10. Register List

If using the register, refer to "YRC1000 OPTIONS INSTRUCTIONS FOR Concurrent I/O (RE-CKI-A467)" or "YRC1000micro OPTIONS INSTRUCTIONS FOR Concurrent I/O (RE-CKI-A469)".

However, do not use the following registers because they are used for the collaborative operations.

M309	M308	M307	M306	M305	M304	M303	M302	M301	M300
Reserved	Reserved	Reserved	Reserved	Reserved	Reserved	Reserved	Reserved	Reserved	Reserved

M319	M318	M317	M316	M315	M314	M313	M312	M311	M310
Reserved	Reserved	Reserved	Reserved	Estimated external torque value T	Estimated external torque value B	Estimated external torque value R	Estimated external torque value U	Estimated external torque value L	Estimated external torque value S

M329	M328	M327	M326	M325	M324	M323	M322	M321	M320
Reserved	Reserved	Reserved	Estimated TCP external force value resultant	Estimated TCP external force Mz	Estimated TCP external force My	Estimated TCP external force Mx	Estimated TCP external force Fz	Estimated TCP external force Fy	Estimated TCP external force Fx

M339	M338	M337	M336	M335	M334	M333	M332	M331	M330
Reserved	Reserved	Reserved	Reserved	Sensor data T (CH1)	Sensor data B (CH1)	Sensor data R (CH1)	Sensor data U (CH1)	Sensor data L (CH1)	Sensor data S (CH1)

M349	M348	M347	M346	M345	M344	M343	M342	M341	M340
Reserved	Reserved	Reserved	Reserved	Sensor data T (CH2)	Sensor data B (CH2)	Sensor data R (CH2)	Sensor data U (CH2)	Sensor data L (CH2)	Sensor data S (CH2)

M359	M358	M357	M356	M355	M354	M353	M352	M351	M350
Reserved	Reserved	Reserved	Reserved	External torque T: Maximum value	External torque B: Maximum value	External torque R: Maximum value	External torque U: Maximum value	External torque L: Maximum value	External torque S: Maximum value

M369	M368	M367	M366	M365	M364	M363	M362	M361	M360
Reserved	Reserved	Reserved	TCP external force resultant: Maximum value	TCP external force Mz: Maximum value	TCP external force My: Maximum value	TCP external force Mx: Maximum value	TCP external force Fz: Maximum value	TCP external force Fy: Maximum value	TCP external force Fx: Maximum value

M379	M378	M377	M376	M375	M374	M373	M372	M371	M370
Reserved	Reserved	Reserved	Reserved	Reserved	Reserved	Reserved	Reserved	Reserved	Reserved

M517	M516	M513	M512	M505	M504	M503	M502	M501	M500
Force FB (R1) Fy	Force FB (R1) Fx	Resultant force FB (R1) rotation	Resultant force FB (R1) translation	Force command (R1) Mz	Force command (R1) My	Force command (R1) Mx	Force command (R1) Fz	Force command (R1) Fy	Force command (R1) Fx

M547	M546	M545	M544	M529	M528	M521	M520	M519	M518
-	-	-	-	Force sense status (R1)	Fitting status (R1)	Force FB (R1) Mz	Force FB (R1) My	Force FB (R1) Mx	Force FB (R1) Fz

M558	M553	M552	M551	M550	M549
System reserved	MSCH status (R1)	FSCH status (R1)	MPRES status (R1)	FPRES status (R1)	-

Each register value is expressed in units of 0.1 [N] (or [Nm]) and output by adding an offset of 10000.

For how to interpret the value, refer to the following examples.

Example:

Register	Value	External force (interpretation)	Calculation method
M310	9500	-50.0 [Nm]	(9500 - 10000)×0.1 = -50.0[Nm]
M321	11055	105.5[N]	(11055 - 10000)×0.1 = 105.5[N]