

Commands overview of Vision systems

X = available; V = version of software	remote code	pictor® M48E Measure (V:4.19.103)	pictor® MxxE (V:4.19.103)	pictor® M16xx/M18xx (V:4.19.103)	pictor® M12xx/ M14xx (V:4.14.56)	vicosys® 2300 / 2400/2480 (V:4.16.175)
<u>Image analysis command</u>						
Grab image	0x01	X	X	X	X	X
Shutter speed	0x07	X	X	X	X	X
Asynchronous Flash	0x49	X	X	X	X	X
Video Mode	0x00			X	X	X
Display	0x05	X	X	X	X	X
Locate Point	0x10	X	X	X	X	X
Locate Line	0x12	X	X	X	X	X
Locate Circle	0x13	X	X	X	X	X
Locate Contour	0x20	X	X	X	X	X
360° Pattern search	0xD1					X
Pattern search	0x28		X	X	X	X
Pattern save	0x2B		X	X	X	X
Blob analysis	0x27	X	X	X	X	X
Rotation based on moments	0xD8		X	X		X
Rotary angle	0x29		X	X	X	X
Rotate image	0x6E		X	X	X	X
Delete image	0x06		X	X	X	X
Image filter	0x03		X	X	X	X
Picture transformation	0x6D		X	X	X	
Colour blob analysis	0xD5		X ⁵			X
Colour test	0x1E		X ⁵			X
Colour binarisation	0xD6		X ⁵			X
Colour conversation	0xD7		X ⁵			X
Line-scan camera	0xD9					X
<u>Commands for measurement evaluation</u>						
Distance Angle	0x30	X	X	X	X	X
Angle	0x31	X	X	X	X	X
Combine results	0x36		X	X	X	X
Define point	0x32		X	X	X	X
Define line	0x33		X	X	X	X
Define circle	0x34		X	X	X	X
Straightness	0x21		X	X	X	X
Roundness	0x22		X	X	X	X
Centre point of contour	0x23	X	X	X	X	X
Extreme point of contour	0x25		X	X	X	X
Curve analysis	0x24		X	X	X	X
Contour distance	0x26		X	X	X	X
Contour rotation orientation	0x2A		X	X	X	X

Commands overview of Vision systems I

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<u>Test commands</u>						
Focus	0x1A		X	X	X	X
Test gray value	0x18		X	X	X	X
Brightness offset	0x1C		X	X	X	X
Test brightness	0x1B		X	X	X	X
Count pixels	0x1F		X	X	X	X
Image reference	0x09		X	X	X	X
Test surface	0x19		X	X	X	X
Transition at line	0x3E	X	X	X	X	X
Transition at circle	0x3D	X	X	X	X	X
Find / identify object	0x64		X	X	X	X
Learn object	0x63		X	X	X	X
Learn/set text	0x61		X	X	X	X
Read text	0x62		X	X	X	X
Read Data matrix code	0x7A		X	X	X	X
Mask examination	0xDD		X	X		X
Extended pattern search	0xDB					X
<u>Commands for system calibration</u>						
Geometry sets	0x39		X	X	X	X
Calibrate	0x38	X	X	X	X	X
White balance	0xD0		X ⁵			X
<u>Commands for Documentation, selection and statistik</u>						
Check and sort result	0x5A		X	X	X	
Evaluate and send result	0x5C	X	X	X	X	X
String evaluation	0x5B		X	X	X	X
Send data	0x53	X	X	X	X	X
Superimpose	0x51	X	X	X	X	X
Send image	0xA8	X	X	X	X	X
Image repetition Memory	0x0A					
Wrong colour expenditure	0x08			X	X	X
Extern data storage	0xDC					X

Commands overview of Vision systems II

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<u>Process control instructions</u>						
Line I / O	0x41	X	X	X	X	X
Port I / O	0x42	X	X	X	X	X
Robot communication	0x69				X ³	
Field bus Gateway	0x6C		X	X	X ³	X
Process coupling module	0xD2		X	X		X
Port control	0x4A		X	X	X	X
Robot calibration	0x6B		X	X	X	
Data transfer	0xD3	X	X	X	X	X
<u>Test program utilities</u>						
Program control	0x45	X	X	X	X	X
Indexed Branch	0x4D		X	X	X	X
Stop watch	0x47	X	X	X	X	X
Break	0x44	X	X	X	X	X
Counter	0x46	X	X	X	X	X
System time	0x4E		X	X	X	X
Geometry transfer	0x59		X	X	X	X
Coordinate transformation	0x6A		X	X	X	
<u>Remote controlling instructions</u>						
Interrogate system parameters	0xF0	X	X	X	X	X
Directory	0x96	X	X	X	X	X
Free Memory	0x97	X	X	X	X	X
Load program (Set mode)	0x90	X	X	X	X	X
End program loading (Reset mode)	0x91	X	X	X	X	X
Switch program	0x98	X	X	X	X	X
Delete data	0x95	X	X	X	X	X
Set baud rate	0xE9	X	X	X	X ³	X
Set system parameters	0xEA	X	X	X	X	X
I/O Extensionbox switching on/ off	0xF1	X	X	X	X	

Commands overview of Vision systems III

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Save parameters	0xF9	X	X	X	X	X
Query current command code	0xFA	X	X	X	X	X
Save file system in flash memory	0xFB	X	X			X
Query operating mode	0xFC	X	X	X	X	X
Start communication	0xFD	X	X	X	X	X
End communication	0xFE	X	X	X	X	X
Inquiries of the last answer	0xFF	X	X	X	X	X
remoter utilities						
Display	0x02	X	X	X	X	X
Send geometry element/result	0x52	X	X	X	X	X
Reset geometry structure/read definitions bit mask	0x55	X	X	X	X	X
Modem control	0x68					
Send image/receive image	0xA0	X	X	X	X	X
Images store/load	0x5D			X	X ¹	X
Live image transfer	0xA7	X	X	X	X ²	X
Color outlay	0x0B					
Utilities for vicosys	0x80					X
1) not available on pictor® M1228						
2) available only on Ethernet camera						
3) available only on RS232 camera						
4) not supported in vcwin®						
5) available only on colour camera						