product card

NEW RELEASE

HYDRAULIC REMOTE CONTROLS

PATENT PENDING

E0.09.0302.02.00

salami™

SHRC

HYDRAULIC REMOTE CONTROLS

APPLICATIONS:

The SHRC serie has been designed to control the servopilot hydraulic circuit of directional control valves, hydrostatic power transmissions, linear & rotative hydraulic motors.The SHRC serie structural arrangement & working features answer to the highest needs of the market.

OPERATING PRINCIPLE:

The hydraulic remote controls SHRC serie convert constant supply pressure "Pu" in proportional pilot pressure "Pp" depending on the lever angle."Pp" from A&B ports, in case of single axis, or P1,P2,P3,P4 ports, in case of dual axis, is modulated by the lever angle starting from 0 to a maximum value of 10 - 15 bar (from 145 to 217 psi) lower than the supply pressure "Pu".
The 2/4 proportional pressure reducing valves, normally open, work as variable orifices.In other words, according the instantaneous flow, they create a Δp proportional to the piston pivot axial shift correlated to the lever angle.

CONSTRUCTIVE FEATURES:

The remote control arrangement is mainly done by the following:
- Body
- Pressure reducing valve & cartridge pressure control device(two for each controlled axis)
- Independent drive mechanism
- Handle & pre-arrangement for auxiliary electric and hydraulic controls

The body is manufactured with alluminum special alloy protected by anodisation.
The pressure reducing valve is manufactured with spheroidal cast iron and the cartridge pressure control device with high strength steel.Progressive control of reduced pressure and very low hysteresis are the main caractheristics of the devices built in the body.
The drive mechanism is manufactured with ligth alloy.Its cam profile actuates the pressure cartridge valves.High sensitivity control curves are obtained by the accurate and unique cam profile design.

WARNING:

Hydraulic remote controls SHRC serie are only control devices and they must not be used as safety.In case they are used as controls person safety depends on, the safety function must be carried out by specific suitable equipment not included in SHRC serie.

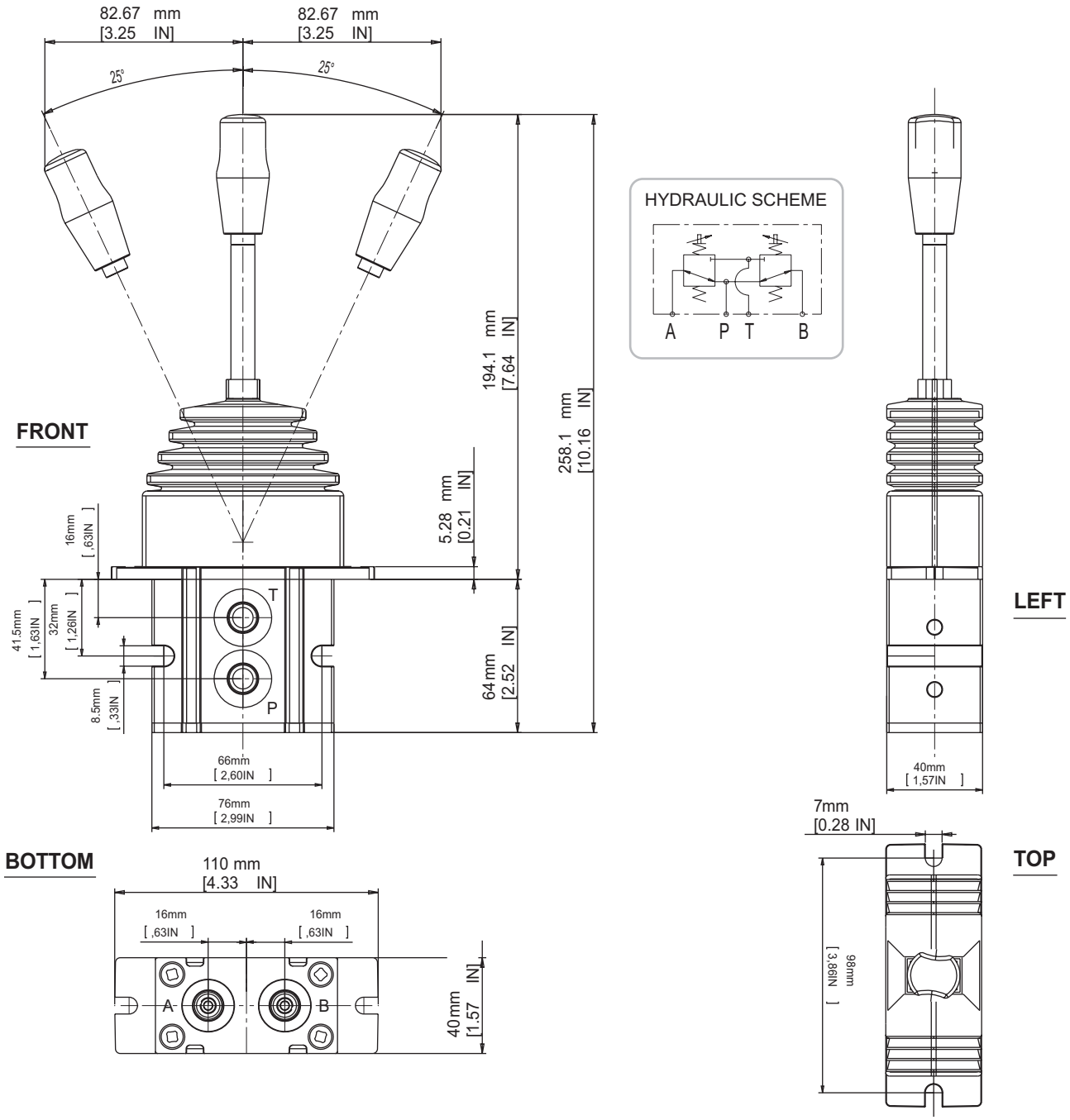
SAFETY RECOMMENDATIONS ⚠

- Don't use the hydraulic control as safety device
- Verifie correct assembly and fluid filtration: fluid's impurity can sticks valves in open position and prevent the hydraulic control return to neutral
- Before using the hydraulic control be sure to be trained the person to the right usage
- Hydraulic control tampering or improper usage cause warranty invalidation

INSTALLATION AND STARTING:

Hydraulic controls SHRC serie filtration sistem should be provided by the user.This can be usually achieved by a filter with a rating of 10 micron absolute, adeguately sized wich conforms to CLASS CONTAMINATION 16/13 according to ISO 4406.
- Install the remote control in maximum ceaning conditions and remove the protections only for the final assembling on the machine
- Hydraulic links should be carried out according to indications marked on the control body:
  P = inlet fluid pressure
  T = fluid drain to tank
  A&B or P1 - P2 - P3 - P4 = fluid pilot pressure ports

SHRC - 1 MODEL



As supplied, ports fitted with transport plugs."P" and "T" ports:
- recessed on one side only to Φ 12.42 (0.489 dia) x 1.78 (0.070) deep for O-rings to 2-014 dimensions, to be supplied by user.
- threaded M10x1 steel plugged

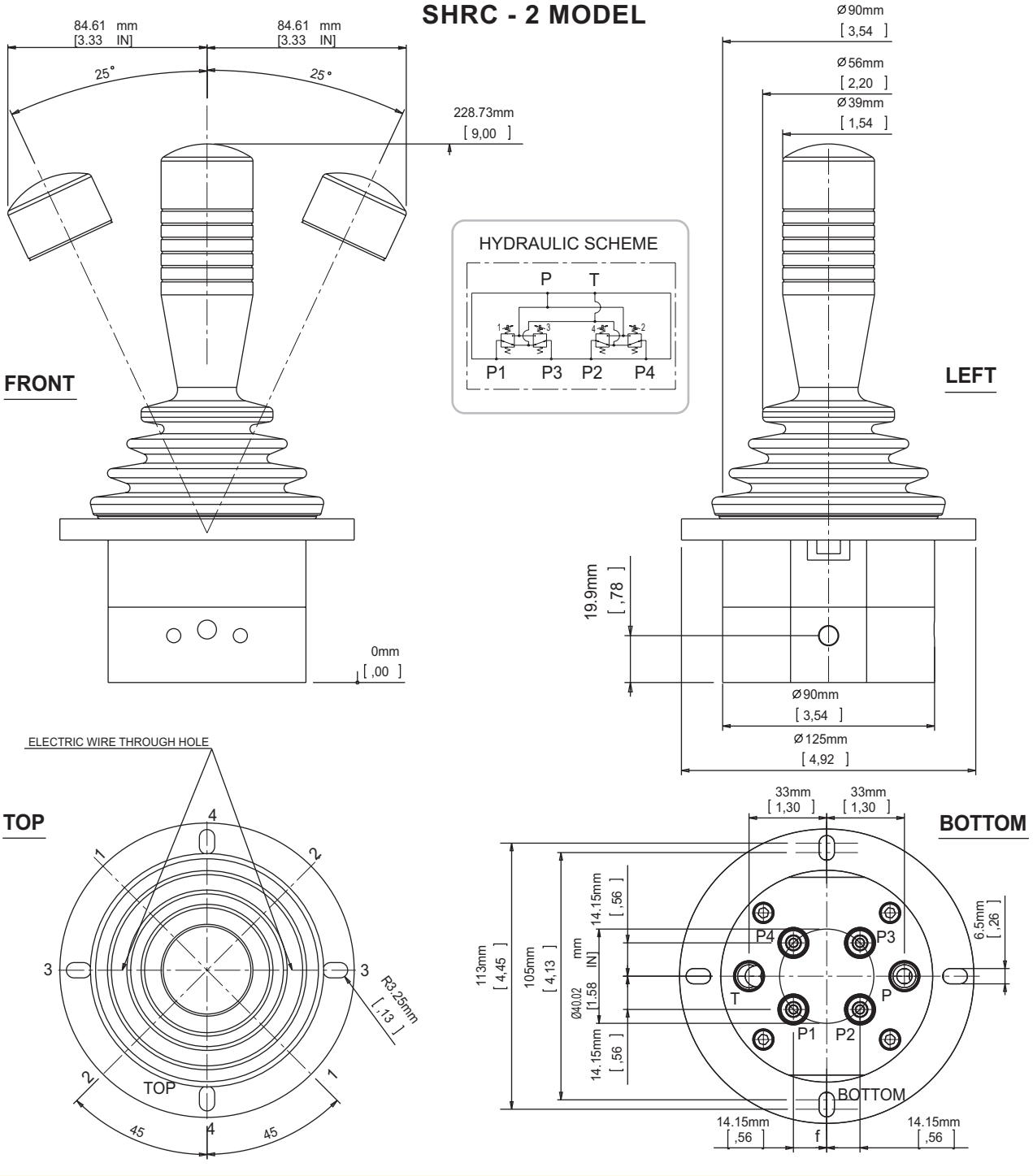
PORT SIZES	BSP ISO 228	SAE ISO 176	METRIC ISO 6149
P - A - B - T	G 1/4	SAE#6 9/16-18 UNF	M14x1.5

INDEX:
P = side inlet port
T = side outlet port
A/B = controlled pilot pressure ports

SHRC

HYDRAULIC REMOTE CONTROLS

SHRC - 2 MODEL

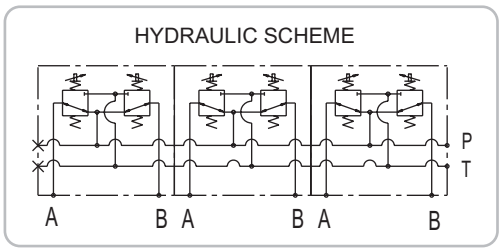


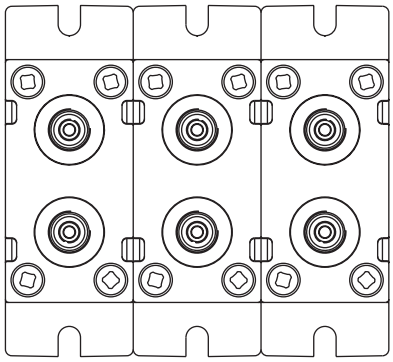
PORT SIZES	BSP ISO 228	SAE ISO 176	METRIC ISO 6149
P1 - P2 - P3 - P4 - T	G 1/4	SAE#6 9/16-18 UNF	M14x1.5

INDEX:

P = side inlet port
T = side outlet port
P1 - P2 = controlled pilot pressure ports N/S direction
P3 - P4 = controlled pilot pressure ports E/W direction

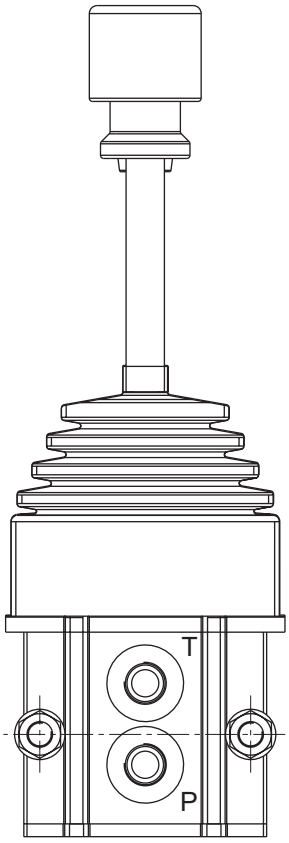
SHRC - 1 / n MODEL



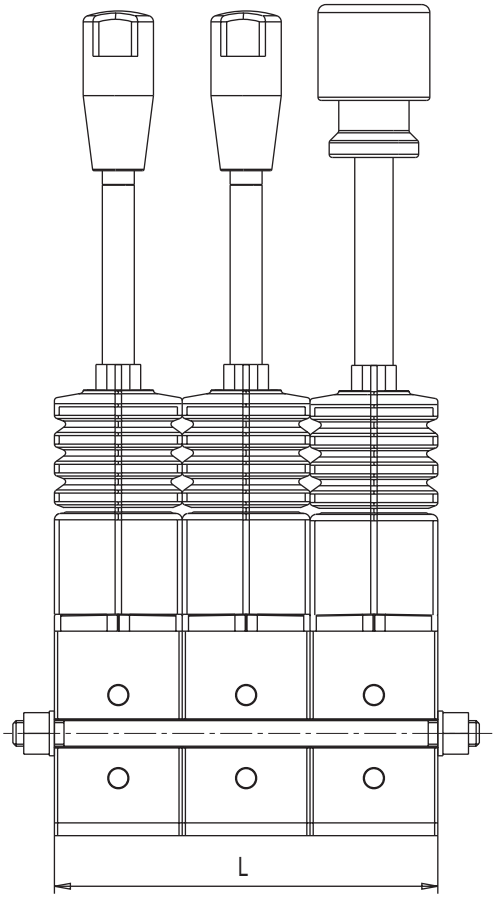


BOTTOM

FRONT



LEFT



Modules		2	3	4	5	6
L	mm	80	120	160	200	240
	in	3.15	4.72	6.29	7.87	9.45

Tie rods assembling tightening torque 30 Nm

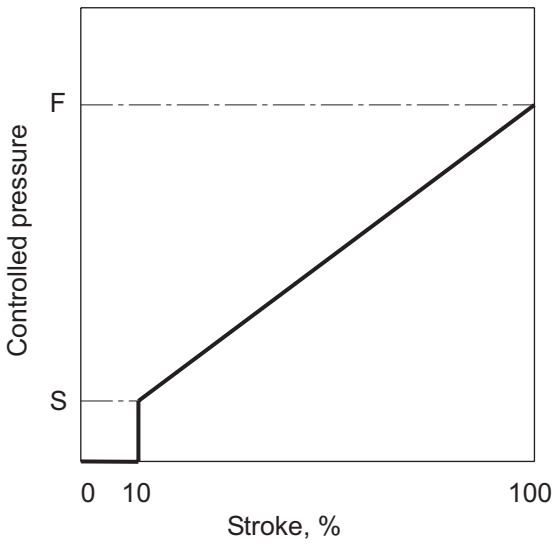
PORT SIZES	BSP ISO 228	SAE ISO 176	METRIC ISO 6149
P - A - B - T	G 1/4	SAE#6 9/16-18 UNF	M14x1.5

INDEX:
P = side inlet port
T = side outlet port
A/B = controlled pilot pressure ports

Pressure curve options

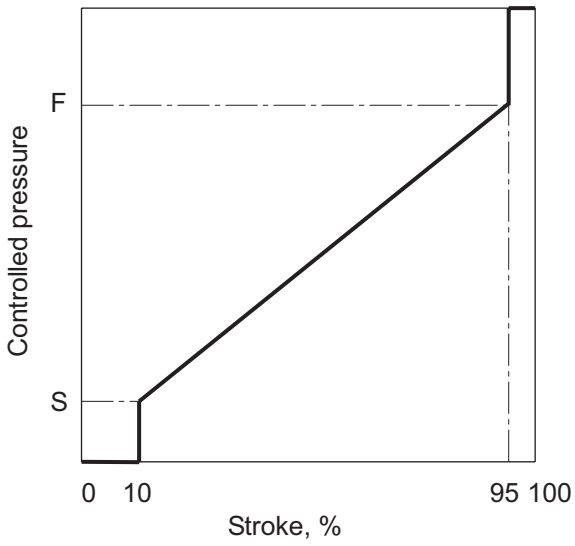
Typical curves shown below but others can be made available

Proportional curves without forced terminal rise (without final step)



Code	Pressure range S bar (psi)	F bar (psi)
1	2 (29)	14 (203)
3	2.5 (36)	18 (261)
5	3 (43)	20 (290)
7	4 (58)	35 (507)
9	5 (72)	45 (652)

Proportional curves with forced terminal rise (with final step)



Code	Pressure range S bar (psi)	F bar (psi)
2	2 (29)	13.4 (194)
4	2.5 (36)	17.1 (248)
6	3 (43)	19 (275)
8	4 (58)	33.3 (483)
10	5 (72)	42.8 (621)

OPERATING DATA:

- Maximum inlet pressure on "P" port:	125 bar - 1800 psi
- Maximum control flow:	15 L/min - 3.97 gpm
- Maximum tank pressure, on "T" port:	3 bar - 43 psi
- Hysteresis:	0,4/0,6 bar - 5.8/8.7 psi
- Controlled outlet pressure:	
- Range dependent on model:	2/14 bar - 28/200 psi 2.5/18 bar - 36/257 psi 3/20 bar - 43/286 psi 4/35 bar - 57/500 psi 5/45 bar - 71/643 psi
- Hydraulic fluid:	mineral oil
- Temperature ranges:	
Ambient:	-20 to 60 °C (-4 to 158 °F)
Max. fluid range:	-20 to 90 °C (-4 to 194 °F)
- Extreme viscosity range:	350 to 16 cSt
- Optimum operating viscosity range:	40 to 16 cSt

HOW TO ORDE

SHRC - 1 / 1 X G 1 - C2 AO - [ ][ ][ ][ ][ ][ ] - [ ][ ][ ]

SPECIAL VERSIONS

SWITCH TYPES
WORK IN PROGRESS

MODEL	
1	Single axis
2	Dual axis

Number of identical single axis remote controls

MODEL	
G	G1/4 BSP ISO 228
S	9/16-18 UNF SAE#6
M	M14x1.5 METRIC ISO 6149

HANDLES Options available only for single axis	
A0	Straight knob
AL	Straight knob with lock in neutral pos.
B0	Cylindric handle
B1	Cylindric handle with single push button
B2	Cylindric handle with 2 pos. non-detented rocker switch
B3	Cylindric handle with 3 pos. detented rocker switch
E0	Ergonomic handle
E1	Ergonomic handle with dead man side push button

PILOT PRESSURE RANGE	
1	2 - 14 bar (29 - 203 psi)
2	2 - 14 bar (29 - 203 psi) with final step
3	2,5 - 18 bar (36 - 261 psi)
4	2,5 - 18 bar (36 - 261 psi) with final step
5	3 - 20 bar (43 - 290 psi)
6	3 - 20 bar (43 - 290 psi) with final step
7	4 - 35 bar (58 - 507 psi)
8	4 - 35 bar (58 - 507 psi) with final step
9	5 - 45 bar (72 - 652 psi)
10	5 - 45 bar (72 - 652 psi) with final step

POSITIONING DEVICES Options available only for single axis	
C2	Standard spring return to neutral
C0	Lever mechanism with friction
SS	Lever mechanism locked in neutral
S0	Lever mechanism with friction locked in neutral
R2	Detent on up and down position
R4	Detent on up position
R5	Detent on down position
S2	Detent on up and down position locked in neutral
S4	Detent on up position locked in neutral
S5	Detent on down position locked in neutral

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