	Adjustable handle

9 Terminal lay-out rear connectors

Rear connection elements of CU/DMA-2:

#	Signal
X1/1	+ 24 V out (direct)
X1/2	GND
X3/1	IA+
X3/2	IA-
X3/3	shield A
X4/1	IB+
X4/2	IB-
X4/3	shield B

#	Signal	#	Signal
X2/3	+ 24 V out (switch)	X2/11	S1.05 + (Fb1+)
X2/4	GND	X2/12	S1.05 - (Fb1 -)
X2/5	Enable	X2/13	S1.06+
X2/6	Error	X2/14	S1.06 -
X2/7	S1.01	X2/15	NC
X2/8	S1.02	X2/16	Analogue Out
X2/9	S1.03	X2/17	Analogue GND
X2/10	S1.04	X2/18	+ 10V Ref out

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