

Hyva Air Controls

Introduction

Hyva air controls

Hyva offers a complete range of air controls to engage the power take-off and valves in your hydraulic system. The standard Hyva controls meet every local legislation with safety features such as the automatic P.T.O. disengagement. This control makes driving with an engaged P.T.O. impossible. The tipping controls are standard delivered with three positions; tip, lower and automatic neutral locking position.

Standard Hyva air controls

The following controls are available:

- Air control for P.T.O.
- Air control for tipping valve
- Air control for P.T.O. & tipping valve

They are available with or without spring return on Tip control. The control for P.T.O./valve has an automatic disengage on the P.T.O. switch as an option.

The standard controls are equipped with a warning light to show that the P. T.O. is engaged. Perfectly proportional lowering is possible in combination with the Hyva PT valve. Proportional lowering makes partially unloading ever so easy. Detailed specification sheets are available on request.

Narrow air controls with additions for multi-sections

The multi-section air control can be used in cases where more functions should be controlled, for instance taildoors, multi-kaps or hookloaders. The tipping control is ideal for small cabine spaces.

Basic section for tippers

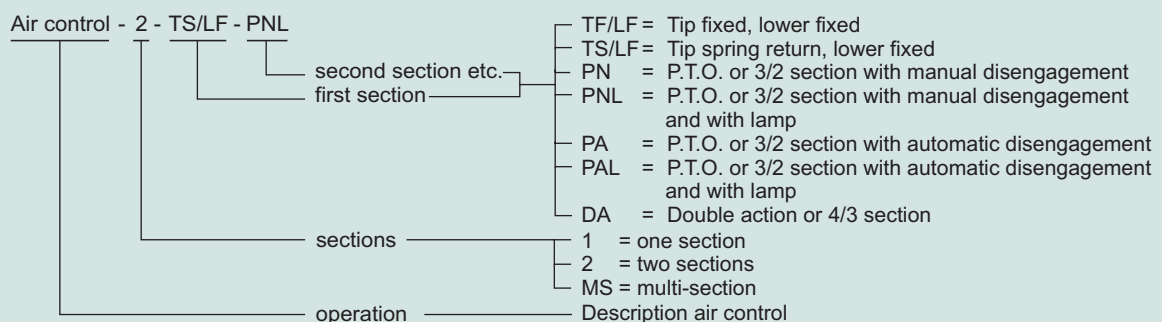
The multi-section air control always starts with the basic section 147 50 430 H, which is a double acting, double proportional section to operate (tipping) valves. The lever of the basic section is spring return to both sides up to 30° of the handle. When the operator pushes to full 32° the lever can be locked in the both end positions. In the basic section 2 threaded holes M6 at 58 mm pitch are available for fitting the valve on a mounting plate.

Extra sections

Additional up to 8 sections can be fitted. Following extra sections are available:

- 147 50 460 H as an extra 4/3 section to operate non-proportional valves with 3 positions.
- 147 50 455 H as an extra 3/2 section to operate non-proportional valves with 2 positions.
- 147 50 450 H as an extra 3/2 section with pneumatic pressure switch (to engage a control light) to operate non-proportional valves with 2 positions. This valve can be fitted only at the end because of the pressure switch.

Code system air control



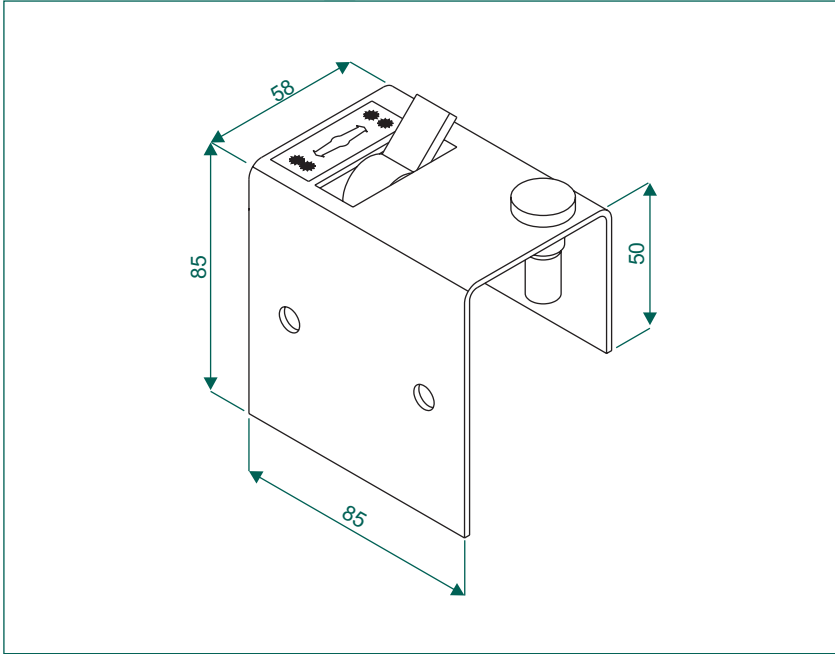
Hyva Air Controls

1-section air controls

Air control 1-section (P.T.O. control)

Part no.	Description	Kit no.	Max. press. (bar)	Min. press. (bar)	Ports		
					(1)	(3)	(23)
147 51 082 H	Air control P.T.O. - 1 - PN	FA150A	12 bar	5 bar	M12	M12	M12

Kit FA150A consists of control and air kit



Connections

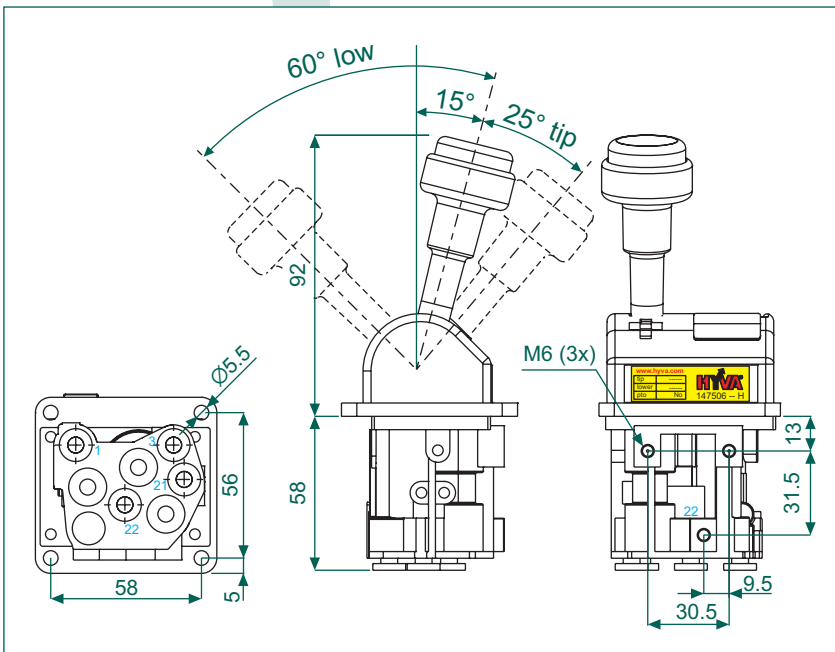
- 1 : air inlet
- 3 : air exhaust
- 23 : working port (P.T.O.)



Proportional air control 1-section (tipping valve control)

Part no.	Description	Kit no.	Max. press. (bar)	Min. press. (bar)	Ports			
					(1)	(3)	(21)	(22)
147 50 665 H	Air control tipping valve - 1 - TF/LF	FB150A	12 bar	5 bar	G1/8"	M5	G1/8"	G1/8"
147 50 667 H	Air control tipping valve - 1 - TS/LF		12 bar	5 bar	G1/8"	M5	G1/8"	G1/8"

Kit FB150A consists of control and air kit



Connections

- 1 : air inlet
- 3 : air exhaust
- 21 : lowering connection
(to tipping valve)
- 22 : tipping connection
(to tipping valve)



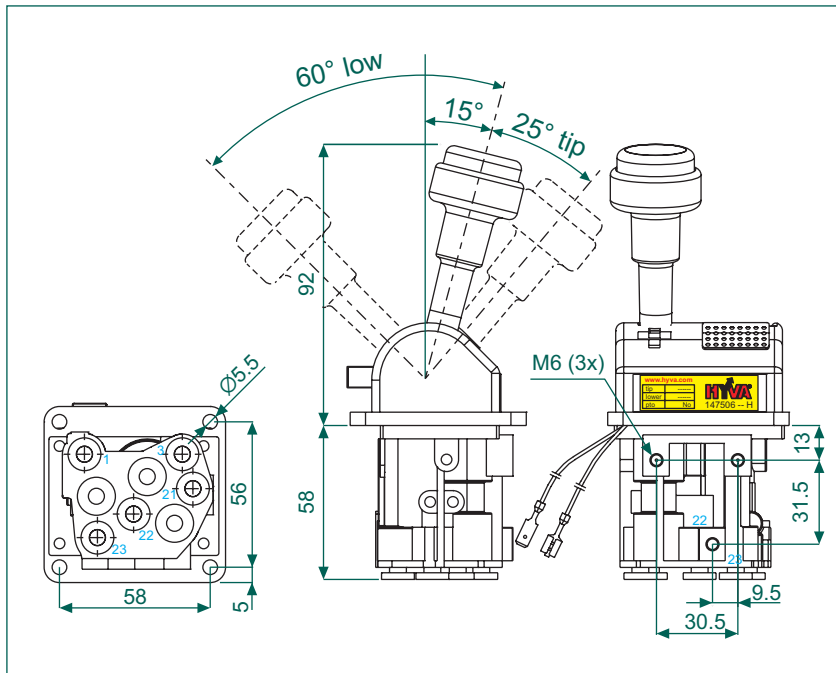
Hyva Air controls

2-section air controls

Proportional air control 2-sections (P.T.O. & tipping valve control)

Part no.	Description	Kit no. (bar)	Max. press. (bar)	Min. press. (1)	Ports				
					(3)	(21)	(22)	(23)	
147 50 644 H	Air cntrl. P.T.O./valve - 2 - TF/LF - PN		12 bar	5 bar	G1/8"	M5	G1/8"	G1/8"	G1/8"
147 50 646 H	Air cntrl. P.T.O./valve - 2 - TS/LF - PN	FC150A	12 bar	5 bar	G1/8"	M5	G1/8"	G1/8"	G1/8"
147 50 650 H	Air cntrl. P.T.O./valve - 2 - TF/LF - PA		12 bar	5 bar	G1/8"	M5	G1/8"	G1/8"	G1/8"
147 50 652 H	Air cntrl. P.T.O./valve - 2 - TS/LF - PA	FC250A	12 bar	5 bar	G1/8"	M5	G1/8"	G1/8"	G1/8"

Kit FC consists of the air control and air kit



Connections

- 1 : air inlet
- 3 : air exhaust
- 21 : lowering connection
(to tipping valve)
- 22 : tipping connection
(to tipping valve)
- 23 : working port P.T.O.



Air kit 1-section control for P.T.O.

Part no.	Description	Qty.
147 51 094 K	Air kit for P.T.O. consisting of:	
019 15 307 H	Elbow coupling for air control M12-6mm	2
148 75 007 15	Air tube 4x6 (15 m)	1
148 75 500	Air tube tie	4



Air kit 2-section controls for P.T.O. & valve

Part no.	Description	Qty.
147 50 119 K	Air kit for P.T.O./valve consisting of:	
092 25 005	T-piece for air tube 4x6	1
148 75 007 25	Air tube 4x6 (25 m)	1
148 75 500	Air tube tie	8



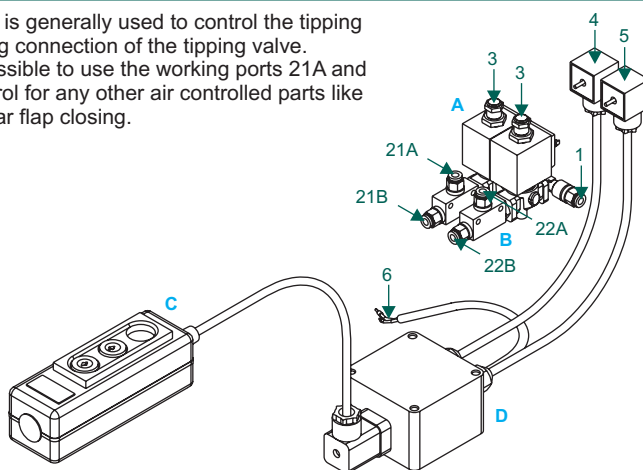
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2-section air controls

Electro pneumatic control 2-sections with pneumatic cabin connection

Part no.	Description	Max. press. (bar)	Min. press. (bar)	Ports				Volt (V)
				(1)	(3)	(21)	(22)	
147 52 201	Electro pneumatic dual control - 2 - TS/LF	12 bar	5 bar	G1/8"	G1/8"	G1/8"	G1/8"	24

This control is generally used to control the tipping and lowering connection of the tipping valve. It is also possible to use the working ports 21A and 22A to control for any other air controlled parts like P.T.O. or rear flap closing.



- 1 : air inlet
- 3 : air exhausts
- 21A : lowering connection (to tipping valve)
- 21B : lowering connection (from cab air control)
- 22A : tipping connection (to tipping valve)
- 22B : lowering connection (from cab air control)
- 4 : lowering solenoid connector
- 5 : tipping solenoid connector
- 6 : power supply connection

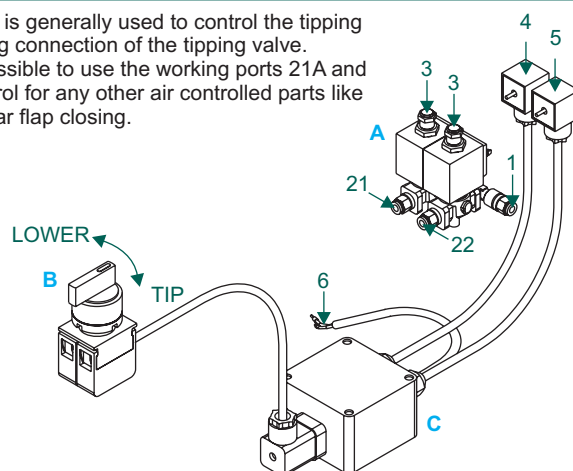
Spare parts

Pos.	Part no.	Description	Qty.
A	147 52 221	Electro pneumatic valves (complete)	1
B	147 52 222	Shuttle valve set	1
C	147 52 225	Remote control	1
D	147 52 226	Connecting box	1

Electro pneumatic control 2-sections

Part no.	Description	Max. press. (bar)	Min. press. (bar)	Ports				Volt (V)
				(1)	(3)	(21)	(22)	
147 52 200	Electro pneumatic control - 2 - TS/LF	12 bar	5 bar	G1/8"	G1/8"	G1/8"	G1/8"	24

This control is generally used to control the tipping and lowering connection of the tipping valve. It is also possible to use the working ports 21 and 22 to control for any other air controlled parts like P.T.O. or rear flap closing.



- 1 : air inlet
- 3 : air exhausts
- 21 : lowering connection (to tipping valve)
- 22 : tipping connection (to tipping valve)
- 4 : lowering solenoid connector
- 5 : tipping solenoid connector
- 6 : power supply connection box

Spare parts

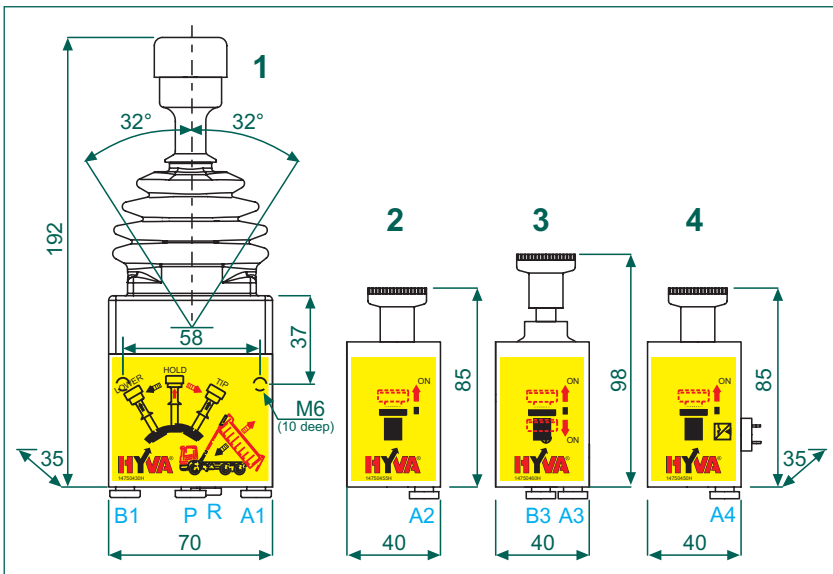
pos.	part no.	Description	Qty.
A	147 52 221	Electro pneumatic valves (complete)	1
B	147 54 135	Electric tipping switch	1
C	147 52 226	Connecting box	1

Hyva Air Controls

Multi-section air controls

Proportional air control multi section with optional additional sections

Part no.	Description	Pos.	Max. press. (bar)	Min. press. (bar)	Ports			
					(A)	(B)	(P)	(R)
147 50 430 H	Air control - MS - TF/LF (base)	1	12 bar	5 bar	6 mm	6 mm	6 mm	6 mm
147 50 440 H	Air control - MS - TS/LF (base)	1	12 bar	5 bar	6 mm	6 mm	6 mm	6 mm
147 50 455 H	Air control - MS - PN (3/2)	2	12 bar	5 bar	6 mm	-	-	-
147 50 460 H	Air control - MS - DA (4/3)	3	12 bar	5 bar	6 mm	6 mm	-	-
147 50 450 H	Air control - MS - PNL (4/3)	4	12 bar	5 bar	6 mm	-	-	-



- P : air inlet
- R : air exhaust
- A1 : tipping connection
(to tipping valve)
- B1 : lowering connection
(to tipping valve)
- A2 : working port additional
3/2 section
- A3 : working port additional
4/3 section
- A4 : working port additional
3/2 section with pressure
switch
- B3 : working port additional
4/3 section



Mounting kit for multi-section

The components should be ordered and will be supplied as loose parts and should be assembled during installation. To combine the valves you need to order mounting kits for the extra sections. Mounting kit numbers are 147 50 51x H, where x is the number of sections you want to add (so 147 50 513 H for three extra sections). The pneumatic hose sizes must have 6 mm OD, because connectors are integrated in the air control.

Part no.	Description
147 50 511 H	Mounting kit for one extra section
147 50 512 H	Mounting kit for two extra sections
147 50 513 H	Mounting kit for three extra sections

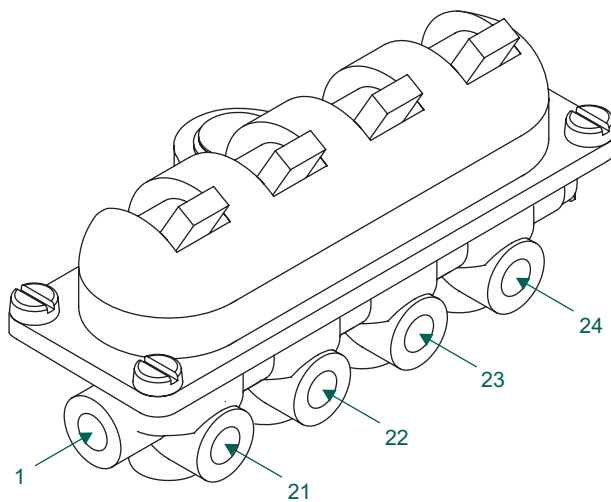


Hyva Air Controls

CAC air controls

Air control multi-section CAC series

Part no.	Description	Max. press. (bar)	Min. press. (bar)	Ports				
				(1)	(21)	(22)	(23)	(24)
147 50 210 H	Control pneumatic - 1 - TF/LF - PNL	12 bar	5 bar	M12x1,25	M12x1,25	-	-	-
147 50 220 H	Control pneumatic - 1 - TF/LF - PN	12 bar	5 bar	M12x1,25	M12x1,25	-	-	-
147 50 230 H	Control pneumatic - 2 - TF/LF - PNL	12 bar	5 bar	M12x1,25	M12x1,25	M12x1,25	-	-
147 50 240 H	Control pneumatic - 2 - TF/LF - PN	12 bar	5 bar	M12x1,25	M12x1,25	M12x1,25	-	-
147 50 250 H	Control pneumatic - 3 - TF/LF - PNL	12 bar	5 bar	M12x1,25	M12x1,25	M12x1,25	M12x1,25	-
147 50 260 H	Control pneumatic - 3 - TF/LF - PN	12 bar	5 bar	M12x1,25	M12x1,25	M12x1,25	M12x1,25	-
147 50 270 H	Control pneumatic - 4 - TF/LF - PNL	12 bar	5 bar	M12x1,25	M12x1,25	M12x1,25	M12x1,25	M12x1,25



- 1 : air inlet
- 21 : working port 1
- 22 : working port 2
- 23 : working port 3
- 24 : working port 4



Hyva Air Controls

Accessories

Pneumatic knock-off for front-end cylinders

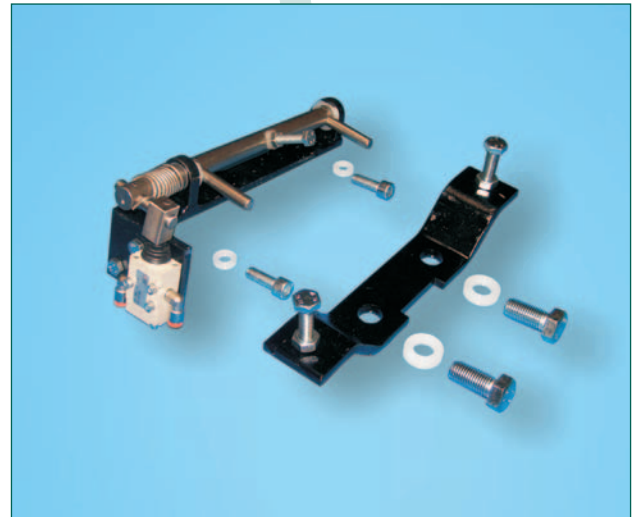
Part no.	Description
147 53 150	Knock-off MK V for FC
147 53 155	Knock-off MK V for FC with mounting support



Pneumatic knock-off for 3-way cylinders

Part no.	Description
147 52 955	Knock-off for DC

The hydraulic knock-off's can be found in the valve part of the catalogue



Air couplings

Part no.	Description
019 66 082 H	Air coupling - 00 - 6mm - 8mm - push-in
148 10 515	Air coupling - 00 - M5 - 6mm - push-in
148 10 517	Air coupling - 00 - 1/8" BSPOT - 6mm - push-in
148 10 566	Air coupling - 90 - 1/8" BSPOT - 6mm - push-in
148 11 005	Air coupling - 00 - M22 - 6mm - push-in
019 15 290 H	Air coupling - 00 - M12 - 6mm
019 15 307 H	Air coupling - 90 - M12 - 6mm



Air tube connectors

Part no.	Description
092 25 001	Air coupling - 00 - 6mm - 6mm
092 25 002	Air coupling - 00 - 8mm - 8mm
092 25 003	Air coupling - 00 - 10mm - 10mm
092 25 004	Air coupling - 00 - 12mm - 12mm



Hyva Air Controls

Accessories

T-piece for air tube

Part no.	Description
092 25 005	T-piece for air tube 6mm - push-in



Pneumatic pressure indicator

Part no.	Description
092 25 010	T-piece pneumatic 3x 1/8" BSPIT
019 64 001 H	Pressure switch pneumatic 1/8" BSPOT
019 64 000 H	Control light



Air tube

Part no.	Description
148 75 00715	air tube - L=15m - coil=4x6mm
148 75 00725	air tube - L=25m - coil=4x6mm
148 75 00735	air tube - L=35m - coil=4x6mm



Air tube 3-lines

Part no.	Description
148 75 030	Air tube 3-line in 1 jacket 4x6mm (3X)

