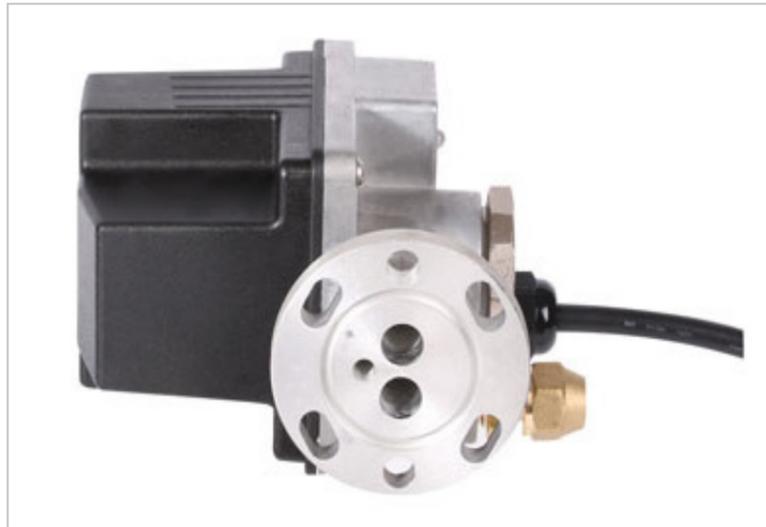


OUT280 Oil Level Regulator



OUT280 monitors and controls the oil level in the refrigerant compressors. In particular, the problem of bad oil distribution in multi-compressor packs is solved, thanks to active oil supply from a shared oil reservoir. The oil level regulator keeps the oil level between 40% to 60% height of the sight glass.

Features

- Provides maximum protection to compressors by precise oil level control;
- Alarm and status indication by LED;
- Free of error operation for oil foam and steam by optical measuring principle;
- High quality integral solenoid valve and High anti-fouling;
- 180° reversible mounting;
- Applicable to HIGH and LOW pressure oil management system;

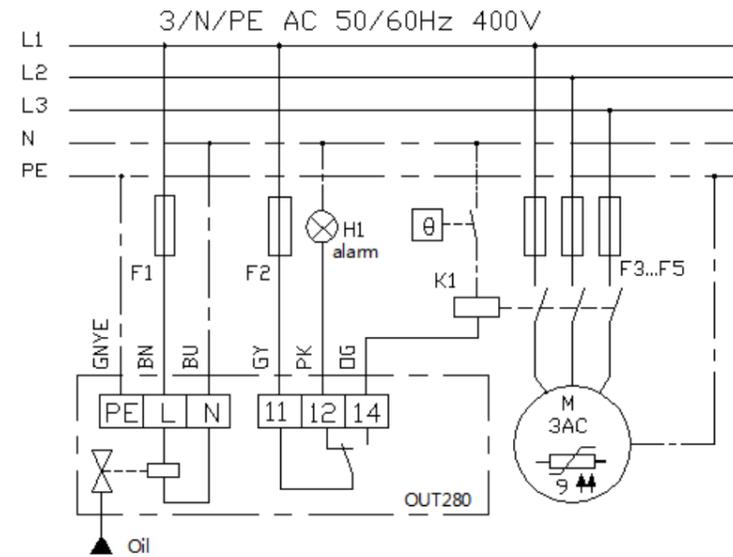
Functional description

After the OUT280 is switched on, the alarm relay picks up after 3S, if no malfunction is present (closed-circuit principle). Regardless of the oil level, a 20s pause is activated, to allow the oil to settle. If, thereafter, a too low oil level is detected, the solenoid valve switches to oil injection, in a specified cycle: fill 5s/ wait 5S, fill 10s/ wait 10s, fill 20S/ wait 20s, fill 30s/ wait 30s; If ,after 135s, an adequate oil level has not been reached, the alarm relay drops out. The last filling cycle that has been reached (fill 30s and wait 30s) stays active. If an adequate oil level has been reached, the alarm relay picks up again after a waiting time the filling cycle is reset. If there is a device malfunction (e.g. low supply voltage), the alarm relay drops out and is locked, regardless of the oil level, after approx. 5s. no filling procedure is performed. The lock can be released by interrupting the voltage supply for at least 5s. An LED positioned next to the sight glass visually signals the respective operating status.

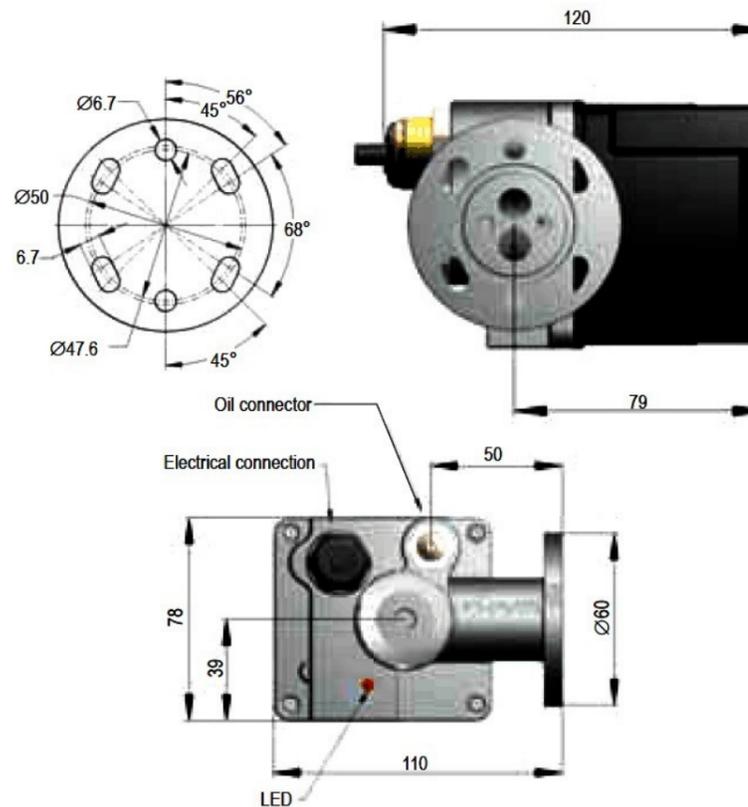
Installation instructions

- Prior to installation, ensure that the O-ring at the connecting flange is seated properly.
- The electrical connection needs to be carried out with correct supply voltage and frequency according to the wiring diagram.
- For use at low temperatures, an oil sump heater has to be installed, to ensure trouble-free operation of the device.
- An oil filter has to be installed in the oil infeed line of the OUT280, to prevent the solenoid valve seat from getting dirty.
- Before the OUT280 is switched on for the first time, the oil level should already be at 1/4 of the sight glass, to prevent the alarm relay from being deactivated.

Wiring diagram (suggestion)



Dimensions in mm



Technical specifications

Supply voltages(see type plate)	AC 50/60Hz 230V±10%	18VA
	AC 50/60Hz 115V±10%	18VA
	AC 50/60Hz 24V±10%	18VA
Permitted ambient temperature	-30...+60 °C	
Permitted rel. humidity	10...95%, without condensation	
Medium temperature	-30...+100 °C	
Operating pressure	-1...46bar	
Test pressure	69bar	
Max. differential pressure	25bar	
Output relay	AC 240V,2.5A, C300; > 24V AC/DC > 20mA	
Mechanical service life	Approx. 10 ⁶ switching cycles	
Connecting cable	6xAWG18 (0.75mm ²) ; length 1m, colour coded and numbered+GNYE	
Protection class	IP65	
Housing material	Aluminium; PA66/PA6+GF	
Flange connection	3-/4-hole flange	
Oil connection	7/16"-20 UNF	
Permitted oils	Standard mineral and ester oil, without additive	
Permitted refrigerants	HFC,HCFC,CFC	
Mounting position	Horizontal(rotatable by 180°), ±2°	
Weight	Approx. 950g	

Delays

Relay picks up after supply voltage hasbeen connected	3S±1S
Oil level monitoring after supply voltage has been connected	20S±2S
Alarm relay drops out after oil deficiency	135S±5S
Alarm relay drops out after malfunction	5S±2S (blocked)
Alarm relay picks up after oil level correction	5S + remaining waiting time
Alarm relay picks up after malfunction	Network reset > 5S
Switching cycle: Oil injection after oildeficiency	5S/10S/20S/30S
Switching cycle: Wait after oil deficiency	5S/10S/20S/30S
Switching cycle: Oil injection after alarm relay dropped out	30S
Switching cycle: Wait/pause after alarm relay dropped out	30S

LED status display

Level OK	Green is continuously lit
Filling (oil level low)	Green flashes
Alarm (oil level too low)	Red is continuously lit
Internal error or supply voltage low	Red flashes

Scope of supply

- OUT280 Oil Level Regulator
- O-ring for flange
- 7/16"-20 UNF SAE 37° Flared nut for oil connection

Order data

Supply voltage (V)	Order No.
AC 50/60Hz 230V ±10%	15G16 280 01
AC 50/60Hz 115V ±10%	15G16 280 02
AC 50/60Hz 24V ±10%	15G16 280 03