



Detects unusual pump operating conditions including dry-running and overload

The DRN model protects equipment (including pumps) from damage!
Minimizes production downtime.

Identifies possible causes of alarms so they can be investigated and addressed.

Multiple Input — Two analog, one digital, one temperature input and one current input

Easy operation — Equipped with EASY setup mode to remember the operation status and set the lower/upper limit values, as well as AUTO setup mode

Bar graph — Visible indication of current operating status

Logging capability — Data log feature for preventative maintenance scheduling

Communication — RS485 external communication capability

Specifications

Model	DRN-01	DRN-02
Amperometric range	0–30.00A	0–200.0A
Unit's source voltage	AC100–240V 50/60Hz 10VA	
Operating temperature	0–40°C	
Operating humidity	35–85%RH	
Current sensor	JS10FL	JS24FL
Analog input 1	4–20mA or 1–5V	
Analog input 2	4–20mA or 1–5V	
Temperature range	-50–200°C (Pt100, K thermocouple)	
Digital contact input	No-voltage contact signal (also for external reset)	
Contact output	For pre-alarm: AC250V 8A (load resistance) 1c For pump-stopping: AC250V 8A (load resistance) 1a	
Logging capability	Past records (with the calendar)	
Communication	RS485 incorporated	
Supported models	MX, SMX, MXM, MDM, MDE, MDW	
External dimension in mm	D71 x W108 x H90	

* Not used as an inverter.

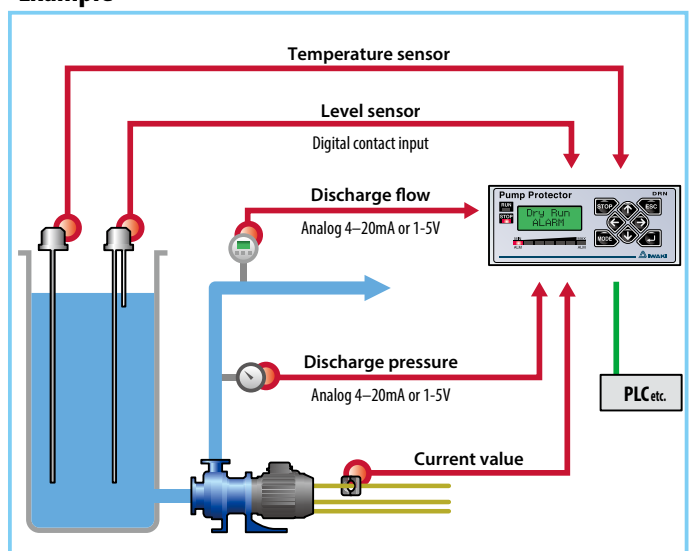
* Safety: UL 61010-1

CAN/CSA-C22.2 No. 61010-1-12
EN61010-1 EN61326-1, EN50581

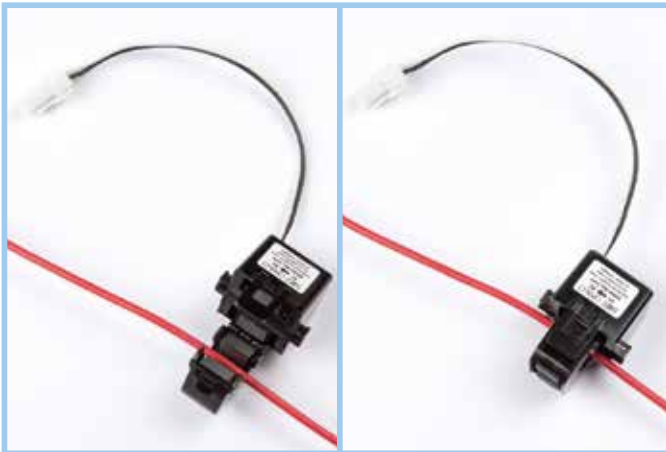
* EMC: EN61326-1

* RoHS: EN50581

Example

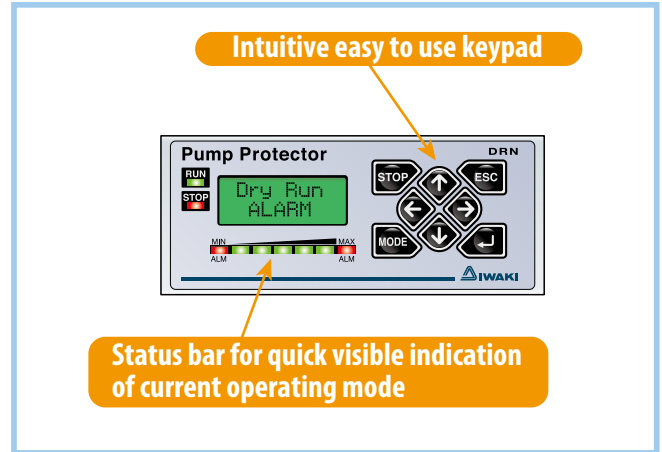


Clamp-type current sensor for ease of installation



No modification of motor leads necessary.

Improved operability and visibility



Normal operation : Green Signal
Abnormal operation : Red Signal

Features

Item	Description
Input	1. Motor current measurement (DRN-01: 0–30.00A, DRN-02: 0–200.0A)
	2. Discharge pressure measurement (4–20mA or 1–5V)
	3. Analog measurement (4–20mA or 1–5V)
	4. Temperature measurement (-50–200°C K-thermocouple or platinum resistance temperature detector Pt100)
	5. Digital contact input (for external reset, setup change or level sensor)
Setup methods	1. EASY setup (set lower/upper limits based on the logged pump status at low/high flow rate)
	2. AUTO setup (automatically set lower/upper limit based on normal pump status)
	3. MANUAL setup (manually set lower/upper limit)
Bar graph display	Visual indication of current pump operation within a programmed range
Log review	The built-in calendar enables review of various items, including:
	1. Time and cause of alarm (20 most recent alarms)
	2. Time of maintenance (10 most recent operations)
	3. Cumulative operating time of a pump and a DRN device
	4. Cumulative number of times MC relay and ALM relay are activated
	5. Setting
Pre-alarm	When measured value exceeds the pre-alarm set value, a pre-alarm is issued before stopping the pump.
Pump-stopping output	When measured value is out of the lower/upper limit range, the pump shut off relay is activated.
Current offset	Offsets the measured current value.
Scaling	Changes the measurement range and unit.
Temperature offset	Offsets the measured temperature.
Maintenance time notice	Displays a notification that the device should be maintained.
Dual detection	Monitors motor current and discharge pressure. When an alarm is activated for either, displays the assumed cause. (LowFlow, OverLoad, DryRun, HighFlow)
Automatic cavitation detection	Automatically detects cavitation and issues a warning.
Communication	RS485 communication.
Other Features	Keypad lock, Initialization.

IWAKI CO., LTD. 6-6 Kanda-Sudacho 2-chome Chiyoda-ku Tokyo 101-8558 Japan TEL : (81)3 3254 2935 FAX : 3 3252 8892 IWAKI has global net work. Please find your distributor location at www.iwakipumps.jp

European office : IWAKI Europe GmbH Germany : IWAKI Europe GmbH Holland : IWAKI Europe GmbH (Netherlands Branch) Italy : IWAKI Europe GmbH (Italy Branch) Spain : IWAKI Europe GmbH (Spain Branch) Belgium : IWAKI Belgium N.V. Denmark : IWAKI Nordic A/S Finland : IWAKI Suomi Oy France : IWAKI France S.A. Norway : IWAKI Norge AS Sweden : IWAKI Sverige AB U.K. : IWAKI Pumps (UK) Ltd.	TEL: (49)2154 9254 0 FAX: 2154 9254 48 TEL: (49)2154 9254 50 FAX: 2154 9254 55 TEL: (31)74 2420011 FAX: (49)2154 925448 TEL: (39)0444 371115 FAX: 0444 335350 TEL: (34)93 37 70 198 FAX: 93 47 40 991 TEL: (32)13 67 02 00 FAX: 13 67 20 30 TEL: (45)48 24 2345 FAX: 48 24 2346 TEL: (358)9 2745810 FAX: 9 2742715 TEL: (33)1 69 63 33 70 FAX: 1 64 49 92 73 TEL: (47)23 38 49 00 FAX: 23 38 49 01 TEL: (46)8 511 72900 FAX: 8 511 72922 TEL: (44)1743 231363 FAX: 1743 366507 ()Country codes	U.S.A. : IWAKI America Inc. Argentina : IWAKI America Inc. (Argentina Branch) Brasil : IWAKI Do Brasil Comercio De Bombas Hidraulicas LTDA. Singapore : IWAKI Singapore Pte Ltd. Indonesia : IWAKI Singapore (Indonesia Office) Malaysia : IWAKI Sdn. Bhd. Australia : IWAKI Pumps Australia Pty Ltd. Hong Kong : IWAKI Pumps Co., Ltd. China : GFTZ IWAKI Engineering & Trading Co., Ltd. : IWAKI Pumps (Shanghai) Co., Ltd. Korea : IWAKI Korea Co., Ltd. Taiwan : IWAKI Pumps Taiwan Co., Ltd. Thailand : IWAKI (Thailand) Co., Ltd. Vietnam : IWAKI Pumps Vietnam Co., Ltd.	TEL: (1)508 429 1440 FAX: 508 429 1386 TEL: (54)11 4745 4116 TEL: (55)19 3244 5900 FAX: 19 3244 5900 TEL: (65)6316 2028 FAX: 6316 3221 TEL: (62)21 6906606 FAX: 21 6906612 TEL: (60)3 7803 8807 FAX: 3 7803 4800 TEL: (61)2 9899 2411 FAX: 2 9899 2421 TEL: (852)2607 1168 FAX: 2607 1000 TEL: (86)20 84350603 FAX: 20 84359181 TEL: (86)21 6272 7502 FAX: 21 6272 6929 TEL: (82)2 2630 4800 FAX: 2 2630 4801 TEL: (886)2 8227 6900 FAX: 2 8227 6818 TEL: (66)2 322 2471 FAX: 2 322 2477 TEL: (84)613 933456 FAX: 613 933399
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Caution for safety use: Before use of pump, read instruction manual carefully to use the product correctly. Actual pumps may differ from the photos. Specifications and dimensions are subject to change without prior notice. For further details please contact us.

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