


2-way, -Pass Type for 3-way Flow Control

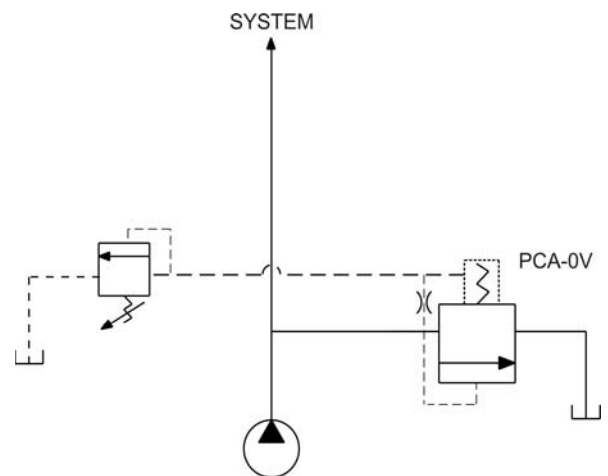
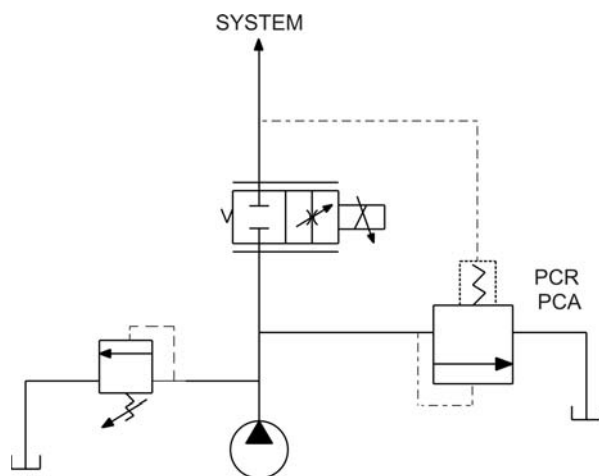
	GPM	PSI	LPM	BAR	MODEL	CAVITY	PAGE
	10	3500	38	245	DF-PCR	7/8" – 14 UNF	70
	40	3500	151	245	TR-PCA	1 1/16" – 12 UNF	72
	40	3500	151	245	SL-PCA	1 5/16" – 12 UNF	74
	31	3500	120	245	QC-CP3	Special	76

Typical Schematic

Typical application for the PCR, PCA and CP3 is in a proportional circuit to achieve pressure compensated flow control or as main stage of a ventable relief valve.

The pressure compensator is -pass located and is spring biased to a closed position.

The PCA-0V version is commonly used as main stage of a ventable relief valve.



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DF-PCR Pressure Compensating Valve, -Pass Type for 3-way Flow Control

DESCRIPTION

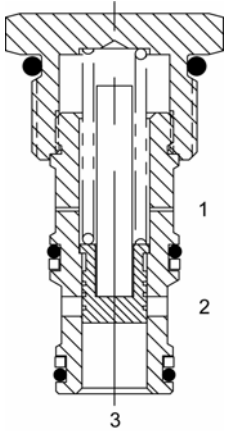
10 size, 7/8-14 thread, "Delta" series, pressure compensating regulator valve.

OPERATION

The DF-PCR-0P with an orifice between ports (3) and (1) maintains a constant flow rate from (3) regardless of load pressure changes in the system upstream of (3), or in the pass leg at (2) as long as pressure at (2) is less than (1).

The valve's spool maintains a constant differential pressure across an external orifice, there regulating the hydraulic flow rate from (3) to (2). (see options table for pressure ranges)

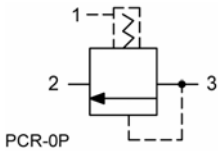
When used with an orifice as described above, as a priority type regulator, delivering pump flow first to (3), then passing excess to (2). All ports may be fully pressurized.



FEATURES

- Hardened parts for long life.
- Industry common cavity.
- Spring range from 2,8 to 14 bar

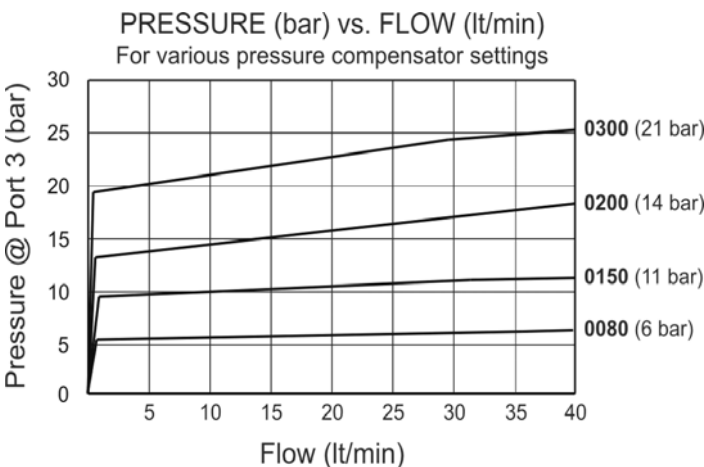
HYDRAULIC SYMBOL



Pressure compensator for 3-way flow control, typically used with an external orifice between ports (3) and (1). Port (1) should sense upstream pressure of orifice. Can be used as a logic element.

PERFORMANCE

Actual Test Data (Cartridge Only)

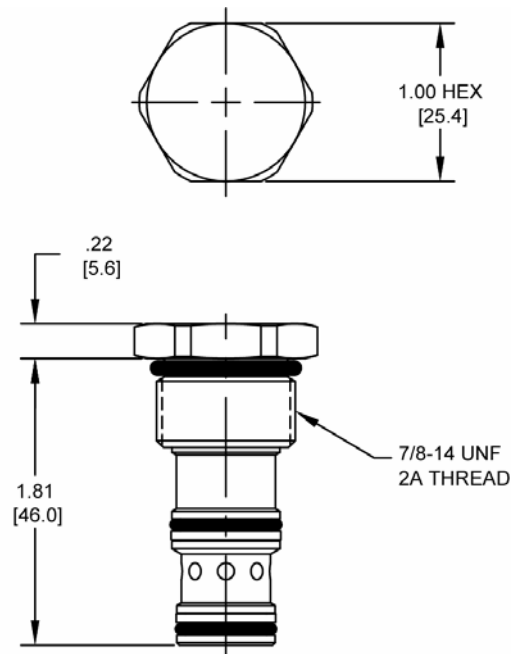


VALVE SPECIFICATIONS

Nominal Flow	10 GPM (38 LPM)
Rated Operating Pressure	3500 PSI (241 bar)
Typical Internal Leakage (150 SSU)	35 ml/min @ 250 bar
Seat Ratio	Area of Pilot is equal to the area at Port (3)
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.19 lbs. (.08 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	30 ft-lbs (40.6 Nm)
Cavity	DELTA 3W
Cavity Tools kit (form tool, reamer, tap)	40500001
Seal Kit	21191206

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DIMENSIONS



(for bodies style and sizes see section "Accessories")

ORDERING INFORMATION

DF-PCR		-	-	-	-
OPTIONS					BODIES
Buna Standard	OP			Blank	Without Body
Viton Standard	VP			N	3/8" BSP Ports
				S	#6 SAE Ports
					PRESSURE SETTING
			0040	40 PSI (3 bar)	
			0080	80 PSI (6 bar)	
			0150	150 PSI (11 bar)	
			0200	200 PSI (14 bar)	
			0300	300 PSI (21 bar)	

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TR-PCA Pressure Compensating Valve, -Pass type for 3-way Flow Control

DESCRIPTION

12 size, 1 1/16-12 thread, "Tecnorm" series, pressure compensating regulator valve.

OPERATION

The TR-PCA-0P with an orifice between ports (3) and (1) maintains a constant flow rate from (3) regardless of load pressure changes in the system upstream of (3), or in the pass leg at (2) as long as pressure at (2) is less than (1).

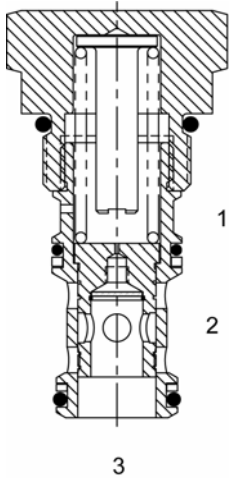
The valve's spool maintains a constant differential pressure across an external orifice, there regulating the hydraulic flow rate across this external orifice. (see options table for pressure ranges)

When used with an orifice as described above, it functions as a priority type regulator, delivering pump flow first to the external orifice, then passing excess to (2). All ports may be fully pressurized.

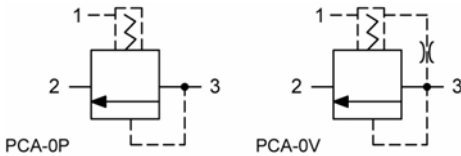
The TR-PCA-0V with a dump valve and a pilot relief valve at (1) acts as main stage of a ventable relief valve.

FEATURES

- Hardened parts for long life.
- Industry common cavity.
- Spring range from 20 to 230 PSI



HYDRAULIC SYMBOL



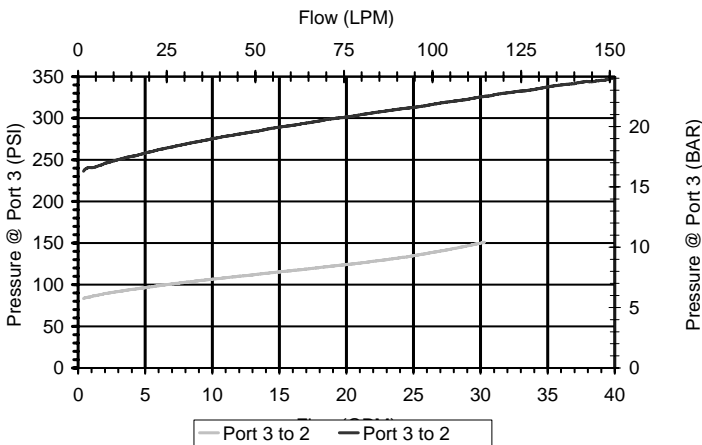
Can be used as a logic element.

TR-PCA-0P is commonly used as a pass flow regulator (90 and 150 PSI recommended).

TR-PCA-0V is commonly used as the main stage of a vent-able relief valve (50 and 90 PSI recommended).

PERFORMANCE

Actual Test Data (Cartridge Only)

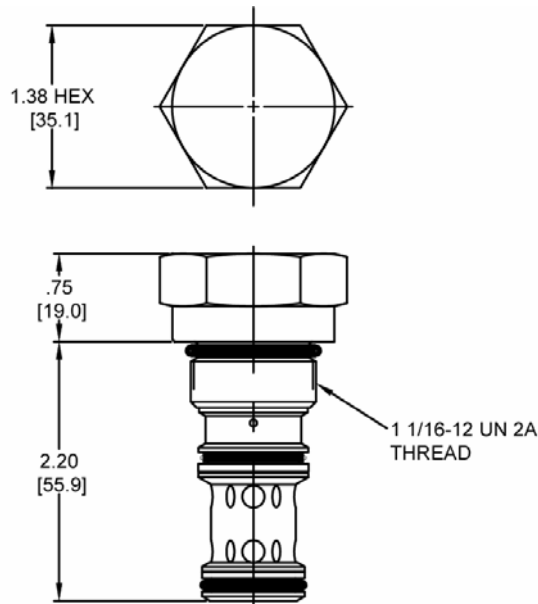


VALVE SPECIFICATIONS

Nominal Flow	40 GPM (151 LPM)
Rated Operating Pressure	3500 PSI (241 bar)
Seat Ratio	Area of Pilot is equal to the area at Port (3)
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.54 lbs. (.24 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	70 ft-lbs (95 Nm)
Cavity	TECNORD 3W
Cavity Tools kit (form tool, reamer, tap)	40500034
Seal Kit	21191306

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DIMENSIONS



(for bodies style and sizes see section "Accessories")

ORDERING INFORMATION

TR-PCA -		-	-	-
OPTIONS				BODIES
Buna, Pilot to Close	OP		Blank	Without Body
Buna, Vent to Open	OV		N	3/4" BSP Ports
Viton, Pilot to Close	VP		S	#12 SAE Ports
Viton, Vent to Open	VV			
				Δ P SETTING
				@ 1 GPM with Pilot Vented
			0020	20 PSI (1,4 bar)
			0050	50 PSI (3,5 bar)
			0090	90 PSI (6,3 bar)
			0150	150 PSI (10,5 bar)
			0230	230 PSI (16,1 bar)
				+/- 10%

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SL-PCA Pressure Compensating Valve, -Pass type for 3-way Flow Control

DESCRIPTION

12 size, 1 5/16-12 thread, "Super" series, pressure compensating regulator valve.

OPERATION

The SL-PCA-0P with an external orifice between ports (3) and (1) maintains a constant flow rate across the external orifice, regardless of load pressure changes in the system upstream of (3), or in the pass leg at (2) as long as pressure at (2) is less than (1).

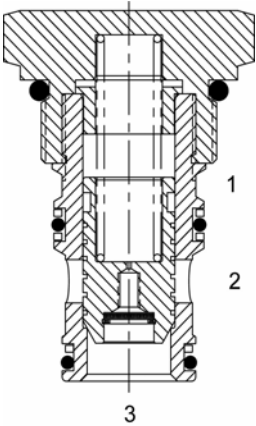
The valve's spool maintains a constant differential pressure across the external orifice, there regulating the hydraulic flow rate across the external orifice. (see options table for pressure ranges)

When used with an orifice as described above, it functions as a priority type regulator, delivering pump flow first to the external orifice, then passing excess to (2). All ports may be fully pressurized.

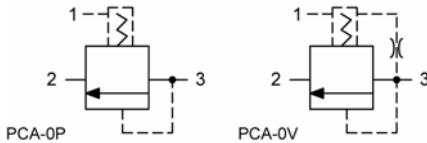
The SL-PCA-0V with a dump valve and a pilot relief valve at (1) acts as main stage of a ventable relief valve.

FEATURES

- Hardened parts for long life.
- Industry common cavity.



HYDRAULIC SYMBOL



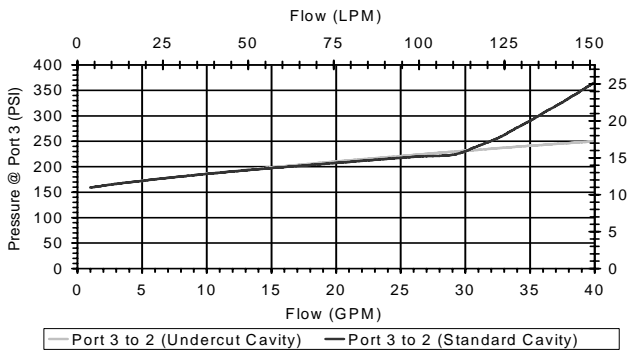
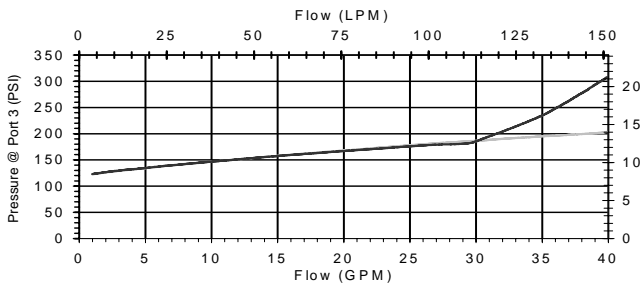
Can be used as a logic element.

SL-PCA-0P is commonly used as a pass flow regulator (100 PSI recommended).

SL-PCA-0V is commonly used as the main stage of a vent able relief valve (50 and 100 PSI recommended).

PERFORMANCE

Actual Test Data (Cartridge Only)

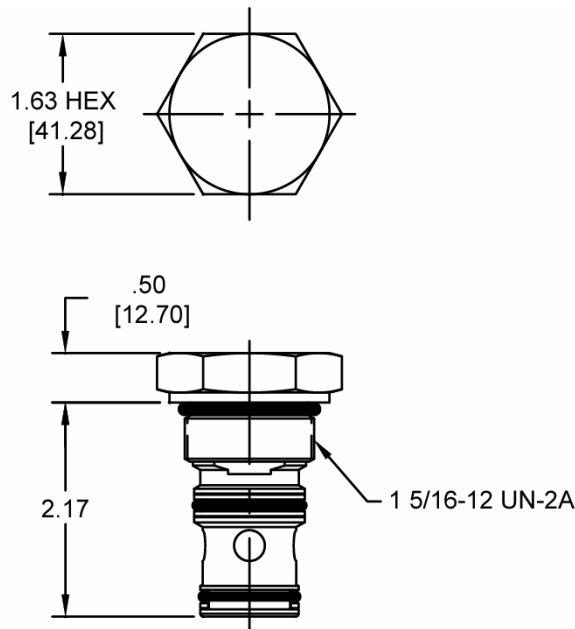


VALVE SPECIFICATIONS

Nominal Flow	40 GPM (151 LPM)
Rated Operating Pressure	3500 PSI (241 bar)
Seat Ratio	Initially area of Pilot is 1.2 times the area at Port (3), then 1:1
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.70 lbs. (.32 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	90 ft-lbs (122 Nm)
Cavity	SUPER 3W SHORT
Cavity Tools kit (form tool, reamer, tap)	40500021
Seal Kit	21191406

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DIMENSIONS



(for bodies style and sizes see section "Accessories")

ORDERING INFORMATION

SL-PCA		-	-	-	-
OPTIONS					BODIES
Buna, Pilot to Close	OP				Blank Without Body
Buna, Vent to Open	OV				N 3/4" BSP Ports
Viton, Pilot to Close	VP				S #12 SAE Ports
Viton, Vent to Open	VV				
Buna, Pilot to Close	OB				
Buna, Vent to Open	OC				
Viton, Pilot to Close	VB				
Viton, Vent to Open	VC				
			0020		Δ P SETTING
			0050		@ 1 GPM with Pilot Vented
			0100		20 PSI (1,4 bar)
			0150		50 PSI (3,5 bar)
					100 PSI (7 bar)
					150 PSI (10,5 bar)
					+/- 20%

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QC-CP3 Pressure Compensating Valve, -Pass type for 3-way Flow control

DESCRIPTION

Special cavity, pressure compensating valve, -pass type, for 3-way flow control, normally closed.

OPERATION

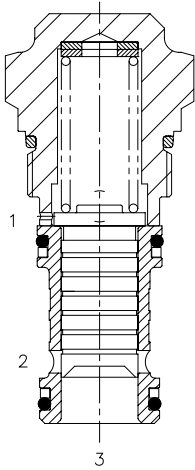
The QC-CP3 with an orifice between ports (3) and (1) maintains a constant flow rate from (3) regardless of load pressure changes in the system upstream of (3), or in the pass leg at (2) as long as pressure at (2) is less than (1).

The valve's spool maintains a constant differential pressure across an external orifice, there regulating the hydraulic flow rate from (3) to (2). (see options table for pressure ranges)

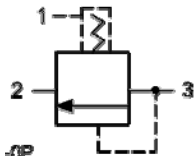
When used with an orifice as described above, as a priority type regulator, delivering pump flow first to (3), then passing excess to (2). All ports may be fully pressurized.

FEATURES

- Hardened parts for long life.
- Spring range from 8 to 24 bar



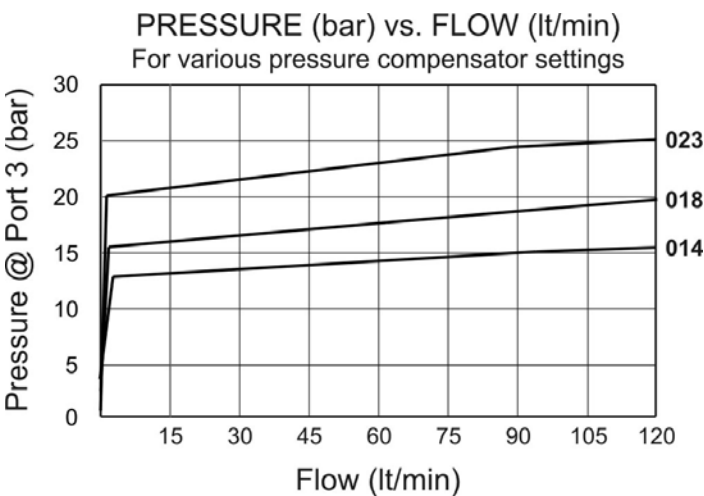
HYDRAULIC SYMBOL



Pressure compensator for 3 way flow control, typically used with an external orifice between ports (3) and (1) . Port (1) should sense upstream pressure of orifice.

PERFORMANCE

Actual Test Data (Cartridge Only)

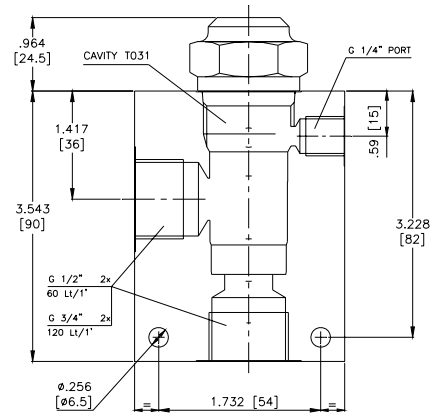
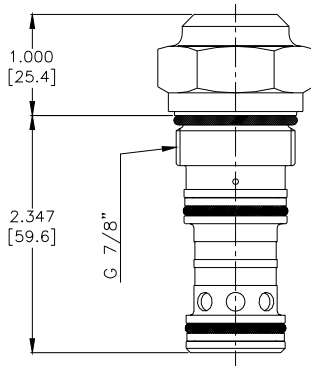
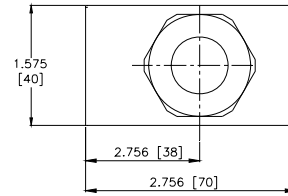
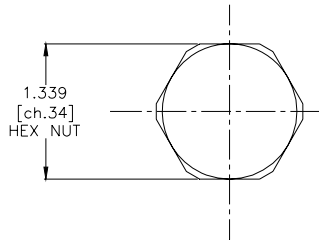


VALVE SPECIFICATIONS

Nominal Flow	33 GPM (120 LPM)
Rated Operating Pressure	3500 PSI (241 bar)
Typical Internal Leakage (150 SSU)	35 ml/min @ 250 bar
Viscosity Range	36 to 3000 SSU (3 to 647 cSt)
Filtration	ISO 18/16/13
Media Operating Temperature Range	-40° to 250° F (-40° to 120° C)
Weight	.35 lbs. (.16 kg)
Operating Fluid Media	General Purpose Hydraulic Fluid
Cartridge Torque Requirements	33 ft-lbs (45 Nm)
Cavity	T031
Cavity Tools kit (form tool, reamer, tap)	K-T031
Seal Kit	21.0902.321

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DIMENSIONS



ORDERING INFORMATION

QC - CP3

OPTIONS
 Buna Standard
 Viton Standard

00
V0

Blank
N
S

BODIES
 Without Body
 1/2" BSP Ports
 # SAE 8

014
018
023

PRESSURE SETTING
 14 bar (200 psi) @ 60 l/min
 18 bar (260 psi) @ 60 l/min
 23 bar (330 psi) @ 60 l/min

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