

ONLINE MONITORING SYSTEM:

Use Our VdS(Germany) approved Online Weighing Device - Mechanical Indicator Type - Part No : IH006RV

A comprehensive approach to monitor weight of fire extinguishing agent

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IH006RV

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Online Monitor Mechanical Indicator Type

Introduction

Online Monitoring System is used in Gas based Fire Extinguishing system like CO₂, FM-200, Inert System, FK-5112 System to monitor weight of the agent in the cylinder to meet NFPA, OISD & IS standards.

Necessity of the System

As per the OISD standards 142 1996 (Ref. Clause 7.2.2), Fixed Carbon di-oxide Fire Extinguishing system. ie. Refilling: Loss in weight of cylinders shall be checked once in 3 months. Refilling should be done if loss in weight is more than 10%.

As per IS15528-2004, As per IS 15528, all high pressure cylinders shall be weighed atleast once in 6 months.

As per NFPA-12, quantity of gas should be checked at least once in 6 months.

Advantage of the System

Fire extinguishing efficiency depends on the correct design concentration of extinguishing gas. If the gas loss due to leakage or any other reason, cylinder has to be refilled for designed quantity. It is very obvious, continuous monitoring of the gas weight is required.

This requirement is simply fulfilled by Online Monitoring System.

Without this system, once in 3 months / 6 months each cylinder is to be removed from the cylinder bank and weight is to be measured. After measuring the weight, again cylinders are to be re fixed and re commissioned for proper function.

This is time-consuming process for maintenance department with highly skilled manpower.

System Description

The system consists of

1. Online Monitor - Mechanical Indicator Type. Part No.IH006R, IH006R V & IH006-SS
2. Online Monitor - Analogue LED Type. Part No.IH007R NI
3. Online Monitor Control Panel Part No.IH009R
4. Online Monitor Control Panel Part No.IH009R-2A

Working Principle

Each cylinder requires one online Monitor. The cylinder should be fixed in hanging condition through online Monitor. When the weight of the CO₂ gas is reduced below 10%, the Low weight is indicated, by means of LED indication.

Online monitor Control Panel provides required supply for weight monitoring unit. This panel also supervises the wire connection for open and short condition. On receipt of Low weight Indication from the cylinder bank; the panel gives Audio and Visual Indication. 2 set of potential free NO and NC contacts are available for remote indication or any other relevant signaling.



The panel works on 230 V AC or 24 V DC from Fire alarm panel. Maximum 25 Nos. of online monitor can be connected with the IH009R Control Panel.

ONLINE MONITOR - MECHANICAL TYPE: PART No.: IH006R

General

Online Monitor is used in gas based fixed fire extinguishing system

Each cylinder requires one online Monitor. The cylinder should be fixed in hanging condition through online Monitor. When the weight of the extinguishing agent is reduced below 10%, the Low weight is indicated, by means of downward movement of counter weight.

Features

➤ Counter weight position can be adjusted by moving forward & backward.

- Weight of counter weight can be varied which provide wider flexibility to use IH006 for various size of cylinder range from 20kgs to 200kgs.
- Further remote indications is possible by using limit switch (Ex.Proof / Non Ex.Proof).
- Cylinder ring matches the standard thread of cylinder neck.
- For non-standard threads, suitable ring will be provided.
- Hanger rod of standard length is used with ring to hang the cylinder.
- One device is required for each cylinder.



IH006R
ONLINE MONITOR - MECHANICAL TYPE

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IH006RV
Online Monitor
Mechanical Indicator Type



IH006RV
ONLINE MONITOR - MECHANICAL INDICATOR TYPE

PART No.: IH006-SS

SUITABLE FOR OFF SHORE, ON SHORE & CORROSIVE ATMOSPHERE APPLICATION:

General

IH006-SS is specially manufactured using SS316 as material of construction for all the parts.

Which can be used in off shore, on shore & Corrosive atmosphere application.

Features

➤ Counter weight position can be adjusted by moving forward & backward.

- Weight of counter weight can be varied which provide wider flexibility to use IH006 for various size of cylinder range from 20kgs to 200kgs.
- Further remote indications is possible by using limit switch (Ex.Proof / Non Ex.Proof).
- Cylinder ring matches the standard thread of cylinder neck.
- For non-standard threads, suitable ring will be provided.
- Hanger rod of standard length is used with ring to hang the cylinder.
- One device is required for each cylinder



IH006-SS
SS ONLINE MONITOR - MECHANICAL TYPE



COLLAR ASSEMBLY

SPLIT COLLAR ASSEMBLY

FLANGE TYPE COLLAR ASSEMBLY



ONLINE MONITOR - ELECTRONIC TYPE: PART No.: IH007R NI & IH007R NI- 4W

General

Online Monitor Normal Indication is used in Gas based Fire Extinguishing System to monitor the weight level agent in the cylinder. When the quantity of the gas is reduced below 10% of its original filled quantity, the alert Indication (YELLOW LED) is shown.

Features

- LED indications for Normal condition & low weight of agent.
- Cylinder ring matches the standard thread of cylinder neck
- For non-standard threads, suitable ring will be provided.

- Hanger rod of standard length is used with ring to hang the cylinder.
- Low weight indication can be calibrated at the site if required.
- Device is powered directly by two wires from online Monitor control panel Part no. IH009R
- Plug in type simple connection from one device to another.
- One device is required for each cylinder
- 24V Signal supply is derived from control unit. No current consumption by Online Monitor during normal condition. While low weight indication is ON maximum current consumption will be 10mA.



IH007R-NI
ONLINE MONITOR -
ANALOG LED TYPE



IH007R NI - 4W
ONLINE MONITOR WITH LED
INDICATION TYPE
(4WIRE INPUT)

ONLINE MONITOR CONTROL PANEL: PART No.: IH009R & IH009R-2A

General

Online Monitor Control Panel supervise and indicate the status of Online monitors, which are holding the gas cylinders, used in gas based fire suppression/ extinguishing system.

Features

- Input supply voltage available in 24V DC / 230V AC / 110V AC, 50Hz Operating voltage 24V DC.
- Lamp test, acknowledge and reset control switches.
- System ON Green LED, Low weight orange LED, open and short Yellow LED.
- Inbuilt fault buzzer of continuous tone.

- Two wire style B wiring is provided to connect gas weight monitor.
- Control Panel provides only common low weight indication per zone. [Individual low weight indication is available on gas weight monitor].
- This is single zone control panel.
- Inbuilt low weight indication buzzer (intermediate tone).
- Supervision facility for open and short of connecting cable of gas weight monitor.
- Maximum gas weight monitor per unit restricted to 20 nos in IH009R.
- Provision of one set of low weight fault repeating potential free NO and NC contact of rating 6 amp at 24V DC.
- Wall mounting type suitable for indoor application.
- Multi zones control panel are available.

IH009R
ONLINE MONITOR CONTROL PANEL - SINGLE AREA



IH009R-2A
ONLINE MONITOR CONTROL PANEL - 2 AREA





AGNI CONTROLS



ONLINE MONITOR - COLLAR ASSEMBLY:

COLLAR ASSEMBLY

- ✓ IH006R P3- Φ80MM – COLLAR ASSEMBLY- Φ80MM INCLUDING 1 PAIR HANGING ROD OF SIZE * (* - Hanging Rod size)
- ✓ IH006R P4- Φ95MM COLLAR ASSEMBLY - Φ 95MM - INCLUDING 1 PAIR HANGING ROD OF SIZE * (* - Hanging Rod size)

SPLIT COLLAR ASSEMBLY

- ✓ IH006R P3/SP SPLIT COLLAR ASSEMBLY - Φ 80MM - INCLUDING 1 PAIR HANGING ROD OF SIZE * (* - Hanging Rod size)
- ✓ IH006R P4/SP SPLIT COLLAR ASSEMBLY - Φ 95MM- INCLUDING 1 PAIR HANGING ROD OF SIZE * (* - Hanging Rod size)

Hanging Rod Size – 195 / 275 / As per Customer Requirement

FLANGE TYPE COLLAR ASSEMBLY

- ✓ IH006R P7- Φ80MM – FLANGE TYPE COLLAR ASSEMBLY INCLUDING 1 PAIR HANGING ROD OF SIZE * (* - Hanging Rod size)
- ✓ IH006R P6- Φ80MM FLANGE TYPE COLLAR ASSEMBLY - Φ 95MM - INCLUDING 1 PAIR HANGING ROD OF SIZE * (* - Hanging Rod size)

SPLIT FLANGE TYPE COLLAR ASSEMBLY

- ✓ IH006R P7/SP SPLIT FLANGE TYPE COLLAR ASSEMBLY - Φ 80MM - INCLUDING 1 PAIR HANGING ROD OF SIZE * (* - Hanging Rod size)
- ✓ IH006R P6/SP SPLIT FLANGE TYPE COLLAR ASSEMBLY - Φ 95MM- INCLUDING 1 PAIR HANGING ROD OF SIZE * (* - Hanging Rod size)

Hanging Rod Size – 195 / 275 / As per Customer Requirement

Other Range of Components :



IH 012
CO₂ Nozzle
with cone horn



IH011 Series...
CO₂ Nozzle with cone horn
suitable to fit in the
machinery / small area.



IH 324 / *
Wintergreen Odorizers
suitable for *Cylinder Bank Arrangement
(* No. of Cylinders)



IH018-R
Non-Return Valve
suitable for
CO₂ Master Cylinder



IH019
Non-Return Valve
suitable for CO₂ Slave Cylinder



IH138
Manifold Safety Valve



BIH302
PILOT CYLINDERS
Suitable for CO₂ / Inert Gas
Suppression System to Operate
Slave Cylinder valves /
one No. Directional valve
pneumatic actuator.

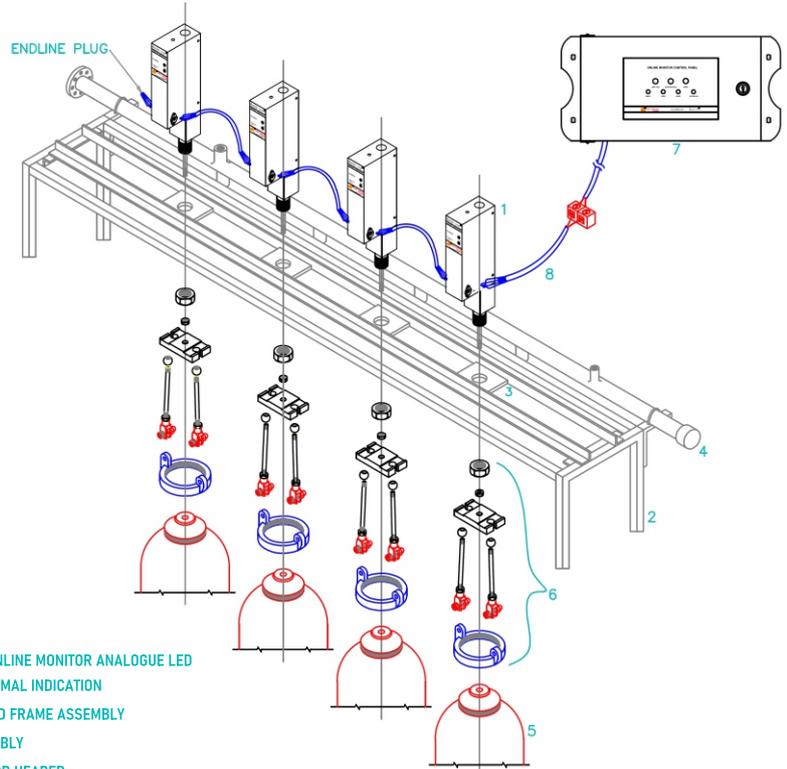


IH015*
* NB CO₂ Directional valve
with pneumatic actuator
& Limit Switch
(* - 20/25/32/40/50NB)



IH237*
* NB Manual Lock-out Valves
with supervisory Limit Switch
(* - 20/25/32/40/50NB)

TYPICAL SCHEME FOR 2 WIRE ONLINE MONITORING SYSTEM



NOTE:

- 1- IH007R NI ONLINE MONITOR ANALOGUE LED TYPE WITH NORMAL INDICATION
- 2- IH030-4S WD FRAME ASSEMBLY
- 3- RAIL ASSEMBLY
- 4- MANIFOLD OR HEADER
- 5- BIH048/* - Co2 CYLINDER
- 6- IH006R-P3/P4 CYLINDER COLLAR WITH HANGER ROD ASSEMBLY
- 7- IH009R ONLINE MONITOR CONTROL PANEL
- 8- CONNECTING CABLE - 2 WIRE SYSTEM

Other Range of Products & Systems

Fladet SERIES...
THE GLOBAL INDIAN BRAND



bala-wa SERIES...

balawa series... GAS SUPPRESSION SYSTEMS



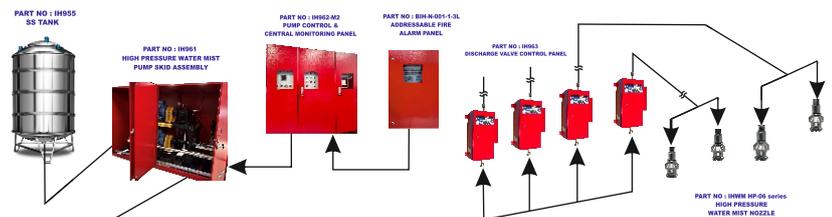
bala-wa SERIES...
Fixed High Pressure CO₂ Fire Suppression System
bala-wa 400 / 545 / 55 SERIES...
IS 542 / IS 53 / IS 503 Inert Gas Fire Suppression System

Defaoo SERIES...



Specially designed clean agent systems to
extinguish fire at origin

bala-wa-mist SERIES...
LOW / HIGH PRESSURE WATER MIST SYSTEM



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Important :

This document is not intended to be used for installation purposes. Specifications are subject to change without prior notice.