

(The RealTime interface has been deprecated since version 3.5. It is recommended to use the RTDE Interface, instead)					
Meaning	Type	Number of values	Size in bytes	Gruplot col.	Notes
Message Size	integer	1	4		Total message length in bytes
Time	double	1	8	1	Time elapsed since the controller was started
q target	double	6	48	2 - 7	Target joint positions
qd target	double	6	48	8 - 13	Target joint velocities
qdd target	double	6	48	14 - 19	Target joint accelerations
I target	double	6	48	20 - 25	Target joint currents
M target	double	6	48	26 - 31	Target joint moments (torques)
q actual	double	6	48	32 - 37	Actual joint positions
qd actual	double	6	48	38 - 43	Actual joint velocities
I actual	double	6	48	44 - 49	Actual joint currents
I control	double	6	48	50 - 55	Joint control currents
Tool vector actual	double	6	48	56 - 61	Actual Cartesian coordinates of the tool: (x,y,z,rx,ry,rz), where rx, ry and rz is a rotation vector representation of the tool orientation
TCP speed actual	double	6	48	62 - 67	Actual speed of the tool given in Cartesian coordinates
TCP force	double	6	48	68 - 73	Generalised forces in the TCP
Tool vector target	double	6	48	74 - 79	Target Cartesian coordinates of the tool: (x,y,z,rx,ry,rz), where rx, ry and rz is a rotation vector representation of the tool orientation
TCP speed target	double	6	48	80 - 85	Target speed of the tool given in Cartesian coordinates
Digital input bits	double	1	8	86	Current state of the digital inputs. NOTE: these are bits encoded as int64_t, e.g. a value of 5 corresponds to bit 0 and bit 2 set high
Motor temperatures	double	6	48	87 - 92	Temperature of each joint in degrees celsius
Controller Timer	double	1	8	93	Controller realtime thread execution time
Test value	double	1	8	94	A value used by Universal Robots software only
Robot Mode	double	1	8	95	Robot mode RobotModes
Joint Modes	double	6	48	96-101	Joint control modes ControlModes
Safety Mode	double	1	8	102	Safety mode SafetyModeTypes
Tool Accelerometer values	double	3	24	109 - 111	Tool x,y and z accelerometer values (software version 1.7)
	double	6	48	112 - 117	Used by Universal Robots software only
Speed scaling	double	1	8	118	Speed scaling of the trajectory limiter
Linear momentum norm	double	1	8	119	Norm of Cartesian linear momentum
	double	1	8	120	Used by Universal Robots software only
	double	1	8	121	Used by Universal Robots software only
V main	double	1	8	122	Masterboard: Main voltage
V robot	double	1	8	123	Masterboard: Robot voltage (48V)
I robot	double	1	8	124	Masterboard: Robot current
V actual	double	6	48	125 - 130	Actual joint voltages
Digital outputs	double	1	8	131	Digital outputs
Program state	double	1	8	132	Program state
Elbow position	double	3	24	133 - 135	Elbow position
Elbow velocity	double	3	24	136 - 138	Elbow velocity
Safety Status	double	1	8	139	Safety status SafetyStatusType
TOTAL		140	1116		140 values in a 1116 byte package

If it is experienced that less than 1108 bytes are received, the protocol for the actual received bytes also follows the structure listed above, only not containing the entries at leading up to the 1108th byte.