Robosys Robocon
(Model 130-010)

Special Features

- *Independent valve can be interlocked with SCADA system.*
  (It is applied to any SCADA system because it totally open Modbus Protocol and Data Structure for industrial.)
- *Built-in profile control.*
- *Various control with excellent work.*
- *Built-in 11ports of input signal and 4ports of communication.*
- *Offer program for maintenance.*

Robosys Robocon (Model 130-010) was designed to enable pressure control and flow rate control which is used in water pipe system for effective management of water resources, and maximized profit of flow rate. It can collect and save various information by 8 Analog input signal ports and 3 pulse input signal ports. It is an excellent and useful product to monitor and control current situation of pipe system in real time through 4 communication ports by BALEM SCADA System or Industrial SCADA System for free offer.

Also, It provides 4.3 " LCD touch screen, without be interlocked with the valve for anyone who wants to search function, that they need easily and fast. It can be used only as a function of Date Log with largest capacity internal memory, and it can save during 3 years and various sensor.

【 Pattern & Size 】

Size	Pattern	Operating Pressure	Media	End Connection
50A~300A	Up-right Globe Type	10, 16, 20, 25kgf/cm²	Water, Oil Temperature : 0℃ ~ 80℃	According to Customer Request
	Angle Type			
50A~1000A	Y-type Globe			

Sensor
- Inlet pressure
- Outlet pressure
- V.O.R
- Flow rate
- ····

Communication
- Modem
- LAN
- SERIAL (RS 232 / CDMA / Leased line modem)
- RS 485

Components	Materials		
	Standard		Optional
	50~350A	400~1000A	
Body & Cover	Ductile Iron	Cast Steel	SSC 13
Diaphragm Washer & Disc	Ductile Iron	Cast Steel	SSC 13
Cover Plug & Bearing	SSC 13		
Shaft & Seat	STS 304		
Diaphragm	N.R / C.R / N.B.R		
Disc Seal	N.R / C.R / N.B.R		

⊙ NSF/ANSI Standard 61 Epoxy Powder Coating Standard
⊙ Nylon 11 Coating available (Rilsan Coating) : Optional

- *Balem Co., Ltd provides various control methods for efficient and precise water resource management.*
  As it equips motor drive to existing pilot valve and pipe line system manager operate, so it can control Pressure & Flow automatically.

- *It can apply to profile of setting per 5minutes all Day, Monthly, Daily, Off daily and weight(±) in various conditions. It can control more safely and correctly used by changing pressure data at control time.*

Controller Specifications

- **4~20mA Analog port -**
  Inlet pressure, Outlet pressure, V.O.R, Flow rate, C.P, P.A.S, Aux1, Aux2
- **Digital port** - Total flow, Aux1, Aux2

- Voltage : 24V DC (Need External Power)
- Power Consumption : 5W
  (Can be increased by the number of sensors)
- Size : 280 X 219 X 156(mm)
- Input : 4~20mA Analog Port-8, Digital Port-3
- Display : 4.3˝(480X282) TFT LCD TSP
  (Touch Screen Panel)
- Communication : RS 232 / RS 485,
  LAN (Option : Modem, Leased line modem, CDMA)
- Case : IP67 Submersible

⊙ Please write down when you order,
how many and what kind of port do you need.

Pilot Valve with Motor Control

Description	Item
BALEM 130 (Robocon Valve)	1
Pressure Reducing Pilot Valve	1
Pressure Gauge	2
Needle & Strainer	1
Cock Valve	2
Motor Actuator	1
Robosys Controller	1

Motor Control Specification

- Voltage : 24V DC
  (Using power of RS-1102)
- Operating Pressure : 0.5~25kgf/cm2
- Gear Ratio : 1/721
- Encoder : 2 Channel 26 Pulse
- No Load Speed R.P.M : 9
- Rated Torque (Kg•Cm) : 12
- R.P.M : 8.3

Hycon Actuator Valve Control

Description	Item
BALEM 130 (Robocon Valve)	1
Pressure Reducing Pilot Valve	1
Pressure Gauge	2
Needle & Strainer	1
Cock Valve	2
Hycon Actuator	1
Robosys Controller	1
Flow Controller	1

Solenoid Valve Control Specification

- Voltage : 24V DC
  (Using power of RS-1102)
- Operating Pressure : 0.5~25kgf/cm2
- Coil Insulation : Coil Insulation Class B
- Voltage Allow : ±10%
- Material of Solenoid Body : Brass

Combined Solenoid Valve Control

Description	Item
BALEM 130 (Robocon Valve)	1
Needle & Strainer	1
2-Way Solenoid Control Valeve (Normal Close)	2
Pressure Gauge	2
Cock Valve	2
Robosys Controller	1

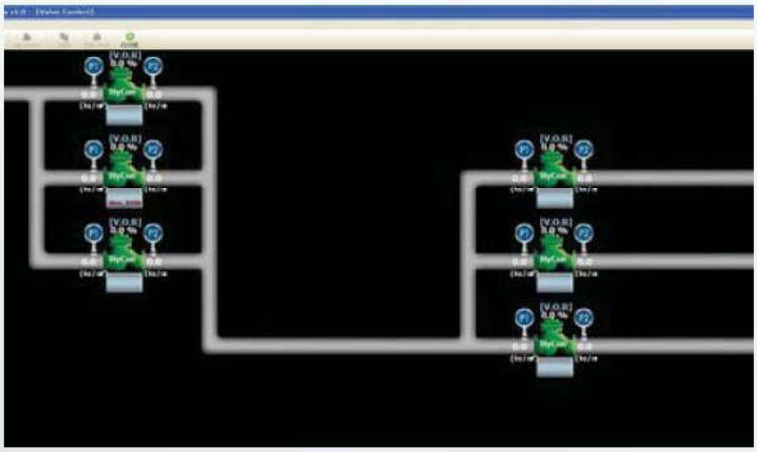
Solenoid Valve Control Specification

- Voltage : 24V DC
  (Using power of RS-1102)
- Operating Pressure : 0.5~25kgf/cm2
- Coil Insulation : Coil Insulation Class B
- Voltage Allow : ±10%
- Material of Solenoid Body : Brass

⊙ The power consumption may vary with the sensors.

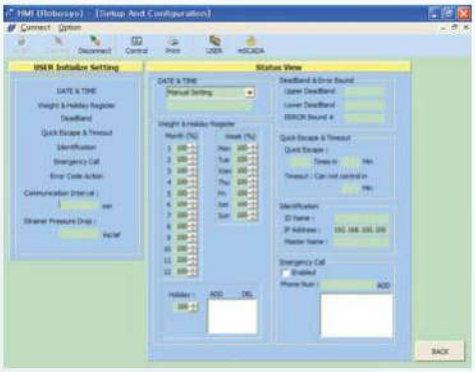
BALEM SCADA System

◈ Pipeline monitoring system set-up



▲ Real time monitoring is available on either series piping or parallel piping.

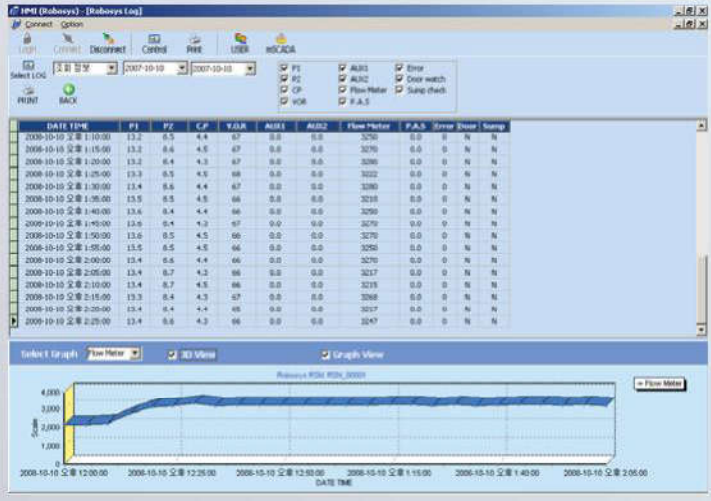
▼ Environmental set-up modification on ROBOSYS.



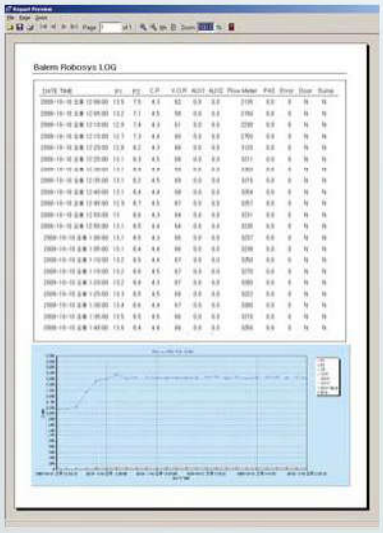
Profile modification and modification control on ROBOSYS ▶

◈ System data reading & saving function

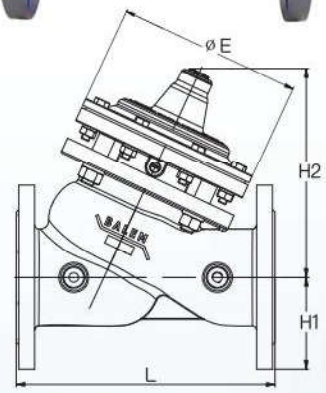
You can read and save pressure, flow rate, V.O.R. by installing relative sensors.



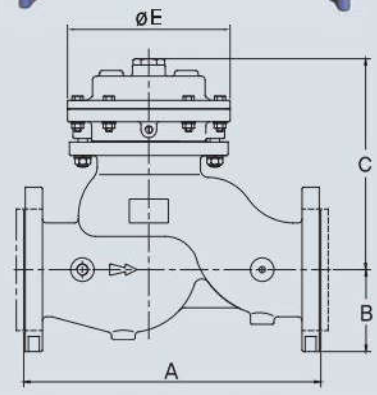
◈ Data reporting function



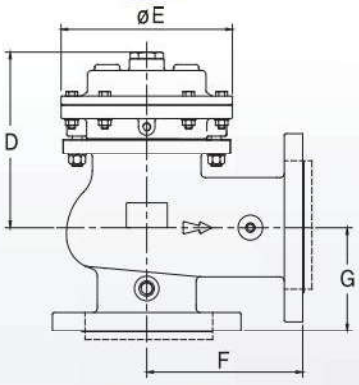
Dimensions



Y-type Globe



Up-right Globe Type



Angle Type

▼ Up-right Globe Type & Angle Type

Valve Size (mm)	50	80	100	150	200	250	300
A	238	305	381	508	645	756	864
B	78	93	105	140	165	200	223
Cmax	200	240	275	375	470	535	625
Dmax	157	179	206	284	360	420	465
ØE	140	165	208	326	408	497	562
F	119	152	191	254	322	378	432
G	83	102	127	152	203	219	349

▼ Y-type Globe

Valve Size (mm)	50	65	80	100	125	150	200	250	300	350	400	500	600	700	800	900	1000
L	230	290	310	350	375	480	600	610	700	730	910	1010	1200	1400	1480	1650	1800
H1	78	88	100	110	125	143	175	205	230	265	300	380	420	500	565	590	640
H2	188	211	236	270	313	353	461	519	615	629	753	893	1030	1255	1412	1461	1584
ØE	135	154	180	220	260	305	380	455	545	545	705	794	934	1160	1215	1315	1400

Installation Tips!

1. *Prior to installing the valve, flush the pipe line to clean inside.*
2. *Provide an adequate clearance for servicing.*
3. *The arrow on the valve body must be observed to match with the actual flow direction in pipe line.*
4. *It is recommended to install the valve horizontally to ensure proper running of the valve, But the other position is also acceptable.*
5. *Install isolation valves on both sides of the control valve for maintenance and check.*
6. *A strainer must be installed on the upstream of the control valve.*