

DKQ/GKQ/SKQ Series Pressure Controller



DKQ/GKQ/SKQ series pressure controllers are typically used in refrigeration and airconditioning systems to protect the systems from extremely low suction pressure or extremely high discharge pressure.

The pressure switches are also used to start or stop the refrigeration compressors and air-cooled condenser fans, to regulate oil differential pressure and other systems which require pressure and differential pressure control.

Features

- Overall features high level of accuracy and stable repeatability
- Long life timewith both excellent electric and mechanical reliability
- SPDT(single-pole double-throw) switch to ensure good contact and disconnect conversion with fast reactions
- Diversification: various pressure ranges are available
- Supply with standard plate for installation
- Bellow elements are made of Tin bronze and pressure connections are made of brass

General Specification

- Applicable for all common HCFC and HFC refrigerants such as: R22, R134a, R404A, R407C, R507 (for R410a applications please contact us)
- Medium temperature TS min./max. -40°C /+120°C
- Ambient temperaturemin./max.-40°C/+65°C
- Relative humidity:0 - 95% RH
- Max. working pressure (PS): HP: 3.5MPa; LP: 1.7MPa
- External leakage rate $\leq 2.83\text{g/a}$

- Contact load

Rated voltage		400V AC1	400V AC3	400V AC15	24VDC
Current	Full load	16A	16A	10A	8A
	Peak load	72A			64A

- Insulation resistance: $\geq 100M\Omega$ (DC500V)
- Electric strength: AC1500V(1min) or AC1800V(1s), Current leakage $\leq 1mA$
- Contact resistance $< 100m\Omega$
- Enclosure: IP40/IP44

Position Number	Model Designation Legend	
1	Product Code	Description
	DKQ	Low pressure controller
	GKQ	High pressure controller
	SKQ	Dual pressure controller
2	Regulating Range	Description
	2 digital numbers	The upper limit of the regulating range in bar. For dual version, it is the summary of high pressure and low pressure
3	Reset	Description
	Z	Auto reset
	S	Manual reset
	G	HP Manual/LP Auto reset
4	Connections Type	Description
	H	Soldering
	M	Capillary
	L	Flare
5	Inch/Metric	Description
	01	inch
	02	metric

Model Designation Example

Position Number

1 2 3 4 5

SKQ 36 Z L 02

→ Dual pressure controller

SKQ 36 Z L 02

→ HP limit is 30 bar and LP limit is 6 bar

SKQ 36 Z L 02

→ HP Auto reset and LP Auto reset

SKQ 36 Z L 02

→ Connection: Flare

SKQ 36 Z L 02

→ Metric connection

Technical Features

Cable connection:

The cable entry can be used for 6-13 mm dia. Cables (from 0.236 inch to 0.512 inch).

Enclosure:

1. Enclosure IP40 is obtained when the units without top cover are mounted on a flat surface or bracket. The bracket must be fixed to the unit so that all unused holes are covered. Models with manual reset have enclosure IP40.
2. Enclosure IP44 is obtained when the Auto reset models with top cover are mounted on a flat surface or bracket. The bracket must be fixed to the unit so that all unused holes are covered. Sanhua pressure controllers with Auto Reset are supplied with top cover.

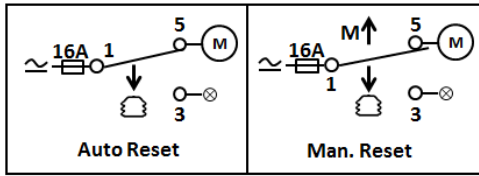
Technical Parameters

Pressure	Regulating Range [bar]	Differential Δp [bar]	Reset	Pre-setting [bar]		Models					
						Flare inch	Flare Metric	Capillary / Nut	ODF inch	ODF Metric	
				CUT OUT	CUT IN	7/16-20UNF	M12×1.25	$\Phi 2.4 \times 1000 + 1/4$ horn	1/4	$\Phi 6$	
Low	-0.5~2	0.2~0.7	Auto	1.0±0.1	0.5±0.2	DKQ02ZL01	DKQ02ZL02	DKQ02ZM01	DKQ02ZH01	DKQ02ZH02	
Low	-0.5~3	0.35~1.5	Auto	2.0±0.1	1.0±0.2	DKQ03ZL01	DKQ03ZL02	DKQ03ZM01	DKQ03ZH01	DKQ03ZH02	
Low	-0.5~6	0.6~4	Auto	3.0±0.1	2.0±0.2	DKQ06ZL01	DKQ06ZL02	DKQ06ZM01	DKQ06ZH01	DKQ06ZH02	
Low	-0.5~6	≤1	Man.	3.0±0.1	Man.	DKQ06SL01	DKQ06SL02	DKQ06SM01	DKQ06SH01	DKQ06SH02	
Low	1~10	1~3	Auto	6.0±0.1	5.0±0.2	DKQ10ZL01	DKQ10ZL02	DKQ10ZM01	DKQ10ZH01	DKQ10ZH02	
High	5~16	2~5	Auto	10±0.2	8±0.5	GKQ16ZL01	GKQ16ZL02	GKQ16ZM01	GKQ16ZH01	GKQ16ZH02	
High	5~20	2~5	Auto	16±0.2	14±0.5	GKQ20ZL01	GKQ20ZL02	GKQ20ZM01	GKQ20ZH01	GKQ20ZH02	
High	8~30	3~5Fix	Auto	20±0.2	15~17	GKQ30ZL01	GKQ30ZL02	GKQ30ZM01	GKQ30ZH01	GKQ30ZH02	
High	8~30	≤5	Man.	20±0.2	Man.	GKQ30SL01	GKQ30SL02	GKQ30SM01	GKQ30SH01	—	
Dual	High	8~30	3~5Fix	Auto	20±0.2	15~17	SKQ36ZL01	SKQ36ZL02	SKQ36ZM01	SKQ36ZH01	SKQ36ZH02
	Low	-0.5~6	0.6~4	Auto	3±0.1	2±0.2					
Dual	High	8~30	≤5	Man.	20±0.2	Man.	SKQ36GL01	SKQ36GL02	SKQ36GM01	SKQ36GH01	SKQ36GH02
	Low	-0.5~6	0.6~4	Auto	3±0.1	2±0.2					
Dual	High	8~30	≤5	Man.	20±0.2	Man.	SKQ36SL01	SKQ36SL02	SKQ36SM01	SKQ36SH01	SKQ36SH02
	Low	-0.5~6	≤1	Man.	3±0.1	Man.					

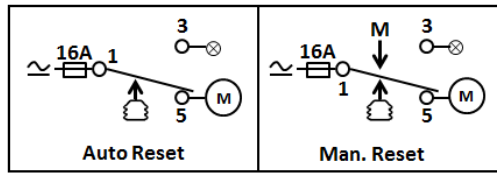
Remark 1: Customized connections are available on request

Contact systems

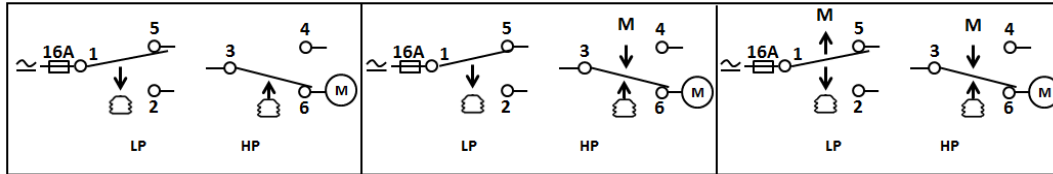
DKQ series SPDT



GKQ series SPDT



SKQ series SPDT+SPDT



Ordering Code

DKQ Low Pressure Controller

Pressure	Connection	Regulating Range [bar]	Differential Δp [bar]	Reset	Models	Part Number Ordering Code
Low	Flare 7/16-20UNF	-0.5~2	0.2~0.7	Auto	DKQ02ZL01	DKQ-68001
Low	Flare 7/16-20UNF	-0.5~3	0.35~1.5	Auto	DKQ03ZL01	DKQ-68002
Low	Flare 7/16-20UNF	-0.5~6	0.6~4	Auto	DKQ06ZL01	DKQ-68003
Low	Flare 7/16-20UNF	-0.5~6	≤ 1	Man.	DKQ06SL01	DKQ-68004
Low	Flare 7/16-20UNF	1~10	1~3	Auto	DKQ10ZL01	DKQ-68005
Low	Flare M12x1.25	-0.5~2	0.2~0.7	Auto	DKQ02ZL02	DKQ-68006
Low	Flare M12x1.25	-0.5~3	0.35~1.5	Auto	DKQ03ZL02	DKQ-68007
Low	Flare M12x1.25	-0.5~6	0.6~4	Auto	DKQ06ZL02	DKQ-68008
Low	Flare M12x1.25	-0.5~6	≤ 1	Man.	DKQ06SL02	DKQ-68009
Low	Flare M12x1.25	1~10	1~3	Auto	DKQ10ZL02	DKQ-68010
Low	Capillary $\Phi 2.4 \times 1000$	-0.5~2	0.2~0.7	Auto	DKQ02ZM01	DKQ-68011
Low	Capillary $\Phi 2.4 \times 1000$	-0.5~3	0.35~1.5	Auto	DKQ03ZM01	DKQ-68012
Low	Capillary $\Phi 2.4 \times 1000$	-0.5~6	0.6~4	Auto	DKQ06ZM01	DKQ-68013
Low	Capillary $\Phi 2.4 \times 1000$	-0.5~6	≤ 1	Man.	DKQ06SM01	DKQ-68014
Low	Capillary $\Phi 2.4 \times 1000$	1~10	1~3	Auto	DKQ10ZM01	DKQ-68015
Low	ODF 1/4'	-0.5~2	0.2~0.7	Auto	DKQ02ZH01	DKQ-68016
Low	ODF 1/4'	-0.5~3	0.35~1.5	Auto	DKQ03ZH01	DKQ-68017
Low	ODF 1/4'	-0.5~6	0.6~4	Auto	DKQ06ZH01	DKQ-68018
Low	ODF 1/4'	-0.5~6	≤ 1	Man.	DKQ06SH01	DKQ-68019
Low	ODF 1/4'	1~10	1~3	Auto	DKQ10ZH01	DKQ-68020
Low	ODF 6mm	-0.5~2	0.2~0.7	Auto	DKQ02ZH02	DKQ-68021
Low	ODF 6mm	-0.5~3	0.35~1.5	Auto	DKQ03ZH02	DKQ-68022
Low	ODF 6mm	-0.5~6	0.6~4	Auto	DKQ06ZH02	DKQ-68023
Low	ODF 6mm	-0.5~6	≤ 1	Man.	DKQ06SH02	DKQ-68024
Low	ODF 6mm	1~10	1~3	Auto	DKQ10ZH02	DKQ-68025

GKQ High Pressure Controller

Pressure	Connection	Regulating Range [bar]	Differential Δp [bar]	Reset	Models	Part Number Ordering Code
High	Flare 7/16-20UNF	5~16	2~5	Auto	GKQ16ZL01	GKQ-68001
High	Flare 7/16-20UNF	5~20	2~5	Auto	GKQ20ZL01	GKQ-68002
High	Flare 7/16-20UNF	8~30	3~5fix	Auto	GKQ30ZL01	GKQ-68003
High	Flare 7/16-20UNF	8~30	≤ 5	Man.	GKQ30SL01	GKQ-68004
High	Flare M12x1.25	5~16	2~5	Auto	GKQ16ZL02	GKQ-68005
High	Flare M12x1.25	5~20	2~5	Auto	GKQ20ZL02	GKQ-68006
High	Flare M12x1.25	8~30	3~5fix	Auto	GKQ30ZL02	GKQ-68007
High	Flare M12x1.25	8~30	≤ 5	Man.	GKQ30SL02	GKQ-68008
High	Capillary $\Phi 2.4 \times 1000$	5~16	2~5	Auto	GKQ16ZM01	GKQ-68009
High	Capillary $\Phi 2.4 \times 1000$	5~20	2~5	Auto	GKQ20ZM01	GKQ-68010
High	Capillary $\Phi 2.4 \times 1000$	8~30	3~5fix	Auto	GKQ30ZM01	GKQ-68011
High	Capillary $\Phi 2.4 \times 1000$	8~30	≤ 5	Man.	GKQ30SM01	GKQ-68012

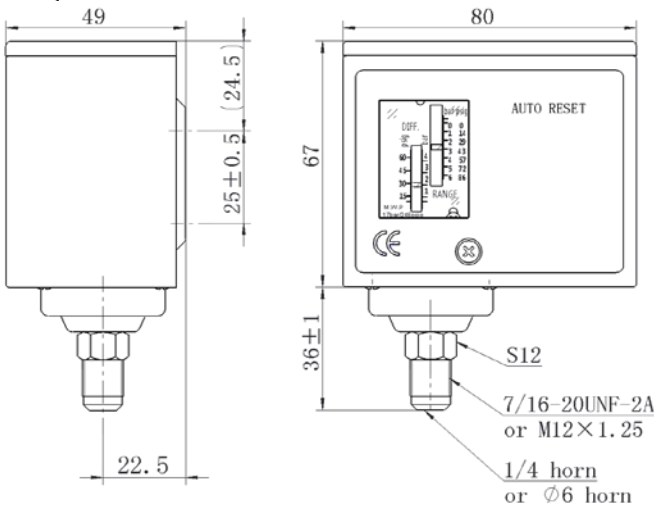
High	ODF 1/4'	5~16	2~5	Auto	GKQ16ZH01	GKQ-68013
High	ODF 1/4'	5~20	2~5	Auto	GKQ20ZH01	GKQ-68014
High	ODF 1/4'	8~30	3~5fix	Auto	GKQ30ZH01	GKQ-68015
High	ODF 1/4'	8~30	≤5	Man.	GKQ30SH01	GKQ-68016
High	ODF 6mm	5~16	2~5	Auto	GKQ16ZH02	GKQ-68017
High	ODF 6mm	5~20	2~5	Auto	GKQ20ZH02	GKQ-68018
High	ODF 6mm	8~30	3~5fix	Auto	GKQ30ZH02	GKQ-68019

SQK Dual Pressure Controller

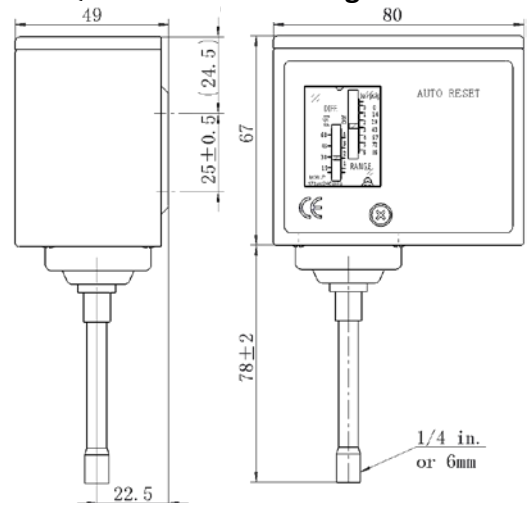
Pressure		Connection	Regulating Range [bar]	Differential Δp [bar]	Reset	Models	Part Number Ordering Code
Dual	High	Flare 7/16-20UNF	8~30	3~5Fix	Auto	SKQ36ZL01	SKQ-68001
	Low		-0.5~6	0.6~4	Auto		
Dual	High	Flare 7/16-20UNF	8~30	≤5	Man.	SKQ36GL01	SKQ-68002
	Low		-0.5~6	0.6~4	Auto		
Dual	High	Flare 7/16-20UNF	8~30	≤5	Man.	SKQ36SL01	SKQ-68003
	Low		-0.5~6	≤1	Man.		
Dual	High	Flare M12×1.25	8~30	3~5Fix	Auto	SKQ36ZL02	SKQ-68004
	Low		-0.5~6	0.6~4	Auto		
Dual	High	Flare M12×1.25	8~30	≤5	Man.	SKQ36GL02	SKQ-68005
	Low		-0.5~6	0.6~4	Auto		
Dual	High	Flare M12×1.25	8~30	≤5	Man.	SKQ36SL02	SKQ-68006
	Low		-0.5~6	≤1	Man.		
Dual	High	Capillary Φ2.4×1000	8~30	3~5Fix	Auto	SKQ36ZM01	SKQ-68007
	Low		-0.5~6	0.6~4	Auto		
Dual	High	Capillary Φ2.4×1000	8~30	≤5	Man.	SKQ36GM01	SKQ-68008
	Low		-0.5~6	0.6~4	Auto		
Dual	High	Capillary Φ2.4×1000	8~30	≤5	Man.	SKQ36SM01	SKQ-68009
	Low		-0.5~6	≤1	Man.		
Dual	High	ODF 1/4'	8~30	3~5Fix	Auto	SKQ36ZH01	SKQ-68010
	Low		-0.5~6	0.6~4	Auto		
Dual	High	ODF 1/4'	8~30	≤5	Man.	SKQ36GH01	SKQ-68011
	Low		-0.5~6	0.6~4	Auto		
Dual	High	ODF 1/4'	8~30	≤5	Man.	SKQ36SH01	SKQ-68012
	Low		-0.5~6	≤1	Man.		
Dual	High	ODF 6mm	8~30	3~5Fix	Auto	SKQ36ZH02	SKQ-68013
	Low		-0.5~6	0.6~4	Auto		
Dual	High	ODF 6mm	8~30	≤5	Man.	SKQ36GH02	SKQ-68014
	Low		-0.5~6	0.6~4	Auto		
Dual	High	ODF 6mm	8~30	≤5	Man.	SKQ36SH02	SKQ-68015
	Low		-0.5~6	≤1	Man.		

Dimensions

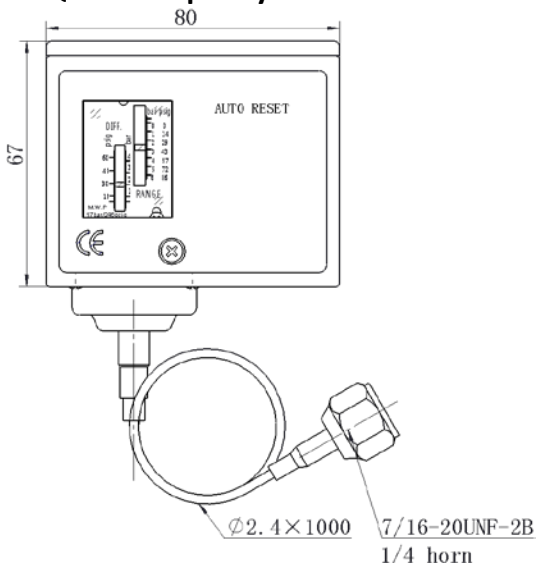
DKQ series flare



DKQ series ODF soldering

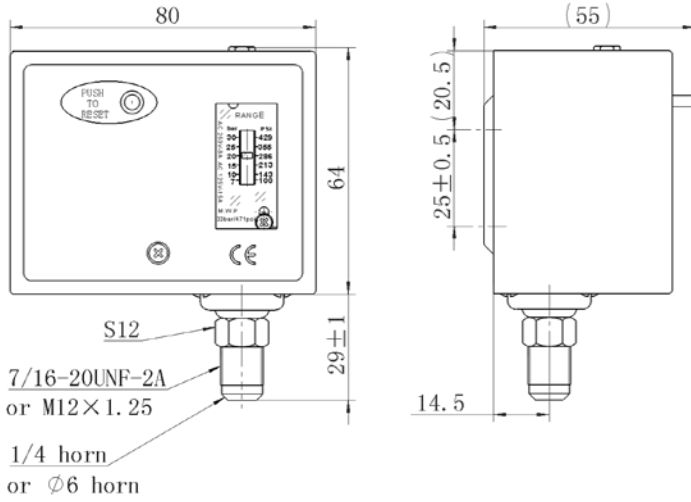


DKQ series capillary

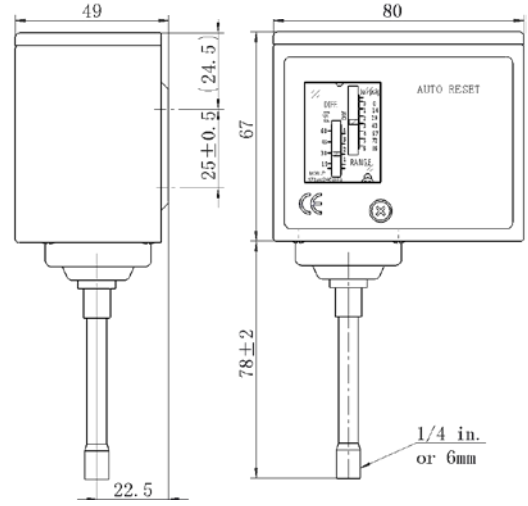


Dimensions

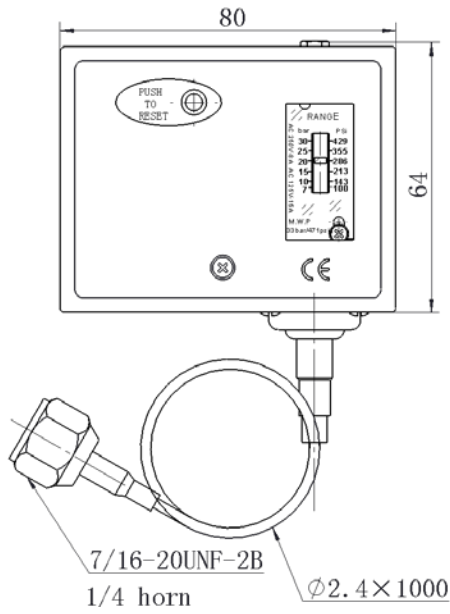
GKQ series flare



GKQ series ODF soldering

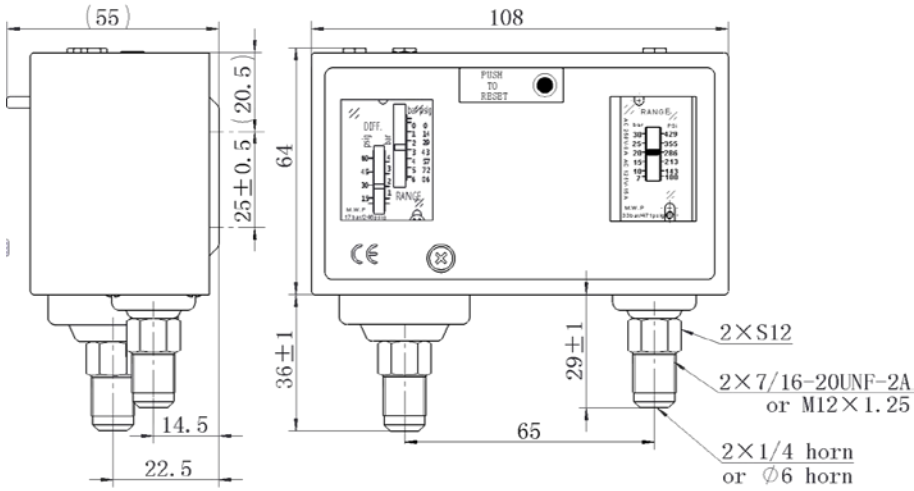


GKQ series capillary

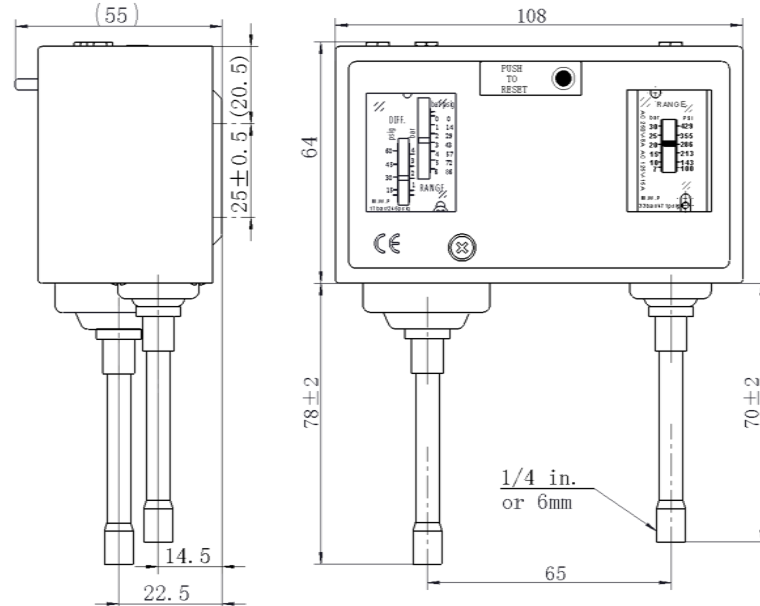


Dimensions

SKQ series flare

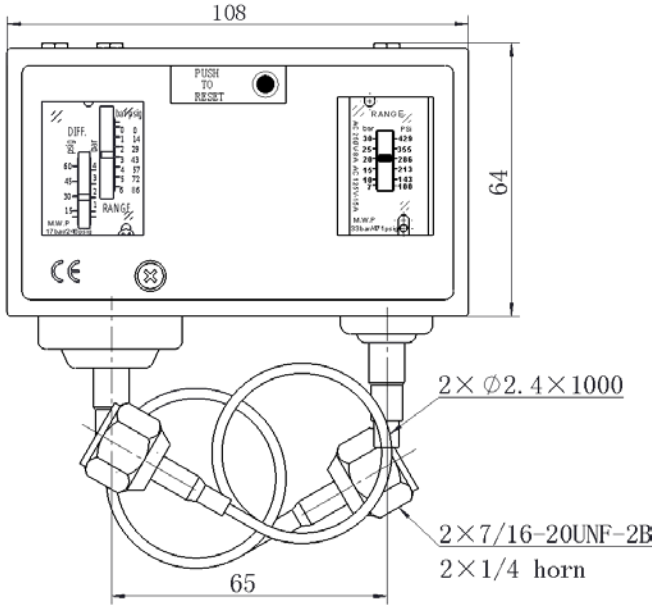


SKQ series ODF soldering



Dimensions

SKQ series capillary



Mounting plate

Use 4 x M4 thread to fix the pressure controller direct to the applications or use Sanhua multi-positions mounting plate.

Multi-positions mounting plate

