

## Common specification

Item		Explanation of functions
General	Test piece data setting	Data and memo setting for test piece, CAN communication data setting
	Vehicle data setting	Data and memo setting for vehicle Running resistance data setting (ABC input method, F input method, full-scale projection area method)
	Vehicle data printing	Printing the vehicle data
Display	All-time display function	Display of the control mode and the detection value on a drawing showing the mechanical configuration (test piece + dynamometer) Display of the file names of the test piece that is being set and the vehicle data Continuous display of the instantaneous value of three items
	Monitor display function	Display parts Analog meter, digital meter, bar graph, trend, number value list
Operation	Manual operation function	ON / OFF of the dynamometer and the auxiliary machines ON / OFF of the IG, the FUEL, and the starter (when the engine is in operation) Alarm stop, failure recovery, failure history, alarm exclusion
	Manual operation function	Operation of the dynamometer, selection of the control mode (solo operation of the dynamometer (for maintenance)) Throttle operation of the engine Selection of the shift position
	Operation of the heater	Input of the setting value for the heater (temperature of cooling water, temperature of lubricant, ATF temperature)
	On-site switching operation function	Operation of switching to the on-site operation unit
	Operation prohibiting function	Locking of operations of the dynamometer, etc.
	Simple measurement function	Simple continuous measurement of measurement items, and saving measurement results as CSV files Minimum sampling period 1ms
Measurement	High speed measurement function	Minimum sampling period 1ms Measurement trigger function, pre-trigger measurement function, post-trigger measurement function Saving the measurement results in CSV or MEID (MEID:Oscope*1 file format)
	Data processing function (optional)	Processing data saved in MEID format with Oscope*1
	Accumulated rotation speed measurement	Measuring the accumulated rotation speed of the absorption side dynamometer
Monitoring	Upper and lower limits monitor function	Maximum 200 items (including the operation items) Alarm output: maximum 7 types
	Facility failure monitor function	Facility failure items: maximum 127 items
	Abnormality newsflash display	Newsflash display at the occurrence of abnormality
	Failure history display function	Management of histories of upper and lower limit abnormalities and facility failures
	Measurement function at a time of abnormality	Data measurement after and before the occurrence of abnormality Pre-trigger measurement function, post-trigger measurement function
External equipment	CAN communication function	Data transmission and reception by CAN
	Multi points measurement function	Acquiring instantaneous data from EX1016A (temperature) and EX1629 (pressure and vibration) manufactured by VTI Instruments
Scheduler	Scheduler data setting	Pattern data editing of the scheduler
	Scheduler operation function	Starting, pausing, completing, starting from the indicated position
	Scheduler operation monitor	Pattern graph monitor, number value monitor
	Setting of the operation pattern	Maximum 500 modes per pattern, mode repeating of maximum 100,000 times The combination of the modes is described in the parenthesis (multiplex parenthesis supported, repeating of maximum 100,000 times) Maximum 1,000 steps per mode, maximum 500,000 steps per pattern
	Setting items for every step	Commands with tilt (operation side, absorption side, absorption side differential motion, other optional items) Gear shift position instruction Step transition condition (time, measurement data) Capable of AND/OR setting of two conditions Step monitor condition
Running resistance	Running resistance function	Setting method ABC input method, F input method, fill-scale projected area method
	Mechanical loss function (optional)	Correction of torque data by measuring the mechanical loss individually
Maintenance	Security function	Function limitation by security level (level: 0 to 4)
	Process data setting	Addition function of measurement items, filter addition (moving average, LPF) Target items: measurement items, devices (AD, DA, PI, DeviceNet), operation expression
	Measurement items name change function	Capable of changing names of measurement item arbitrarily
	Measurement items DA output function	Output arbitrary measurement items to a channel of the DA board
	Calibration function	Calibration of the AD board and the DA board
	DA output data filter function	Low pass filter process to the item for the DA output