HENRY
TECHNOLOGIES

IntelOil

Electronic Oil Controller

Integral Diagnostics

Compact and Lightweight



MWP of 60 barg and120 barg

High Resolution Float Sensor

Supplied with 3m Power and Relay Cables

230 Volt & 24 Volt versions available

henrytech.com

INTELOIL CONTROLLER

The function of the IntelOil Controller is to monitor and maintain the oil level in the compressor crankcase using proven high resolution float sensor technology. This protects the compressor from damage.

Applications
The IntelOil Controller is suitable for low and high pressure oil management systems. It is designed for use with both scroll and reciprocating compressors.

The oil controller is approved for HCFC, HFC and CO_2 refrigerants and their associated oils.

How it works
The IntelOil Controller regulates the oil level in the compressor crankcase by means of a Hall effect sensor and a float assembly with built-in magnets. As the oil level rises or falls, variations in the magnetic field strength of the float assembly are detected by the sensor. These are converted to a variable voltage and read by the electronic unit. This, in turn, updates the status LEDs and, if necessary, triggers the solenoid valve to feed oil to the compressor. If the required oil level is not reached in the allotted time, the alarm contact switches and can be used to operate an alarm or shut down the compressor.

Oil level controllers are designed to attach to the sight glass housing on the compressor crankcase. Adapter kits are available for both scroll and reciprocating compressors. Oil supply to the IntelOil unit is via a 1/4" flare connection.

Main Features
- High resolution float sensor
- Integral diagnostics
- Supplied with 3m power and relay cables
- Reliable performance even with foaming or dirty oil
- Compact and lightweight
- Precise level sensing
- Low energy solenoid valve
- Easy to install adapters
- Alarm relay

Models
- HOC1-24-3 (24V AC with 3m power and relay cables)*
- HOC1-230-3 (230V AC with 3m power and relay cables)*
- HOC1H-24-3 (24V AC with 3m power and relay cables)*
- HOC1H-230-3 (230V AC with 3m power and relay cables)*

*Adapter kits sold separately.



Technical Specification

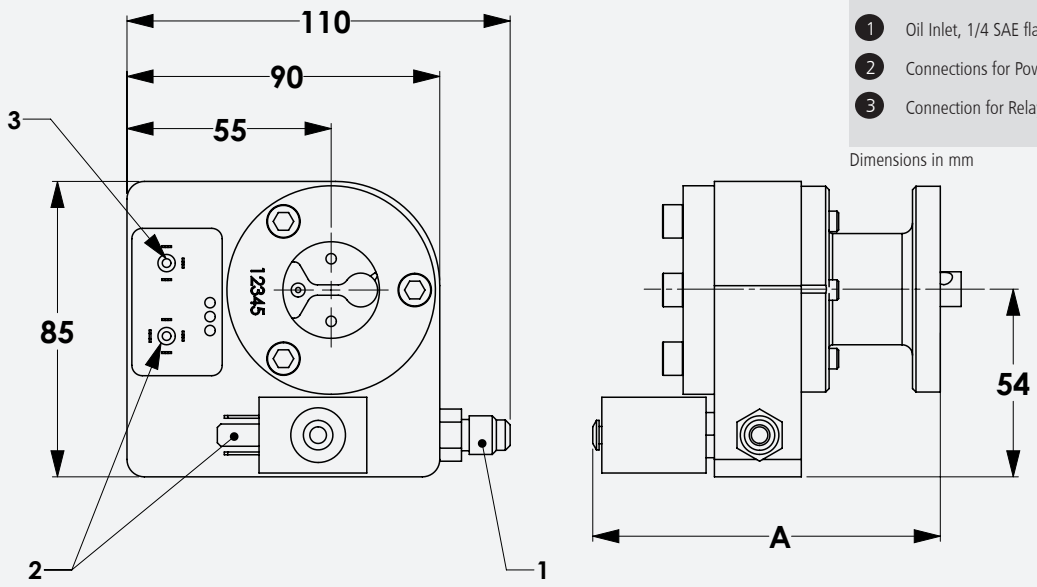
Allowable operating pressure:	0 to 60 barg (HOC1) 0 to 120 barg (HOC1H)
Maximum differential pressure:	25 barg (HOC1) 45 barg (HOC1H)
Maximum ambient temperature:	50°C
Maximum fluid temperature:	80°C
Supply voltage:	24V AC or 230V AC 50/60 Hz
Rated operating current:	0.4 Amps (24V AC) 0.04 Amps (230V AC)
Electrical connection:	Moulded plugs connect to oil controller
Alarm contact:	Volt free, normally closed**
Alarm contact rating:	Max. 3 A, 230V AC, voltage free
Wiring: Power supply: Alarm contact:	Flying leads on designated cables Brown, blue & green-yellow wires Blue, black & brown wires
Protection class:	IP 65
Status LED's:	3
Oil inlet connection:	1/4 SAE Flare
Weight:	HOC1: 0.94 kg HOC1H: 1.0 kg

CE marked for EMC and Low Voltage Directive

Approvals: EAC

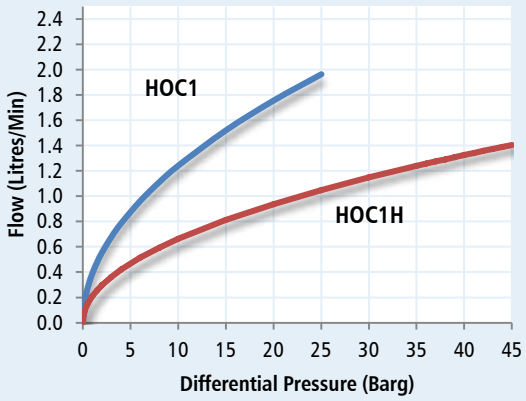
**Alarm contacts are open when power is applied and oil level is good.

Materials of Construction
The main pressure retaining parts are made from aluminium alloy and plated steel (sight glass). The electronic control module's cover is made from polycarbonate.



INTELOIL CONTROLLER

Adapter	A(mm) Installed
H12070	101
H12071	85
H12072	85
H12073	81
H12074	100
H12075	96
H12076	85



Flow rate data
The flow rate of oil through the IntelOil Controller is dependent on the pressure differential between the supply line and the compressor crankcase. If applicable, gravity pressure level should be included. The graph illustrates typical flow rates at various pressures. The flow rates shown are measured in water at a temperature of 20°C.

Installation - Main issues
1. The electronic module will be damaged if the 24V/230V supply voltage is exceeded.
2. Power to the unit should be maintained during compressor running, stand-by and shutdown modes.
3. To protect the oil controller from system debris, a filter drier is recommended.

INTELOIL ADAPTERS			
Part No	Compressor Type	Mounting Style	Weight (kg)
H12070	Multi-Adapter	3 & 4 bolt combination flange with O-ring	0.13
H12071	Bitzer/Bock/Copeland	1 1/8"-18 UNEF thread with O-ring	0.08
H12072	Dorin	1 1/8"-18 UNEF thread with aluminium seal	0.08
H12073	Copeland Scroll	3/4"-14 NPTF	0.07
H12074	Copeland Scroll	1 3/4"-12 UN thread Rotalock with teflon gasket	0.14
H12075	Copeland Scroll	1 1/4"-12 UNF thread Rotalock with teflon gasket	0.11
H12076	Danfoss/Maneurop	1 1/8"-18 UNEF thread with O-ring and adapter ring	0.08

INTELOIL CABLES	
Part No	Description
HOC-P300***	Power Cable 3mtr.
HOC-S300***	Relay Cable 3mtr.
HOC-P600	Power Cable 6 mtr.
HOC-S600	Relay Cable 6 mtr.

***Supplied with each IntelOil.

The information contained in this brochure is correct at the time of publication.

Henry Technologies has a policy of continuous product development; we therefore reserve the right to change technical specifications without prior notice.

Extensive changes within our industry have seen products of Henry Technologies being used in a variety of new applications. We have a policy, where possible, to offer research and development assistance to our clients. We readily submit our products for assessment at the development stage, to enable our clients to ascertain product suitability for a given design application.

It remains the responsibility of the system designer to ensure all products used in the system are suitable for the application.

For details of our warranty cover, please refer to our standard terms and conditions of sale. Copies are available on request.

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