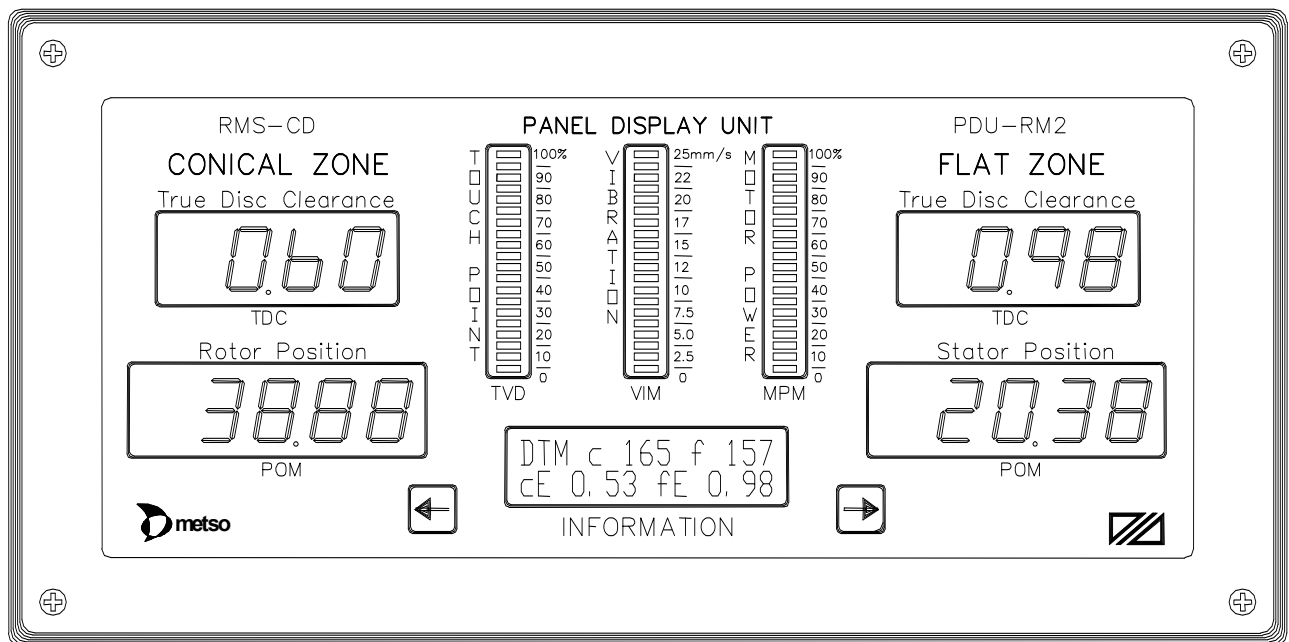


dametric

PDU-RM2

VAL0122988 / SKC9226012



PANEL DISPLAY UNIT FOR THE RMS-CD SYSTEM USERS MANUAL

Valmet 

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1 DESCRIPTION OF OPERATION

The PDU-RM2 is a panel display unit for RMS-CD system. The unit works as a slave display to the DCU-unit in the RMS rack.

Following signals is monitored on 7-segment led digits.

DCA	CC-zone True disc clearance distance	3-digits
DCA	Flat zone True disc clearance distance	3-digits
POM	Rotor Position	4-digits
POM	Stator 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.

Following information is obtained from the DCU-unit in the RMS-system:

Disc Temperature, Analog set limit value to the gap controller, Sum alarm, Feed guard alarm, Regulator alarm, DCA-calibration information.

Measured values in the system can also be displayed, and is controlled by two push-buttons in the front of the unit

2 TECHNICAL SPECIFICATION

Dametric article no.:	PDU-RM2
Metso article no.:	VAL0122988
SKC article no.:	SKC9226012
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 c 165 f 157
cE 0.53 fI 0.98

DTM, Disc temperature, conical and flat side
 cE = CD-regulator activated with external setpoint
 fI = Flat-regulator activated with internal setpoint
 R = Restricted to move together due to low A-chamber pressure
 If "E" or "I" is left out, the regulator is inactive.

3.2 SUM ALARM

SUM ALARM
POMc

This information is indicated if any RMS-unit generates an internal analog 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
CD ZONE (XXXXX)

The "REGULATOR ALARM" indicates an alarm from the CD or the Flat-zone regulator.
 (OVER) Over alarm
 (UNDER) Under alarm
 (SETPOINT) External setpoint out of limits.

3.4 FEED GUARD INDICATION

FG (XXXXXXXX)

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

(contact)	FeedGuard contact
(alarm)	FeedGuard slarm
(retraction)	FeedGuard reset activated

3.5 ++ LIMIT OF THE DCA DEACTIVATED

DCAc ++ DCAf ++

The "DCAc ++" will be presented instead of the DTM values, if the DCA-distance for the conical side is lower than the adjusted ++ limit and if the MPM-value is lower than the LoLow limit.

Further decrease of DCA-distance is not allowed.

"DCAf ++" is the same for the flat side.

The MPM unit must be set on in the UNITS menu to be able to display ++.

3.6 DCA CALIBRATION

TVDc LIMIT XX%

The preset TVDc-limit will be displayed when the calibration of the DCAc-unit is activated.

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

REL POMc -0.10

When the TVDc-unit has reached the limit, the relative POMc-value will be displayed instead.

If the DCAf is selected for calibration, the values from the TVDf and the POMc will be displayed.

4 MONITOR MEASURED VALUES



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.

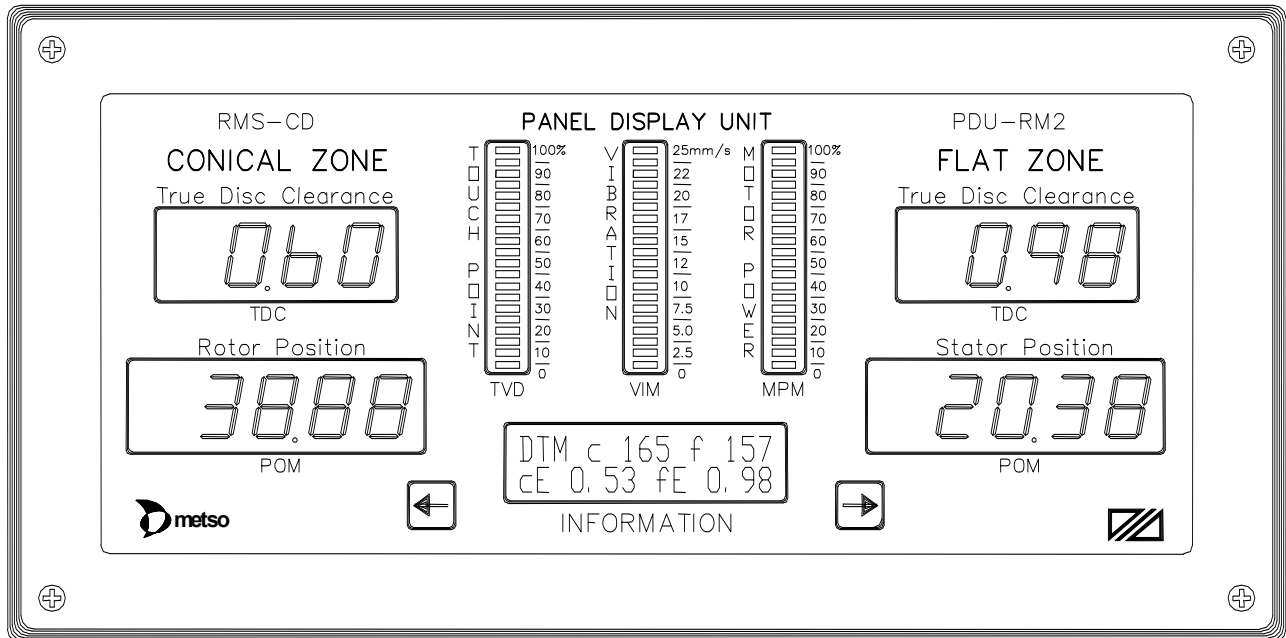
5 TEST MODE

To enter the test-mode, push and hold in both the scroll buttons for at least 2 seconds.

All led-segments will then be activated in order for optical checkout.

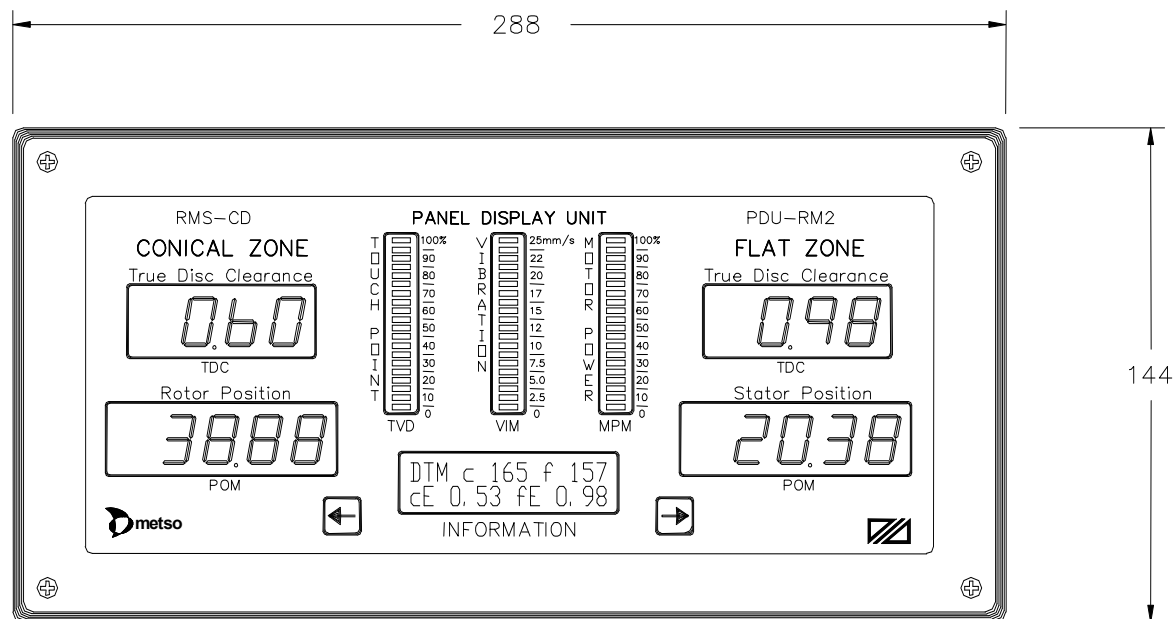
6 MOUNTING INSTRUCTION

- 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.

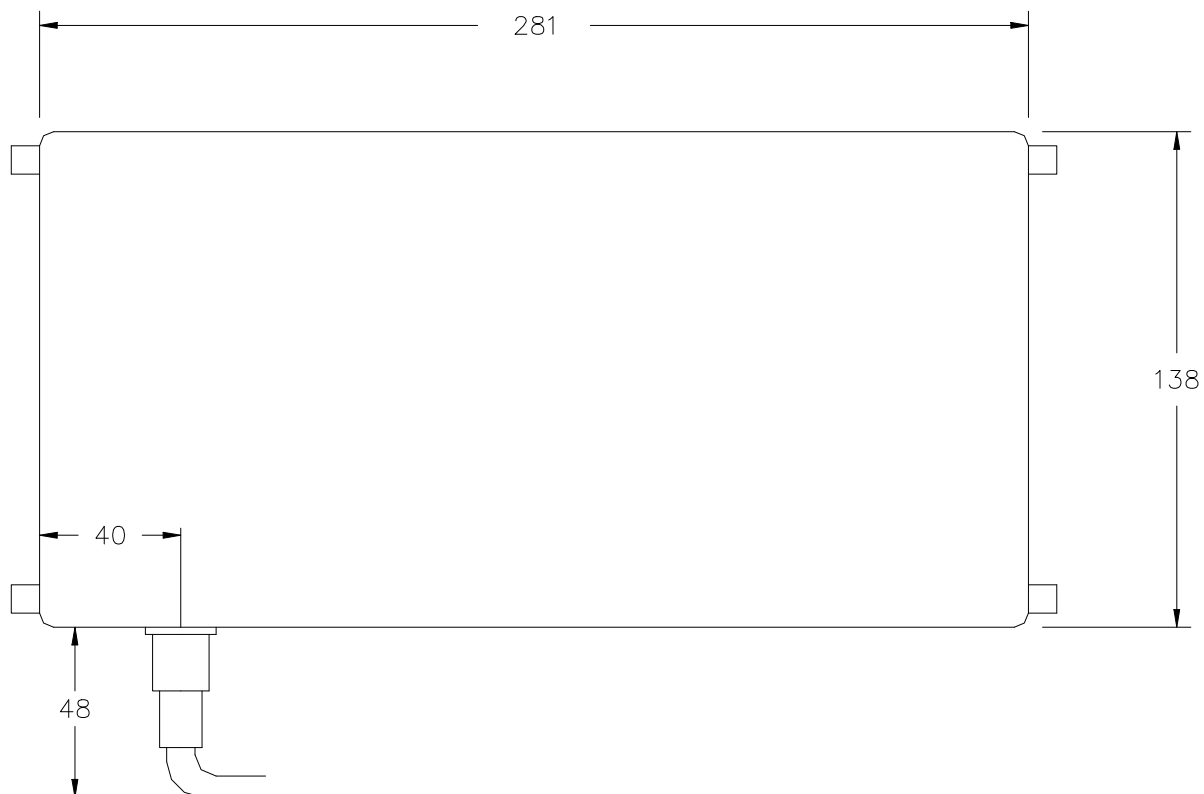


7 OUTLINE DRAWING

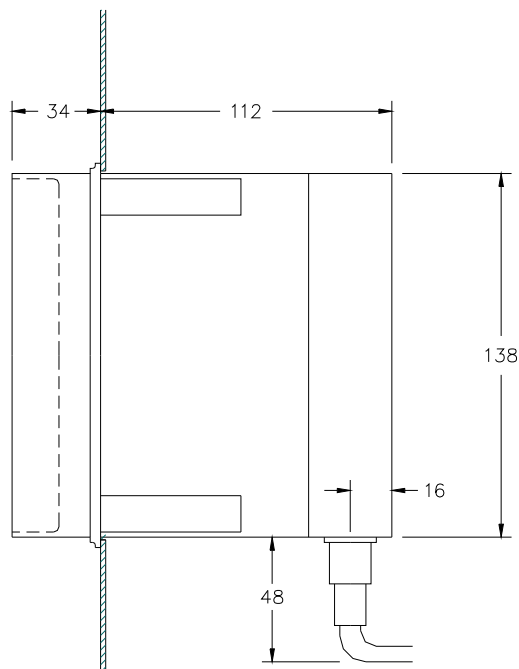
7.1 FRONT VIEW



7.2 REAR VIEW



7.3 SIDE VIEW



7.4 PANEL HOLE



8 CONTACT

Sales, development, production and service:

Dametric AB

Jägerhorns Väg 19, SE 141 75 Kungens Kurva, Sweden

Phone: +46-8 556 477 00

Telefax: +46-8 556 477 29

E-Mail: service@dametric.se

Website: www.dametric.se

dametric 

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