

OUT680R 电子油位平衡器 Oil level Regulators



OUT680R 管理压缩机的曲轴箱润滑油油位，由于从储油式油分离器或储油器采用主动油位调节供油，解决了单台压缩机以及多压缩机并联时的油分配问题。此油位调节器能控制油位在油视镜的 40%~60%之间。

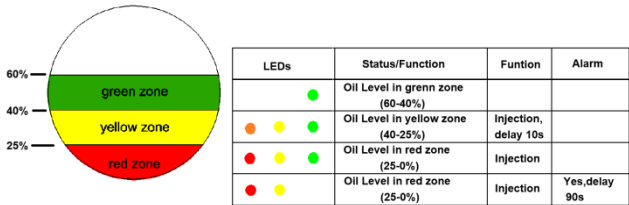
OUT680R monitors and controls the oil level in the refrigerant compressors. Active oil level regulation is used to supply oil from oil storage separators or reservoir, solved the oil distribution problem when a single compressor or multiple compressors are connected in parallel. It keeps the level between 40% to 60% height of the sight glass.

注：不适用于高压腔涡旋与螺杆压缩机，上述压缩机油位管理请选用 OUT580R。
Note: Not suitable for high-pressure chamber scroll compressors and screw compressors. Please use OUT580R for oil level management of the above compressors.

特征 Features

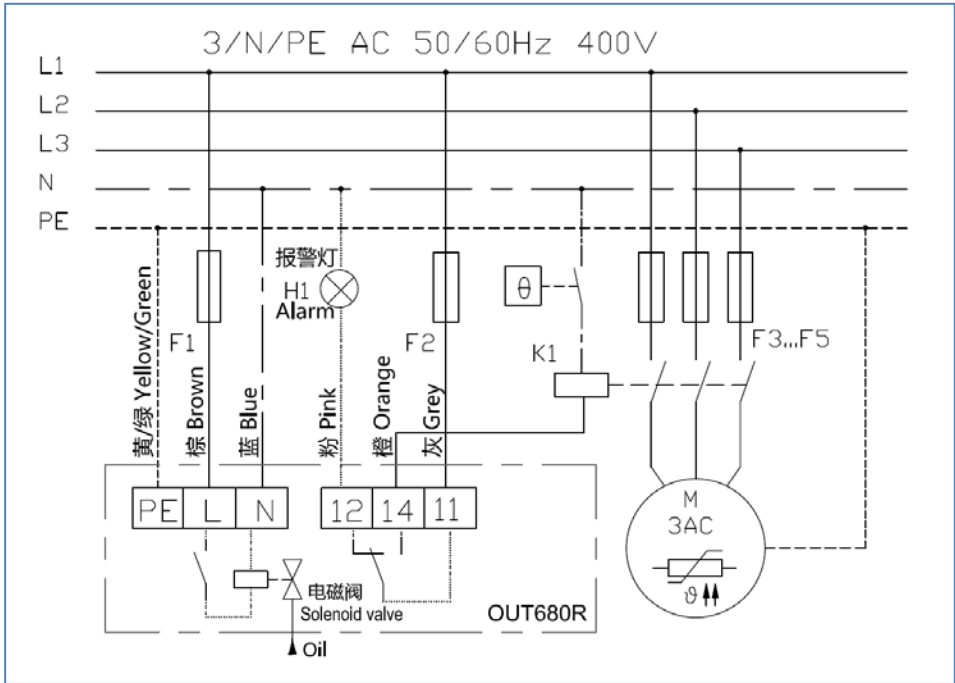
- 用于 R744 (CO2)、R410a 及 HFO、HFC、HCFC、CFC 类制冷剂
Used for R744(CO2), R410a and HFO, HFC, HCFC and CFC refrigerants
- 采用高精度霍尔传感器精确感测油位，实现三区段油位控制
3 Zone Level Control by using precise Hall-Sensor measurement
- 摆臂磁浮子不受泡沫、光线及冷冻油清洁度的影响
Not prone to errors by foaming, light or the oil cleanliness like the swing arm magnetic float
- 状态指示灯实时显示油位、补油和 SPDT 报警输出
SPDT Alarm output, oil replenishment status and level indication by LED's
- 进油嘴内置滤网，可拆卸清洗
An filter installed in the oil inlet , removable cleaning
- 适用于高压供油系统及低压供油系统
Suitable for Hi-pressure return oil systems and Low-pressure return oil systems

视镜油位控制区段 Sight-glass level control zones



左边-油位在 40%-25% 亮橙色，油 位在 25%以下 亮红色
Left—Orange/Red: Low oil level/Oil Level Failure
中间-补油时亮黄色
Mid.—Yellow ON/OFF- Injection ON/OFF
右边-继电器吸合时亮绿色，报警时断开
Right—Green ON/OFF- OUT relay ON/OFF (Alarm)

电气接线原理图 Electrical wiring schematic diagram



订货标记示例(Ordering information)

OUT680R- 1 1 □ / 114 - 36

型号(Basic series designation)

镜片(Sight Glass) * 1 : PN46
2 : PN60

供电电压 (Supply) 1 : 230V AC, 50/60Hz
2 : 24V AC, 50/60Hz

接线长度(Cable length) Blank : 3.0 meter

适配器(Adaptor) 64F: 3-4-6 hole flange
03F: Extended flange
118: 1-1/8"-18UNEF-2A
241: M24x1
114: 1-1/4"-12UNF-2B
134: 1-3/4"-12UNF-2B
34N: 3/4"-14NPTF
331: M33x1

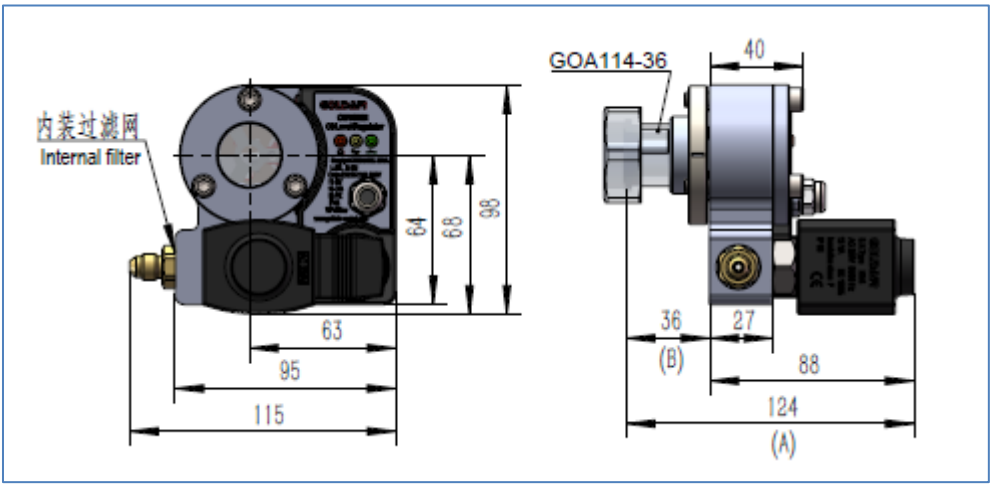
适配器安装长度 (Adapter installation length mm)

* 镜片1 最大工作压力 PS:46bar , 镜片2 最大工作压力 PS:60bar
* Sight Glass 1: Max. operating pressure: PS: 46 bar ;
Sight Glass 2: Max. operating pressure: PS: 60 bar .

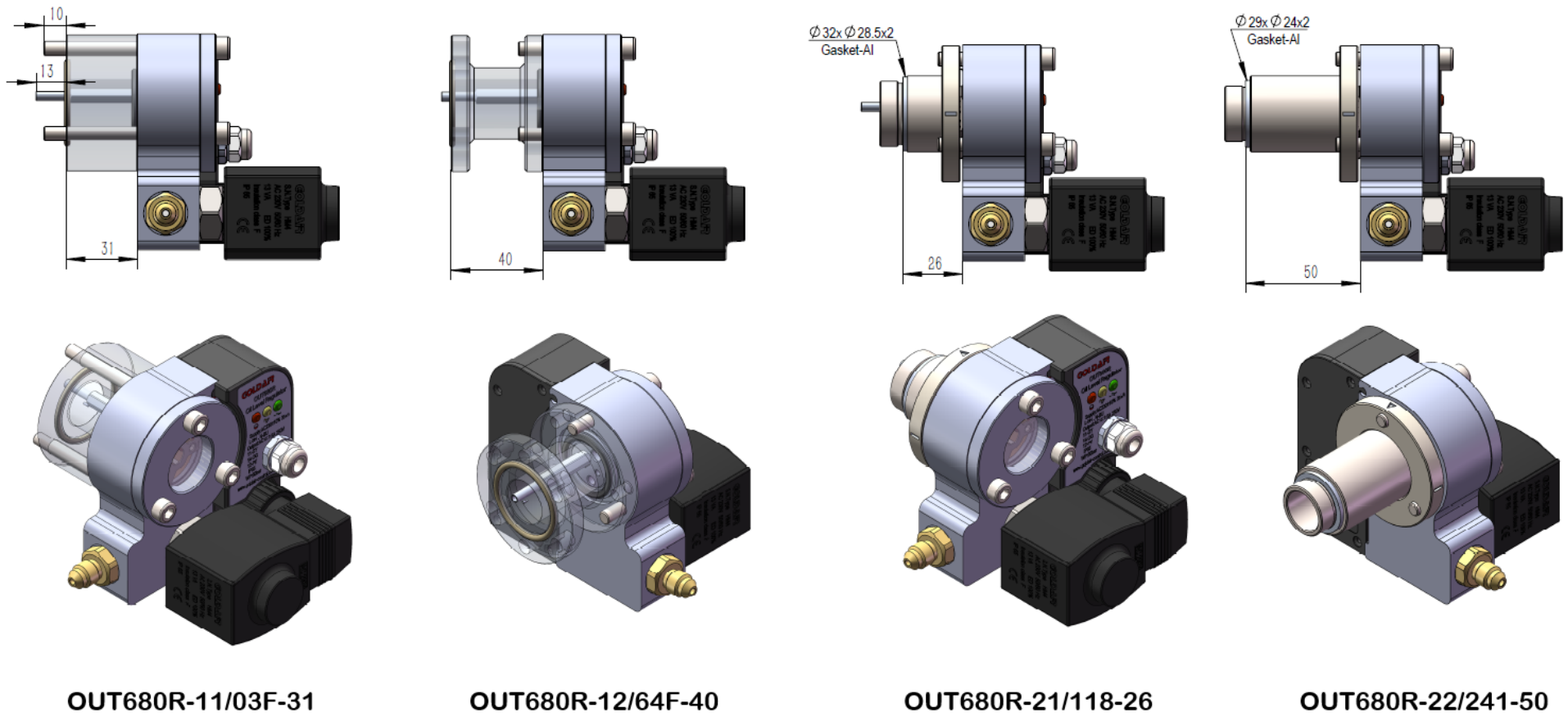
技术规格 Technical specifications

供电电压 Supply	230V AC, +10/-15%, 17 VA, 50/60Hz 24V AC, +10/-15%, 17 VA, 50/60Hz
环境及储存温度 Ambient/Storage Temperature	-40 to +60°C
湿度 Humidity	0 to 95% RH (non-condensing)
介质温度 Media Temperature	-40 to +100°C
工作压力 Max Operating pressure	PS: 60bar
测试压力 Test pressure	66bar
振动 Vibration resistance(EN60068-2-6)	Max. 4g, 10...250Hz
油位控制 Level control	40% to 60% of sight glass height
供油压差 Solenoid valve MOPD	31bar
补油流量 Flow rate at ΔP=3.5bar	1.8 ltr/min, H ₂ O at 20°C
补油延时 Time Delay Filling	5 to 10 sec
报警输出 Alarm contact	SPDT, 5A, 240V AC, C300, dry contact
报警延时 Time Delay Alarm	90 sec
机械寿命 Mechanical life	约 1 百万次 (循环) Approx.1 million switching cycles
连接电缆 Connection cable	6xAWG 20# 颜色编码 Colour coded
防护等级 Protection class acc.to EN 60529	IP67(主体 Base) IP65(电磁阀 Coil)
认证 Markings	CE ,CCC ,EAC
引用标准 Applied Standards	EN12284,EN378,EN61010,EN61000-6-1/-2
材料 Materials	AW6081,6082,SUS304,PA66/PA6+GF
油路连接 Oil connection	7/16"-20 UNF male, with strainer and O-ring
油介质 Permitted oils	矿物油、合成油和酯油，不含添加剂 Standard mineral and ester oil without additves
制冷剂介质 Permitted refrigerants	HFO,HFC,HCFC,CFC,CO ₂
安装位置 Orientation of base unit	水平安装 Horizontal, +/- 1°
重量 Weight	约 1000g (不含适配器) Approx.1000g (No Adapter)

图 1：外形尺寸 Figure 1: Dimensions



典型配置 Typical configuration



正面指示灯与背面附件 LEDs indication, back parts



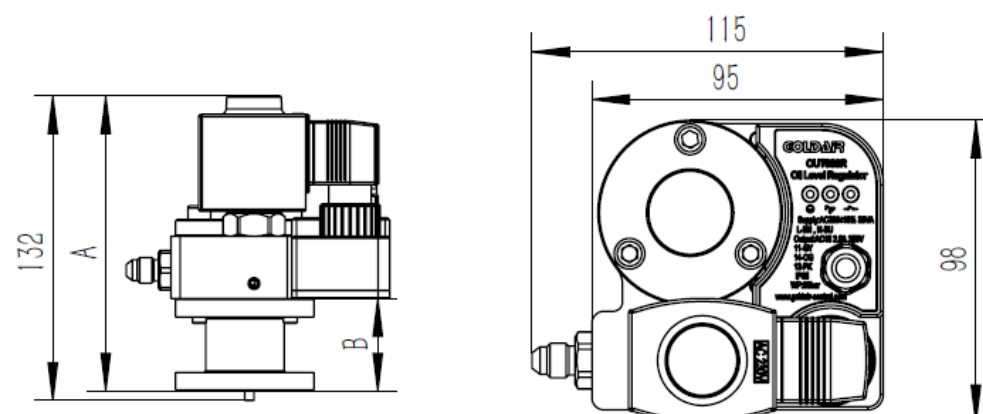
产品选型 Selection of type

选择供电电压 (电磁阀的工作电压与供电电压相同)

Select the supply voltage (the working voltage of the solenoid valve is the same as the supply voltage).

- 1: 230V AC, +10/-15%, 17 VA, 50/60Hz
- 2: 24V AC, +10/-15%, 17 VA, 50/60Hz

适配器及喷油管 Adapter & Oil injection pipe

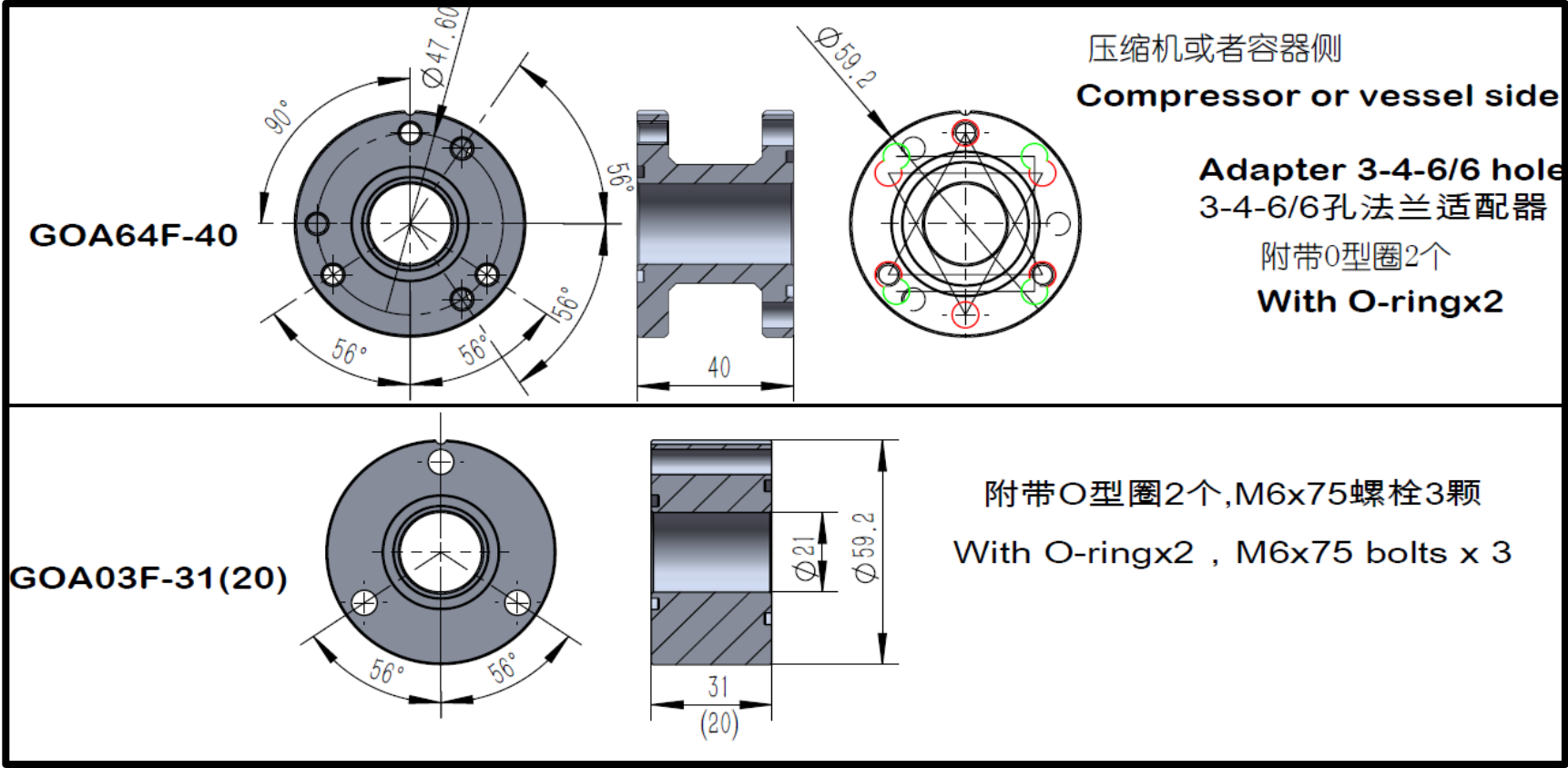


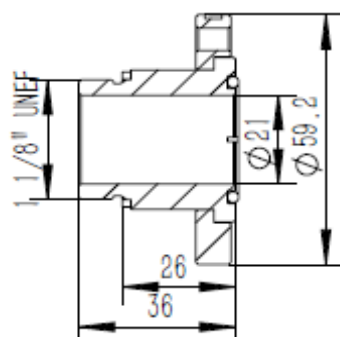
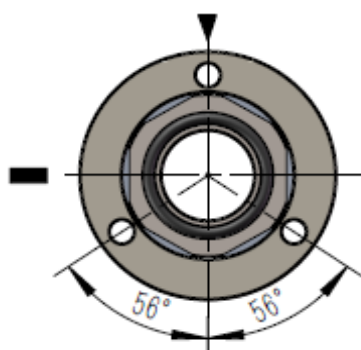
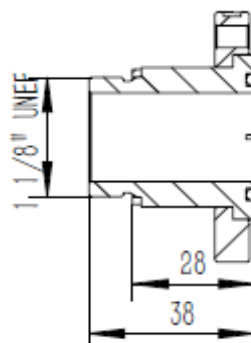
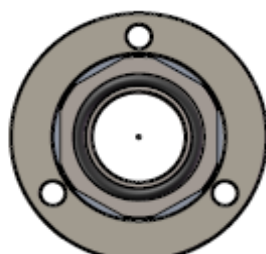
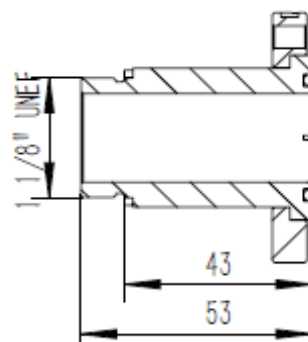
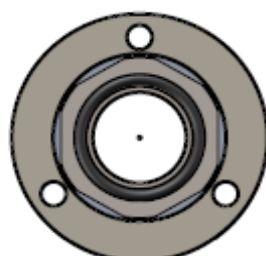
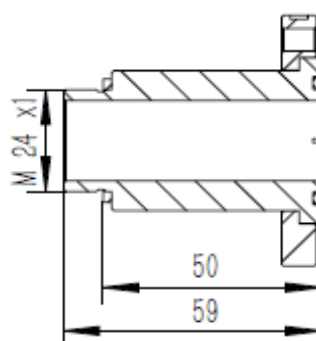
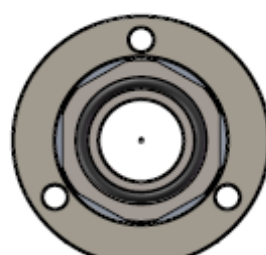
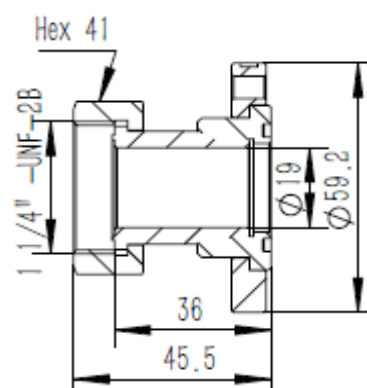
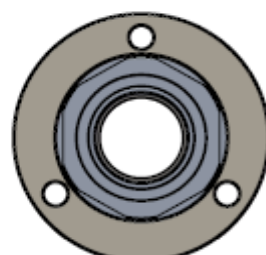
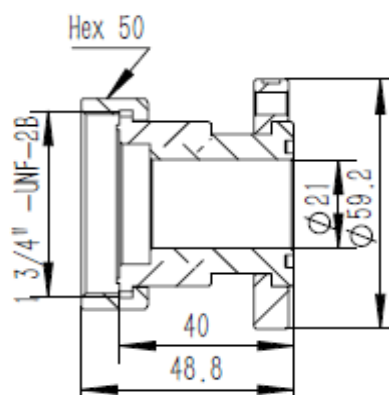
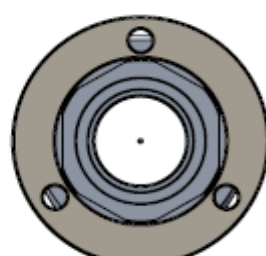
适配器型号/Type	A 安装尺寸/Installed	B 适配器长度/Adaptor depth	描述/Description
GOA64F-40	128	40	3-4-6/6孔法兰适配器 3-4-6/6 hole flange Adapter
GOA03F-31	119	31	3孔法兰适配器 Adapter 3 hole
GOA118-26	114	26	1-1/8"-18UNEF-2A 适配器 Adapter 1 1/8" UNEF
GOA118-28	116	28	1-1/8"-18UNEF-2A 适配器 Adapter 1 1/8" UNEF for Danfoss
GOA118-43	131	43	1-1/8"-18UNEF-2A 适配器 Adapter 1 1/8" UNEF for Dorin
GOA241-50	138	50	M24x1适配器 Adapter M24x1 for Panasonic C-SBN
GOA114-36	124	36	1-1/4"-12UNF-2B旋转锁定适配器 Rotalock Adapter 1-1/4"-12UNF-2B
GOA134-40	128	40	1-3/4"-12UNF-2B旋转锁定适配器 Rotalock Adapter 1-3/4"-12UNF-2B
GOA331-38	126	38	M33x1适配器 Adapter M33x1 for Panasonic 5CF277

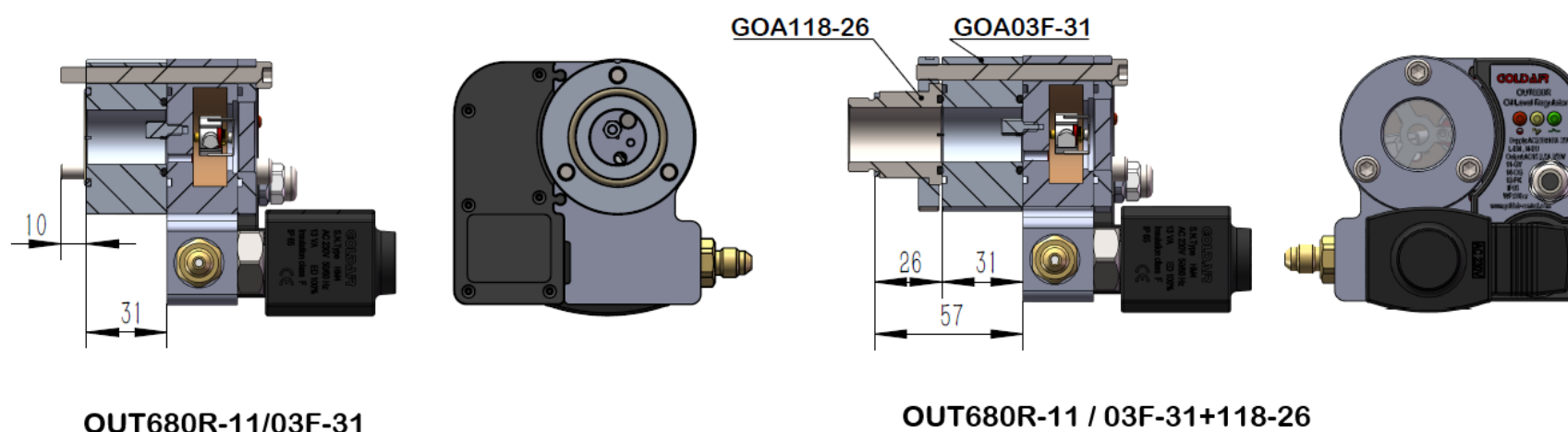
适配器供货选型 Adapter selection guideline

型号Model	名称Description	总高 Lenght (A)	长度 Length (B)	适配压缩机系列Compressor Series
GOA64F-40	3-4 - 6/6 孔法兰适配器 3-4 -6/6 hole Flange Adapter	128	40	Fracold: A, B, D, Q, S, V, W, Z, A-SK, D-SK, F-SK, Q-SK, S-SK Bitzer: 4V, 4T, 4P, 4N, 4-HVC-10K, THC-12K, PHC-15K, NHC-20K, VSL-15K, TSL-20K, PSL-25K, NSL-30K, 4J, 4H, 4G, 6J, 6H, 6G, 6F, 8GC, 8FC Bock: HA, HG, O-Series ; Dorin: all KP, K sizes Copeland: 4M & 6M , D2, D3, D4, D6, D9, 4CC, 6CC, ZBH, D8D, D8S RefComp: SP4, SP6, SP8, SPM INVOTECH: YSM, YSF ; Panasonic: 3CC, 2CC, ACC, C-SC
GOA03F-31	3 孔法兰适配器 (附 3 颗M6x75 螺栓) Adapter 3 hole (3-M6x75 bolts attached)	119	31	Fracold: A, B, D, Q, S, V, W, Z, A-SK, D-SK, F-SK, Q-SK, S-SK Bitzer: 4V, 4T, 4P, 4N, 4-HVC-10K, THC-12K, PHC-15K, NHC-20K, VSL-15K, TSL-20K, PSL-25K, NSL-30K Bock: HA, HG, O-Series ; Dorin: all KP, K sizes Copeland: 4M & 6M , D2, D3, D4, D6, D9, 4CC, 6CC, ZBH, D8D, D8S RefComp: SP4, SP6, SP8, SPM INVOTECH: YSM, YSF ; Panasonic: 3CC, 2CC, ACC, C-SC
GOA118-28	1-1/8"-18UNEF-2A外螺纹 1-1/8" -18 UNEF-2A Thread adapter	116	28	Maneurop: LT, MT, SM, SZ ; L'UniteHerm: TAH, TAG
GOA118-43	1-1/8"-18UNEF-2A外螺纹 1-1/8" -18 UNEF-2A Thread adapter	131	43	Dorin: all H, K100C, K150C, K180C, K200CC, K230CS, K235CC, K240SB, K40CC, K50CS, K75CC/CS
GOA114-36	1-1/4" -12 UNF-2B旋转锁紧适配接头 1-1/4" -12 UNF-2B Rotalock adapter	124	36	Copeland: ZB15 to ZB114, ZF06 to ZF54, ZFI20 to ZFI81 ZBD21 to ZBD45 - after 06/2014, ZS21 to ZS45 - after 06/2014 XECOM: Series X-/ XR, XA- XH, XW -XD INVOTECH: Series YM, YF
GOA134-40	1-3/4" -12 UNF-2B旋转锁紧适配接头 1-3/4" -12 UNF-2B Rotalock adapter	128	40	Copeland: ZB130, ZB150, ZB190, ZB220 ZFI 96, ZFI 122, ZFI 140, ZH, ZR 90, 11, 12, 16, 19 ZR250 to ZR380, ZF24 to ZF48, ZS56 to ZS11
GOA241-50	M24x1 外螺纹适配器 M24x1 Screw adapter	138	50	Panasonic C-SBN453
GOA331-38	M33x1 外螺纹适配器 M33x1 Screw adapter	126	38	Panasonic 5CF277SA12
GOA34N-34	3/4"-14NPTF圆锥外管螺纹 3/4"-14NPTF Thread adapter	122	34	Trank: Series K Bitzer: Series ZL, ZM

适配器图例 Adapter diagram



GOA118-26

1-1/8"-18UNEF 适配器
Adapter 1-1/8"-18UNEF
GOA118-28

1-1/8"-18UNEF Danfoss压缩机适配器
Adapter 1-1/8"-18UNEF for Danfoss
GOA118-43

1-1/8"-18UNEF 适配器
Adapter 1-1/8"-18UNEF
GOA241-50

M24x1 适配器
Adapter M24x1
GOA114-36

1-1/4"-12UNF-2B旋转锁定适配器
Adapter Rotalock 1-1/4"-12UNF-2B
GOA134-40

1-3/4"-12UNF-2B旋转锁定适配器
Adapter Rotalock 1-3/4"-12UNF-2B



OUT680R-11/03F-31

OUT680R-11 / 03F-31+118-26

大部分带有 3 孔法兰油视镜的压缩机只需要用 GOA03F-31 适配器，在正面操作-方便拧紧螺栓。但某些规格的压缩机可能会有干涉，这时可以选配 GOA03F 适配器与任何型号的适配器进行级联加长。

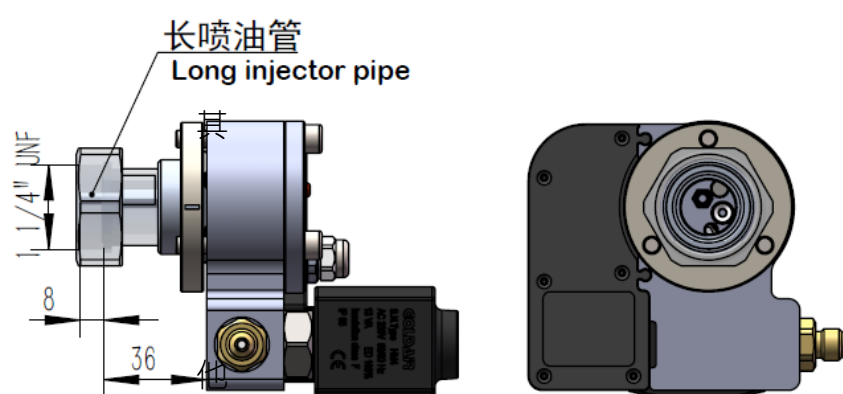
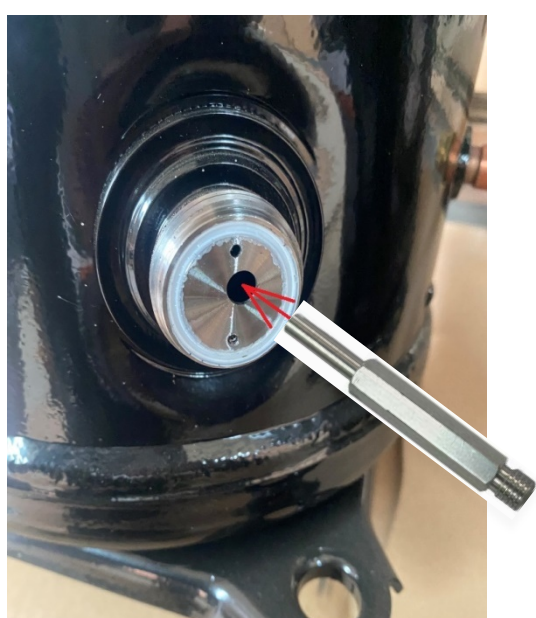
Most compressors with 3-hole flange oil sight glasses only require the use of the GOA03F-31 adapter for front operation - making it convenient to tighten the bolts. However, for some specifications of compressors, there may be interference. In such cases, the GOA03F adapter can be selected and cascaded with any type of adapter for lengthening..

GOA03F-31 适配器附带 3 颗不锈钢内六角螺丝 M6x75、2 个 O 型圈

GOA118-26 适配器附带 1 个 O 型圈、1 个铝合金垫片

The GOA03F-31 adapter comes with 3 stainless steel hexagonal screws M6x75 and 2 O-rings.

The GOA118-26 adapter comes with 1 O-ring and 1 aluminum alloy gasket.



OUT680R-11/114-36 带旋转锁定适配器及长喷油管
OUT680R-11 With GOA114-36 Rotalock Adapter

当压缩机油视镜带有挡油板，请选用长款喷油管（左上图）

右上图的 GOA114-36 旋转锁定适配器配合其长款喷油管可以插入艾默生涡旋压缩机油视镜挡油板的喷油孔。

When the oil sight glass of the compressor has an oil-blocking plate, please choose the long injector pipe (upper left picture).

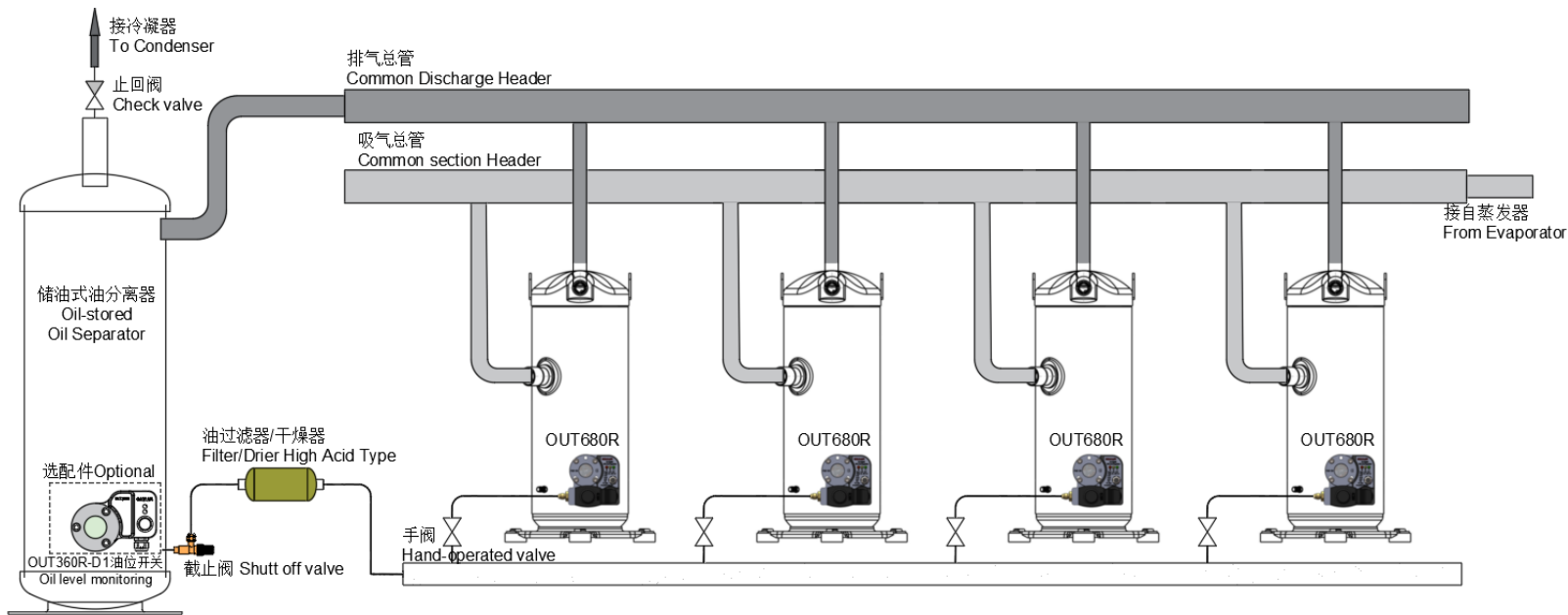
The GOA114-36 Rotalock Adapter in the upper right picture can be used in conjunction with the long injector pipe, and it can be inserted into the injection hole of the oil-blocking plate of the Emerson scroll compressor oil sight glass.

应用说明 Application Considerations

- 请在储油器或储油式油分安装低油位保护开关（参考 OUT360R-D1 摆臂式油位开关），以避免缺油时高压排气旁通短路；
Must use oil with oil storage type or oil storage, and the outlet must not have a float valve; Check the flexibility of the swing arm to follow the oil level regularly. If the magnetic swing arm float is adsorbed by black grease, please clean it in time.
- 进入电子油位控制前的润滑油不高于 100℃，为了能使润滑油得到自然冷却请采用铜管作为供油总管及支管，推荐总管 7/8", 支管 3/8" 变径为 1/4" 再与电子油平衡连接；
The lubricant temp before entering the electronic level control should not be higher than 100℃, in order to make the lubricant get natural cooling, please use copper pipe for the main supply pipe and branch pipe, recommended main tube 7/8", branch 1/4".
- 供油总管上必须装设 300 目 (50um) 精过滤器，以免杂质进入造成电磁阀卡死漏油；
A 300-eye (50um) fine filter must be equipped with the main oil supply pipe, to prevent the solenoid valve seat from getting dirty.
- 油路接口内部带有过滤网，必要时可拆下油路接口，清洗过滤网；
There is a filter inside the oil connection port. If necessary, remove the oil connection port and clean the filter.

5. 定期检查摆臂跟随油位的灵活性，发现带磁性的摆臂被黑色油腻吸附时请及时清理。
Periodically check the flexibility of the magnetic float to follow the oil level, if the magnetic float is adsorbed by black grease, please clean it in time.

推荐高压回油系统原理图 Recommended schematic diagram of the high-pressure return oil system



标识 Identification

产品的标签如下：The below images are examples of labels on the product.
生产批号：2603 代表 26 年第 3 周生产



友情提醒 Caution

在正确安装及使用前提下发现产品质量问题，请寄回 **GOLDAIR** 公司进行保修或者更换，保修的期限按照合同约定，没有约定的为 18 个月。
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