

## Electromagnetic DC Metering Pump



Iwaki HRP metering pumps enable high-speed, accurate flow in a compact package. Designed specifically for OEM applications, the HRP pump has been sized for easy integration into many types of systems. Multiple control options including proportional, 1:1 digital pulse following, and simple start/stop control, combined with horizontal and vertical configurations enable the HRP pump to be customized for many applications.

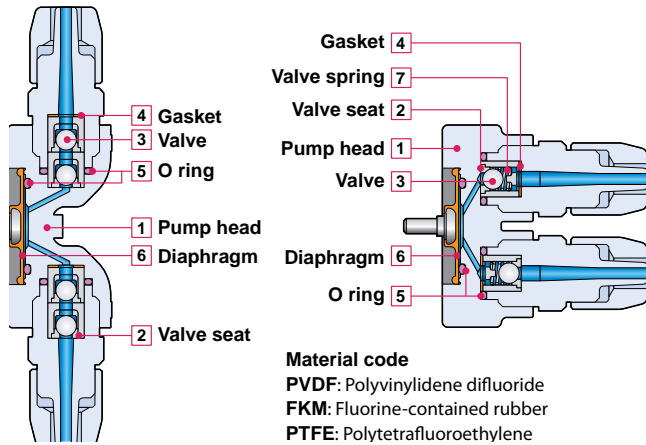
- **Reduce system size** - Ultra-compact (4" x 2" x 3.5") design makes it easy to fit this pump into almost any system.
- **Enhanced portability** - Available in 12 or 24 VDC allows for increased portability of your system.
- **Ease of Integration** - From simple to sophisticated, internal or external control, HRP's 4 different integrated control options ensure a custom fit.
- **Simplify your fluid path** - Vertical or horizontal porting configurations provide a smooth fluid path on every application.

### Standard applications

- Sterilizing/Reprocessing Equipment
- Analytical Equipment
- Chemical Dosing
- Medical Devices
- Water Quality
- Car Wash



## Wet End Materials



| Part         | Material        | Part                                   | Material  |
|--------------|-----------------|--|-----------|
| 1 Pump head  | PVDF            | 5 O-ring                               | FKM       |
| 2 Valve seat | FKM             | 6 Diaphragm                            | PTFE-EPDM |
| 3 Valve      | Alumina Ceramic | 7 Valve spring                         | PEEK      |
| 4 Gasket     | PTFE            | * Other materials available on request |           |

## Model Identification

**HRP - 5 4 V - 1 P 1 - □□**

- Series name**
- Drive unit** (Average power consumption)  
5: 5.6W
- Discharge capacity**  
4: 38mL/min
- Pump head**  
V: Vertically oriented  
H: Horizontally oriented
- Power voltage**  
1: 12VDC  
2: 24VDC
- Special version**
- Connection bore**

| No. | Tube connection bore |
|-----|----------------------|
| 1   | Ø3×Ø6                |
| 2   | Ø4×Ø6                |
| 3   | Ø1/8"×Ø1/4"          |
- Control method**  
P: Pulse control  
A: 4-20mA control  
V: 1-5V control  
S: Stop control

## Specifications

| Model       | Flow Rate ml/min | Max Discharge Pressure PSI (MPa) | Stroke rate spm | Tube connection        | Power Voltage V | Power consumption W | Current A | Weight lbs (kg) |
|-------------|------------------|----------------------------------|-----------------|------------------------|-----------------|---------------------|-----------|-----------------|
| HRP-54V/H-1 | 0.055 - 38       | 29 (0.2)                         | 0-720           | 1/8" x 1/4"            | DC12            | 5.6                 | 1.5       | 1.1 (0.5)       |
| HRP-54V/H-2 |                  |                                  |                 | 3mm x 6mm<br>4mm x 6mm | DC24            |                     | 1.0       |                 |

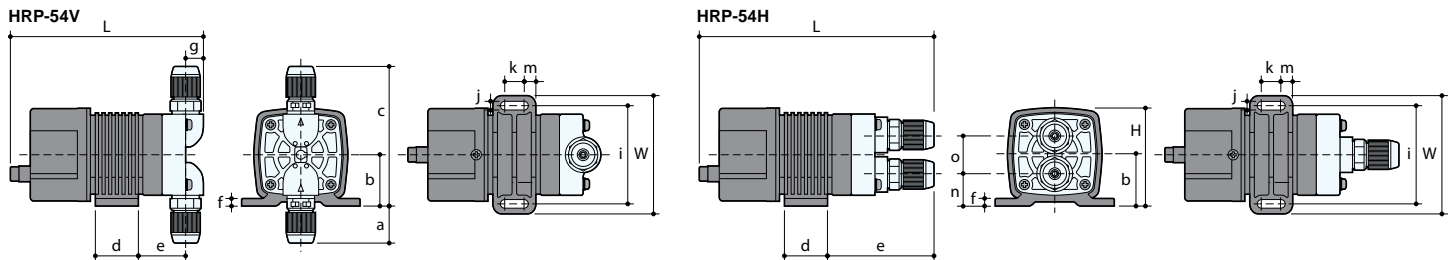
Liquid & ambient temperature 0 - 40°C

Allowable voltage deviation ±5% of rated voltage

## Integrated Control Options

| Control type | Max Speed       | Operation                                  | Input signal  |
|--------------|-----------------|--|---|
| Pulse        | 720 spm         | 1 stroke per pulse (synchronous operation) | Dry contact or open collector                       |
| 4-20mA       | 720 spm         | 4-20 mA proportional to 0 -720 spm         | Analog 4-20 mA DC                                   |
| 1-5VDC       | 720 spm         | 1-5 VDC proportional to 0-720 spm          | Voltage 1-5 VDC (Current capacity of 25 mA or more) |
| Start/Stop   | 720 spm (fixed) | Pump stops during contact input            | Dry contact or open collector                       |

## Dimensions



Dimensions in mm (nominal)

| Model   | W  | H      | L     | a    | b  | c    | d    | e    | f | g    | i    | j   | k  | m | n   | o   |
|---------|----|--------|-------|------|----|------|------|------|---|------|------|-----|----|---|-----|-----|
| HRP-54V | 62 | ---    | (101) | (19) | 27 | (73) | 22.5 | (25) | 4 | 9.5  | 51.5 | 4.5 | 10 | 6 | --- | --- |
| HRP-54H |    | (51.5) | (122) | ---  |    | ---  |      | ---  |   | 5(6) |      |     |    |   | --- | --- |