

NET VISCA Commands of TP1

Serial control Command Set

No.	Feature	Item	Command package	Description
3	CAM_Zoom	Stop	8x 01 04 07 00 FF	p = 0(low) - 7(high)
		Tele(Variable)	8x 01 04 07 2p FF	
		Wide(Variable)	8x 01 04 07 3p FF	
4	CAM_Focus (Focus)	Auto Focus	8x 01 04 38 02 FF	AF On/Off
22	CAM_Memory (Preset)	Set	8x 01 04 3F 01 pp FF	
		Recall	8x 01 04 3F 02 pp FF	
27	Pan_tiltDrive	Up	8x 01 06 01 VV WW 03 01 FF	VV: Pan speed 0x01 (low speed) to 0x18 (high speed) WW: Tilt speed 0x01 (low speed) to 0x14 (high speed) YYYY: Pan Position ZZZZ: Tilt Position
		Down	8x 01 06 01 VV WW 03 02 FF	
		Left	8x 01 06 01 VV WW 01 03 FF	
		Right	8x 01 06 01 VV WW 02 03 FF	
		Upleft	8x 01 06 01 VV WW 01 01 FF	
		Upright	8x 01 06 01 VV WW 02 01 FF	
		DownLeft	8x 01 06 01 VV WW 01 02 FF	
		DownRight	8x 01 06 01 VV WW 02 02 FF	
		Stop	8x 01 06 01 VV WW 03 03 FF	
		Home	8x 01 06 04 FF	

Serial query command set

No.	Command	Command package	Return package	Description
1	CAM_PowerInq	8x 09 04 00 FF	y0 50 02 FF	On
			y0 50 03 FF	Off(Standby)
2	CAM_ZoomPosInq	8x 09 04 47 FF	y0 50 0p 0q 0r 0s FF	pqrs: Zoom Position
3	CAM_FocusAFModelInq	8x 09 04 38 FF	y0 50 02 FF	Auto Focus
			y0 50 03 FF	Manual Focus
4	CAM_FocusPosInq	8x 09 04 48 FF	y0 50 0p 0q 0r 0s FF	pqrs: Focus Position
5	CAM_FocusNearLimitInq	8x 09 04 28 FF	y0 50 0p 0q 0r 0s FF	pqrs: Focus Near LimitPosition
6	CAM_WBModelInq	8x 09 04 35 FF	y0 50 00 FF	Auto
			y0 50 01 FF	Indoor mode
			y0 50 02 FF	Outdoor mode
			y0 50 03 FF	OnePush mode
			y0 50 05 FF	Manual

7	CAM_RGainInq	8x 09 04 43 FF	y0 50 00 00 0p 0q FF	pq: R Gain
8	CAM_BGainInq	8x 09 04 44 FF	y0 50 00 00 0p 0q FF	pq: B Gain
9	CAM_AEModeInq	8x 09 04 39 FF	y0 50 00 FF	Full Auto
			y0 50 03 FF	Manual
			y0 50 0A FF	Shutter priority
			y0 50 0B FF	Iris priority
			y0 50 0D FF	Bright
10	CAM_ShutterPosInq	8x 09 04 4A FF	y0 50 00 00 0p 0q FF	pq: Shutter Position
11	CAM_IrisPosInq	8x 09 04 4B FF	y0 50 00 00 0p 0q FF	pq: Iris Position
12	CAM_GainPosInq	8x 09 04 4C FF	y0 50 00 00 0p 0q FF	pq: Gain Position
13	CAM_BrightPosInq	8x 09 04 4D FF	y0 50 00 00 0p 0q FF	pq: Bright Position
14	CAM_ExpCompModeInq	8x 09 04 3E FF	y0 50 02 FF	On
			y0 50 03 FF	Off
15	CAM_ExpCompPosInq	8x 09 04 4E FF	y0 50 00 00 0p 0q FF	pq: ExpComp Position
16	CAM_BacklightModeInq	8x 09 04 33 FF	y0 50 02 FF	On
			y0 50 03 FF	Off
17	CAM_Noise2DModeInq	8x 09 04 53 FF	y0 50 0p FF	Noise Reduction (2D) p: 0 to 5
18	CAM_Noise3DModeInq	8x 09 04 54 FF	y0 50 0p FF	Noise Reduction (3D) p: 0 to 5
19	CAM_FlickerModeInq	8x 09 04 55 FF	y0 50 0p FF	p: Flicker Settings(0: OFF, 1: 50Hz, 2: 60Hz)
20	CAM_ApertureInq	8x 09 04 42 FF	y0 50 00 00 0p 0q FF	pq: Aperture Gain
			y0 50 02 FF	Off
21	CAM_PictureEffectModeInq	8x 09 04 63 FF	y0 50 03 FF	Neg.Art
			y0 50 04 FF	B&W
22	CAM_MemoryInq	8x 09 04 3F FF	y0 50 0p FF	p: Memory number last operated.
23	SYS_MenuModeInq	8x 09 06 06 FF	y0 50 02 FF	On
			y0 50 03 FF	Off
24	CAM_LR_ReverselInq	8x 09 04 61 FF	y0 50 02 FF	On
			y0 50 03 FF	Off
25	CAM_PictureFlipInq	8x 09 04 66 FF	y0 50 02 FF	On
			y0 50 03 FF	Off
26	CAM_IDInq	8x 09 04 22 FF	y0 50 0p 0q 0r 0s FF	pqrs: Camera ID
27	CAM_VersionInq	8x 09 00 02 FF	y0 50 ab cd mn pq rs tu vw FF	ab: Factory Code(00: VHD, 01:MR, 08:T) cd: Hardware Version mnpq: ARM Version rstu: SOC Version vw: Camera model
28	Pan-tiltMaxSpeedInq	8x 09 06 11 FF	y0 50 ww zz FF	ww: Pan Max Speed zz: Tilt Max Speed
29	Pan-tiltPosInq	8x 09 06 12 FF	y0 50 0w 0w 0w 0w 0z 0z 0z 0z FF	www: Pan Position zzz: Tilt Position
30	Pan-tiltModeInq	8x 09 06 10 FF	y0 50 pq rs FF	pqrs: Pan/Tilt Status

31	CAM_DateInq	8x 09 00 04 FF	y0 50 0r ss uu uu vv ww 0D FF	Version date r: Big Version Number ss: Little Version Number uuuu: Year vv: Month ww: Day
32	CAM_ModelInq	8x 09 04 A6 FF	y0 50 00 FF	Mode0
			y0 50 02 FF	Mode2
33	CAM_MeteringModelInq	8x 09 04 3A FF	y0 50 00 FF	Average Metering
			y0 50 01 FF	Center-weighted Average Metering
34	CAM_GainLimitInq	8x 09 04 2C FF	y0 50 0q FF	p: Gain Limit
35	CAM_DHotPixelInq	8x 09 04 56 FF	y0 50 0q FF	p: Dynamic Hot Pixel Setting (0: Off, level 1 to 5)
36	CAM_AFSensitivityInq	8x 09 04 58 FF	y0 50 01 FF	High
			y0 50 02 FF	Normal
			y0 50 03 FF	Low
37	CAM_BrightnessInq	8x 09 04 A1 FF	y0 50 00 00 0p 0q FF	pq: Brightness Position
38	CAM_ContrastInq	8x 09 04 A2 FF	y0 50 00 00 0p 0q FF	pq: Contrast Position
39	CAM_FlipInq	8x 09 04 A4 FF	y0 50 00 FF	Off
			y0 50 01 FF	Flip-H
			y0 50 02 FF	Flip-V
			y0 50 03 FF	Flip-HV
40	CAM_IridixInq	8x 09 04 A7 FF	y0 50 00 00 0p 0q FF	pq: Iridix Position
41	Color System Inq	8x 09 04 A8 FF	y0 50 02 FF	VGA Mode On
			y0 50 03 FF	VGA Mode Off
42	CAM_GammaInq	8x 09 04 5B FF	y0 50 0p FF	p: Gamma setting (0x00~0x0A)
43	CAM_AFZone	8x 09 04 AA FF	y0 50 00 FF	Top
			y0 50 01 FF	Center
			y0 50 02 FF	Bottom
44	CAM_DVIModeInq	8x 09 04 AB FF	y0 50 02 FF	DVI Mode:HDMI
			y0 50 03 FF	DVI Mode:DVI
45	CAM_ColorHueInq	8x 09 04 4F FF	y0 50 00 00 00 0p FF	p: Color Hue setting 0h (- 14 dgree) to Eh (+14 degrees)
46	CAM_AWBSensitivityInq	8x 09 04 A9 FF	y0 50 00 FF	High
			y0 50 01 FF	Normal
			y0 50 02 FF	Low
47	CAM_LensBlockInq	8x 09 7E 7E 00 FF	y0 50 0u 0u 0u 0u 00 00 0v 0v 0v 0v 00 0w 00 FF	uuu: Zoom Position vvv: Focus Position w.bit0: Focus Mode 1: Auto 0: Manual

48	CAM_CameraBlockInq	8x 09 7E 7E 01 FF	y0 50 0p 0p 0q 0q 0r 0s tt 0u vv ww 00 xx 0z FF	pp: R_Gain qq: B_Gain r: WB Mode s: Aperture tt: AE Mode u.bit2: Back Light u.bit1: Exposure Comp. vv: Shutter Position ww: Iris Position xx: Bright Position z: Exposure Comp. Position
49	CAM_EnlargementBlockInq	8x 09 7E 7E 03 FF	y0 50 00 00 00 00 00 00 0p 0q rr 0s 0t 0u FF	p: AF sensitivity q.bit0: Picture flip(1:On, 0:Off) rr.bit6~3: Color Gain(0h(60%) to Eh(200%)) s: Flip(0: Off, 1:Flip-H, 2:Flip-V, 3:Flip-HV) t.bit2~0: NR2D Level u: Gain Limit

Commands for control the videoconference

Name	Command
OK	A1 06 02 F6 09 B7 48 FF
CALL	A1 06 02 FD 02 B7 48 FF
VOLUME_UP	A1 06 02 F9 06 B7 48 FF
VOLUME_DOWN	A1 06 02 FE 01 B7 48 FF
HANGUP	A1 06 02 F0 0F B7 48 FF
1	A1 06 02 F3 0C B7 48 FF
2	A1 06 02 EE 11 B7 48 FF
3	A1 06 02 F1 0E B7 48 FF
4	A1 06 02 EF 10 B7 48 FF
5	A1 06 02 EA 15 B7 48 FF
6	A1 06 02 ED 12 B7 48 FF
7	A1 06 02 EB 14 B7 48 FF
8	A1 06 02 E6 19 B7 48 FF
9	A1 06 02 E9 16 B7 48 FF
0	A1 06 02 E2 1D B7 48 FF
SPOT (.)	A1 06 02 E7 18 B7 48 FF
POUND (#)	A1 06 02 E5 1A B7 48 FF
BACKSPACE	A1 06 02 D5 2A B7 48 FF
PRESET_CLEAR	A1 06 02 DD 22 B7 48 FF
PRESET_CALL	A1 06 02 DB 24 B7 48 FF
PRESET_SAVE	A1 06 02 DA 25 B7 48 FF
ADDRESSBOOK	A1 06 02 DC 23 B7 48 FF
UP	A1 06 02 FA 05 B7 48 FF
DOWN	A1 06 02 F2 0D B7 48 FF
RIGHT	A1 06 02 F5 0A B7 48 FF

LEFT	A1 06 02 F7 08 B7 48 FF
BACK	A1 06 02 E0 1F B7 48 FF
HOME	A1 06 02 D6 29 B7 48 FF
MENU	A1 06 02 BC 43 B7 48 FF
POWER	A1 06 02 E4 1B B7 48 FF
F1	A1 06 02 DF 20 B7 48 FF
F2	A1 06 02 DE 21 B7 48 FF
F3	A1 06 02 D8 27 B7 48 FF
F4	A1 06 02 D7 28 B7 48 FF
VOLUME_DOWN	A1 06 02 FE 01 B7 48 FF
MUTE	A1 06 02 E1 1E B7 48 FF
FECC	A1 06 02 BE 41 B7 48 FF
INFO	A1 06 02 D9 26 B7 48 FF
CAMERA	A1 06 02 E3 1C B7 48 FF
LAYOUT	A1 06 02 F4 0B B7 48 FF
CONTENT	A1 06 02 EC 13 B7 48 FF

Serial port return command

No.	Command	Feature	Command package	Comment
1	ACK/Completion Messages	ACK	z0 4y FF (y: Socket No.)	Return when the command is accepted.
		Completion	z0 5y FF (y: Socket No.)	Return when the command has been executed.
2	Error Messages	Syntax Error	z0 60 02 FF	Returned when the command format is different or when a command with illegal command parameters is accepted.
		Command Buffer Full	z0 60 03 FF	Indicates that two sockets are already being used(executing two commands) and the command could not be accepted when received.
		Command Canceled	z0 6y 04 FF (y: Socket No.)	Returned when a command which is being executed in a socket specified by the cancel command is canceled. The completion message for the command is not returned.
		No Socket	z0 6y 05 FF (y: Socket No.)	Returned when no command is executed in a socket specified by the cancel command, or when an invalid socket number is specified.

		Command Not Executable	z0 6y 41 FF (y: Execution command Socket No. Inquiry command: 0)	Returned when a command cannot be executed due to current conditions. For example, when commands controlling the focus manually are received during auto focus.
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Pelco protocol command test

Protocol	No.	Feature	Sent command	Expected outcome	Remarks
Pelco-P Protocol	1	PTZ upward	a0 01 00 08 00 30 af 39	PTZ upward	Description of the command format of the P-P protocol: The first bit is STX, always A0H; the second bit is the address code, the range is 00~1F; the third and four is the instruction code; the fifth and six is the data code; the seventh bit is ETX, always AFH, the eighth Bit is a check code; Where xx is the address code, the range is 00~1f; vv is the horizontal speed, ww is the vertical speed; yy is the preset position number
	2	PTZ downward	a0 01 00 10 00 30 af 21	PTZ downward	
	3	PTZ leftward	a0 01 00 04 10 00 af 15	PTZ leftward	
	4	PTZ rightward	a0 01 00 02 10 00 af 13	PTZ rightward	
	5	Zoom far	a0 01 00 20 00 00 af 21	Zoom far	
	6	Zoom near	a0 01 00 40 00 00 af 41	Zoom near	
	7	Set preset 1	a0 01 00 03 00 01 af 03	Set preset 1	
	8	Call preset 1	a0 01 00 07 00 01 af 07	Call preset 1	
	9	Delete preset 1	a0 01 00 05 00 01 af 01	Delete preset 1	
	10	Focus near	A0 00 01 00 00 00 AF 0E	Focus near	
	11	Focus far	A0 00 00 80 00 00 AF 8F	Focus far	
	12	Auto focus	a0 xx 00 2b 00 01 af 05	Auto focus	
	13	Manual focus	a0 xx 00 2b 00 02 af 26	Manual focus	
	14	Query horizontal position	a0 xx 00 51 00 00 af 5e	Query horizontal position	
	15	Query vertical position	a0 xx 00 53 00 00 af 5c	Query vertical position	
	16	Query zoom value	a0 xx 00 55 00 00 af 5a	Query zoom value	
Pelco-D Protocol	1	PTZ upward	ff 01 00 08 00 ff 08	PTZ upward	Description of the command format of the P-P protocol: The first bit is the sync byte, which is always FFH; the second bit is the address code, the range is 00~FE; the third and fourth bits are the instruction code; the fifth and sixth bits are the data code; the
	2	PTZ downward	ff 01 00 10 00 ff 10	PTZ downward	
	3	PTZ leftward	ff 01 00 04 ff 00 04	PTZ leftward	
	4	PTZ rightward	ff 01 00 02 ff 00 02	PTZ rightward	
	5	Zoom far	ff 01 00 40 00 00 41	Zoom far	
	6	Zoom near	ff 01 00 20 00 00 21	Zoom near	
	7	Set preset 1	ff 01 00 03 00 01 05	Set preset 1	
	8	Call preset 1	ff 01 00 07 00 01 09	Call preset 1	

9	Delete preset 1	ff 01 00 05 00 01 07	Delete preset 1	seventh bit is the check code; Where xx is the address code, the range is 00~1f; vv is the horizontal speed, ww is the vertical speed; yy is the preset position number
10	Focus near	ff xx 00 00 00 00 01	Focus near	
11	Focus far	ff xx 00 80 00 00 81	Focus far	
12	Auto focus	ff xx 00 2B 00 01 2D	Auto focus	
13	Manual focus	ff xx 00 2B 00 02 2E	Manual focus	
14	Query horizontal position	ff xx 00 51 00 00 52	Query horizontal position	
15	Query vertical position	ff xx 00 53 00 00 54	Query vertical position	
16	Query zoom value	ff xx 00 55 00 00 56	Query zoom value	