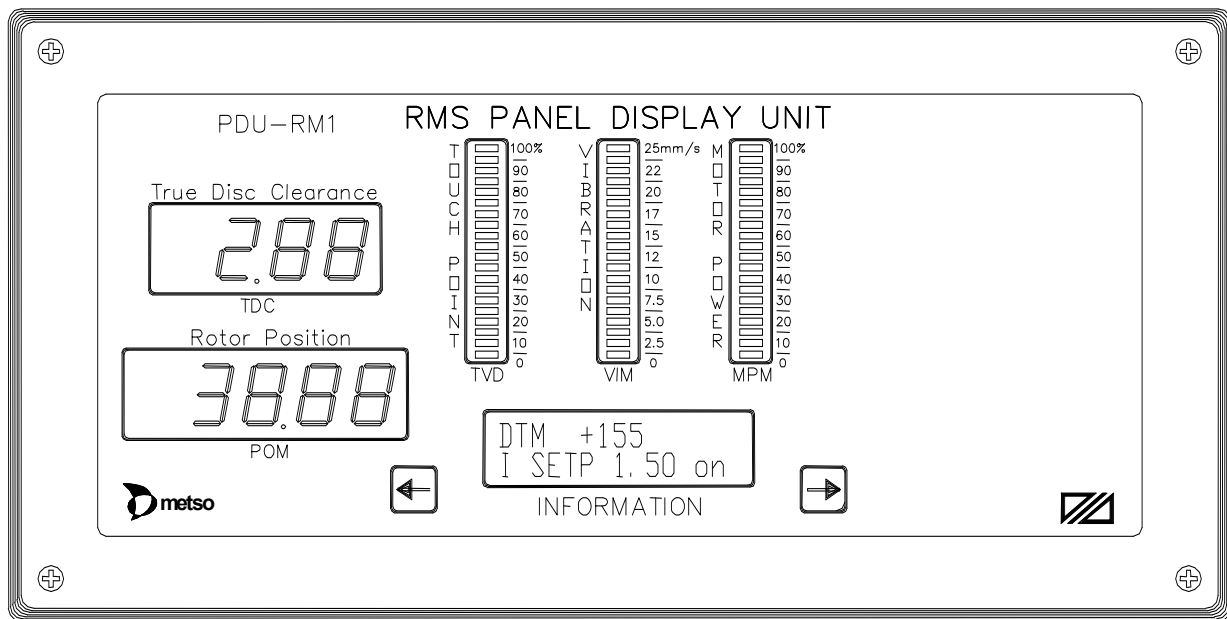


dametric

PDU-RM1

VAL0122987 / SKC9103207



PANEL DISPLAY UNIT FOR THE RMS-SYSTEM USERS MANUAL

Valmet

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1 DESCRIPTION OF OPERATION

The PDU-RM1 is a panel display unit for RMS-SD system. The unit works as a slave display to the DCU-RM1 unit in the RMS rack.

Following signals is monitored on 7-segment led digits.

DCA	True disc clearance distance	3-digits
POM	Rotor Position	4-digits

Following signals is monitored on bar graph led displays.

VIM	Vibration	20-segment
TVD	Touch point	20-segment
MPM	Main motor power	20-segment

Further information can be shown on a information display. The display uses 2 rows of 16 characters. Each character is a 5*7 dot matrix. It is built in LCD technology with background light.

DTM	Disc Temperature
	Analog set limit value to the gap controller
	Sum alarm
	Feed guard alarm
	Regulator alarm
	DCA-calibration information
	Measured values in the rack by activating the arrow-buttons in the front.

2 TECHNICAL SPECIFICATION

Dametric article no:	PDU-RM1
Metso article no.:	VAL0122987
SKC article no.:	SKC9103207
Power supply:	+24 Vdc, $\pm 10\%$, max 0.25 A
Internal supply:	+5 Vdc, , isolated from the power supply
Pushbuttons:	Two, for display of the measured values on the info display
Panel signal indicators:	
7-segment display:	Digit height = 17 mm, width = 8 mm, colour = red.
20-segment bar graph:	Dot height = 1.5 mm, width = 5 mm, colour = green.
Information display:	2 rows, 16 characters, with green background light.
Digit height = 5.5 mm, width = 3 mm, colour = black.	
Digital signals:	RS485-interface from the dcu-unit.
Input:	ID+PDU1
Output:	ID+PDU2
Common:	ID-PDU

3 INFORMATION DISPLAY

3.1 NORMAL READOUT

DTM +155
I SETP 1.50 on

DTM Disc temperature
I/E Internal/External Setpoint
R Restricted to go together due to low A-pressure
SETP 1.50 Setpoint for the regulator
on indicate the regulator status

3.2 SUM ALARM

SUM ALARM
POM

This information is indicated if any RMS-unit generates an internal analogue signal that is out of the limits. Push ENTER on the DCU-unit to confirm. The unit name is displayed until ENTER is pressed, then it will be cleared.

3.3 REGULATOR ALARM

REGULATOR
ALARM (XXXXX)

The "REGULATOR ALARM" indicates an alarm from the disc regulator.

(OVER) Over alarm
(UNDER) Under alarm
(SETPOINT) External setpoint out of limit

3.4 FEED GUARD INDICATION

FG (XXXXXXX)

Indicates the state during the Feed Guard Retraction. The DCU-unit will display further information.

(contact) FeedGuard contact

(alarm) FeedGuard alarm

(retraction) FeedGuard reset activated

3.5 ++ LIMIT OF THE DCA DEACTIVATED

++

The "++" will be presented in the normal display mode, if the DCA-distance is lower than the adjusted ++ limit and if the MPM-value is lower than the LoLow limit. The MPM unit must be set on in the UNITS menu to be able to display ++.

3.6 DCA CALIBRATION

TVD LIMIT XX%

REL POM -0.10

The preset TVD-limit will be displayed when the calibration of the DCA-unit is activated.

The TVD unit must be set on in the UNITS menu to be able to activate this function.

When the TVD-unit has reached the limit, the relative POM-value will then instead be displayed.

4 MONITOR MEASURED VALUES

← **EXIT MPM VIM** →
2.00 MW

The PDU-unit can also be used to monitor the measured values.

Start this function by pushing any of the buttons at the display. The above readout will then appear. If no button is pressed within app. 5 minutes, the unit will automatically exit this function. An alarm state or any other priority text information will also force the unit to exit this function (are valid for all priority functions without sum alarm). If a sum alarm occurs when this function is active, this function will be interrupted and sum alarm will be displayed instead. But if you enter this function again it won't be interrupted by additional sum alarm.

Use the left or right buttons to scroll among the units. The text on the left side indicates the next unit, if the left button is pressed, and the right hand text is the same for the right button. The middle text indicates the chosen unit, and the measured value (or values) is displayed under this text.

If "EXIT" is displayed at the left and the left button is pressed, the unit will exit this function.

If both the left and right buttons are pressed at the same time, then the unit will also exit from this function.

The measured values, includes the values from all the activated units in the system.

5 TEST MODE

Program version 1.0 and 1.1:

If the serial input (White) and output (Brown) lines are disconnected from the screw connector and instead closed together, the unit will automatically enter the test mode.

Program version 1.2 to 1.4:

If the serial input line (White) is disconnected from the screw connector and put to the serial common line (Green), the unit will automatically enter the test mode.

Program version 2.0 and later:

If both the left and right buttons are held in at the same time for 3 seconds, the test mode will be activated.

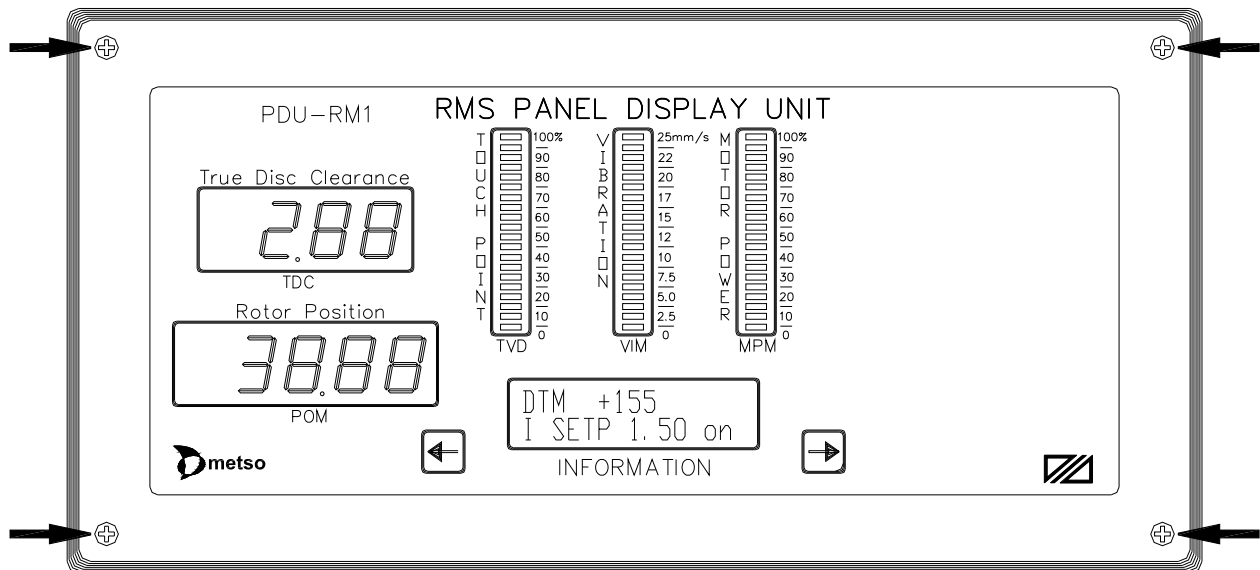
All led-segments will then be activated in order.

6 SETTINGS

	DIP-switch	Function
SW1	1=on + 2=off	RS-485
	1=off + 2=on	RS-232
	3, 4	Not used

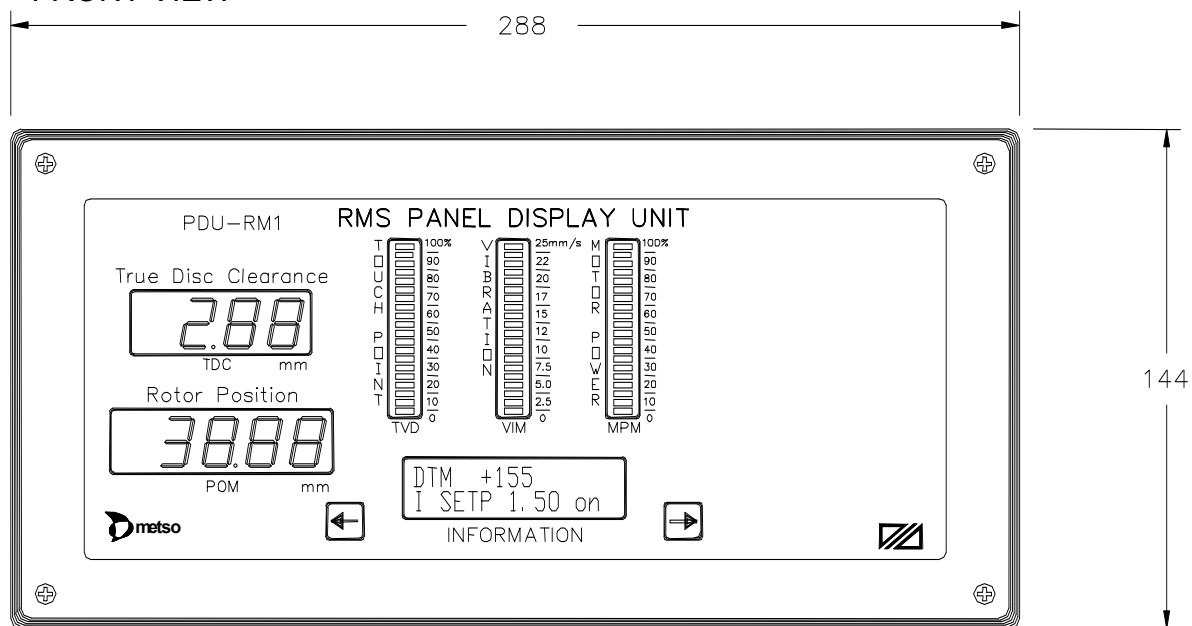
7 MOUNTING INSTRUCTION

- Remove the front of the unit by removing the 4 screws in the corners.
- Place the unit in the panel hole.
- Turn out the mounting flanges behind the panel and lock with the screw.
- Mount the front of the unit.



8 OUTLINE DRAWING

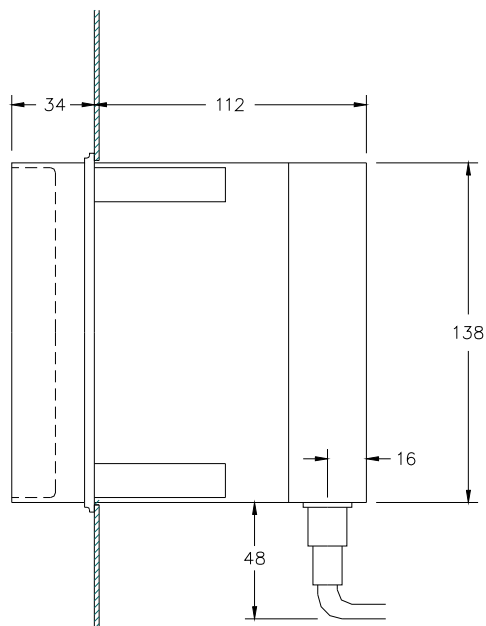
8.1 FRONT VIEW



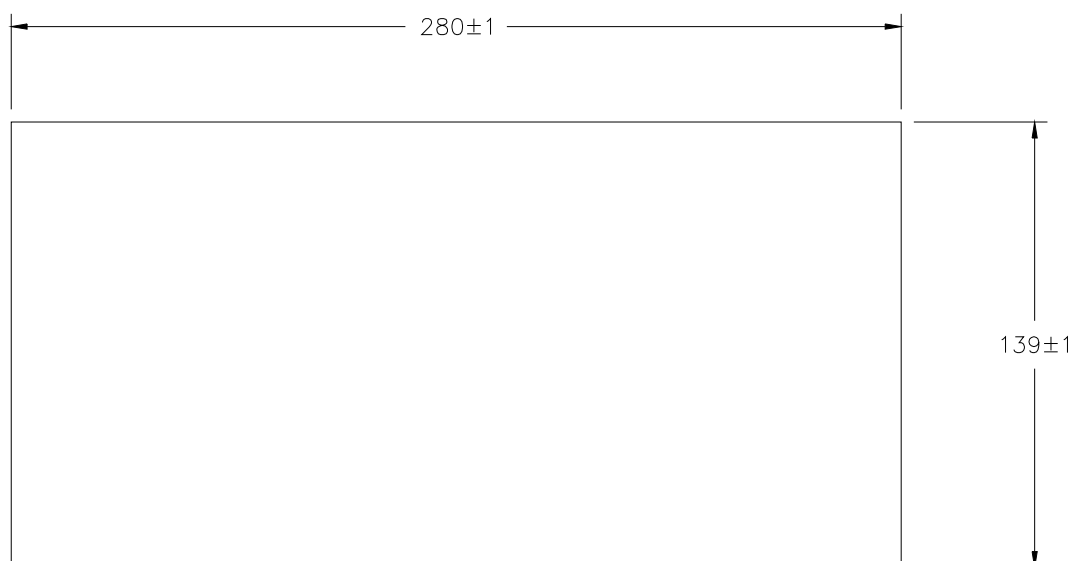
8.2 REAR VIEW



8.3 SIDE VIEW



8.4 PANEL HOLE



9 CONTACT

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