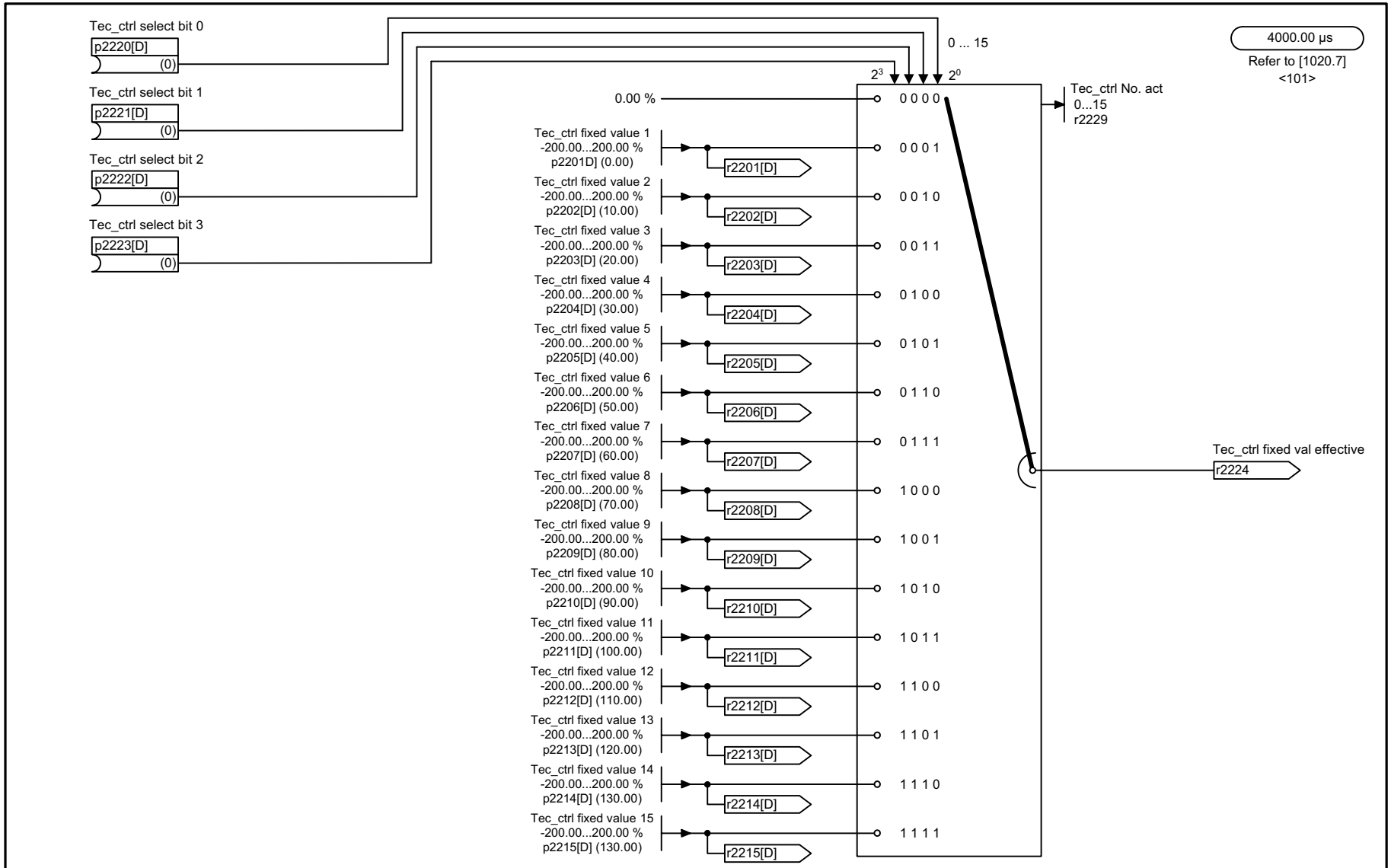
2.15 Technology controller

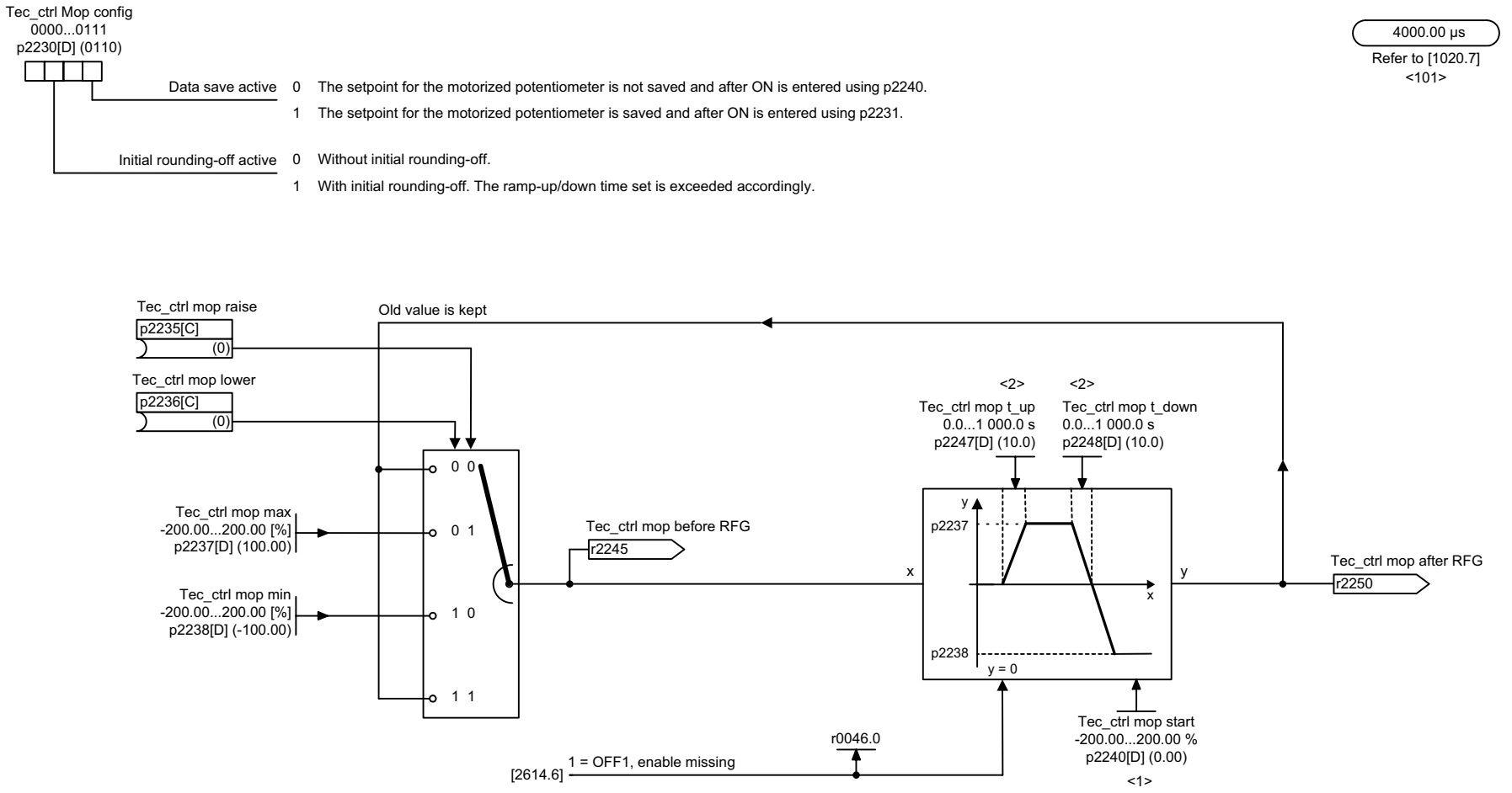
Function diagrams



<101> Pre-assignment of the sampling times in p0115, refer to p0112.

1	2	3	4	5	6	7	8
DO: SERVO, VECTOR					fp_S01_7950_en.vsd	Function diagram	- 7950 -
Technology controller - fixed values (r0108.16 = 1)					28.10.04 V02.02.00	SINAMICS S	

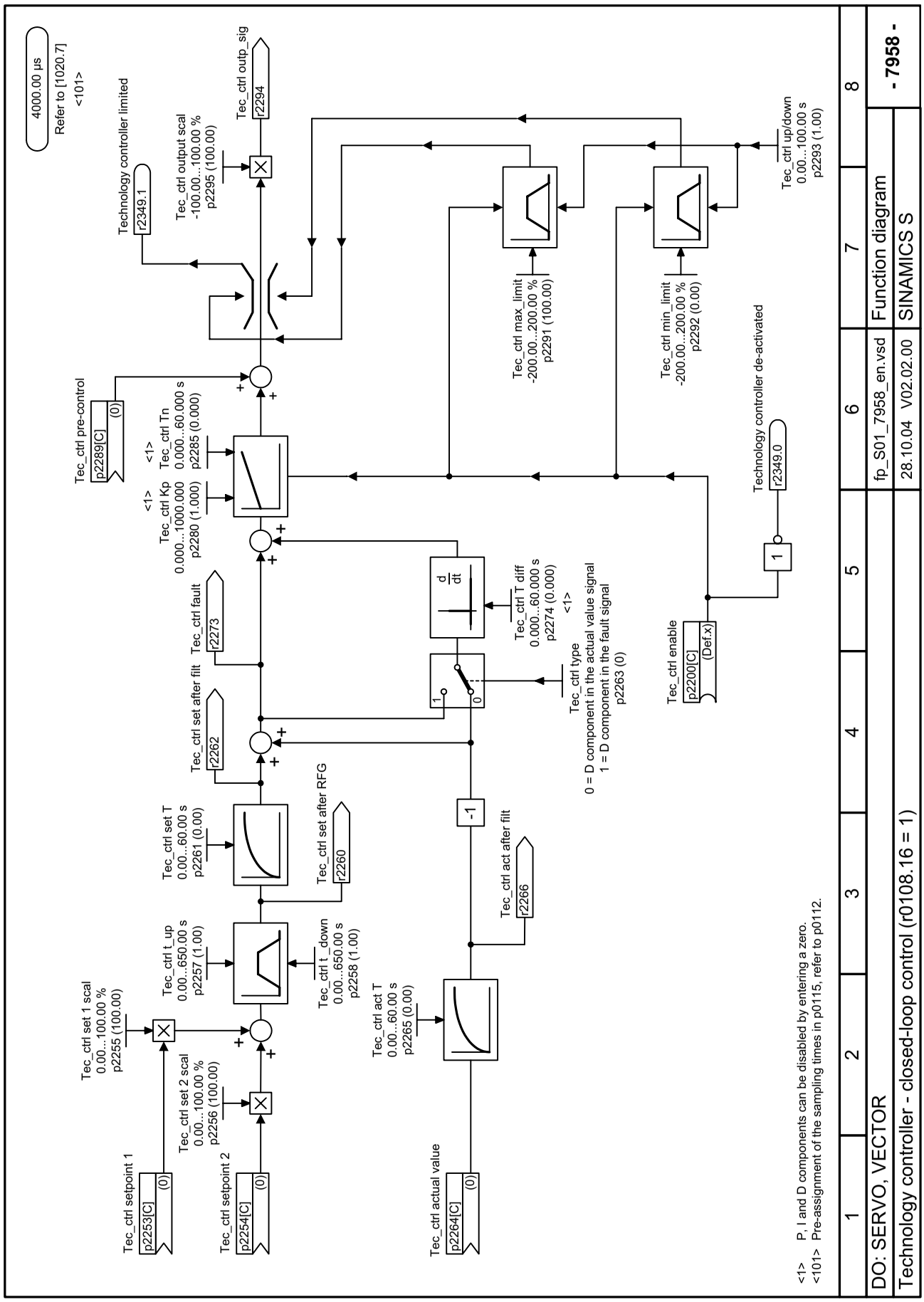
Picture 2-136 7950 – Fixed values (r0108.16 = 1)



<1> For p2230.0 = 0, this setpoint is entered after ON.
<2> If the initial rounding-off is active (p2230.2 = 1), the selected ramp-up and ramp-down times are appropriately exceeded.
<101> Pre-assignment of the sampling times in p0115, refer to p0112.

1	2	3	4	5	6	7	8
DO: SERVO, VECTOR					fp_S01_7954_en.vsd	Function diagram	- 7954 -
Technology controller - motorized potentiometer (r0108.16 = 1)					28.10.04 V02.02.00	SINAMICS S	

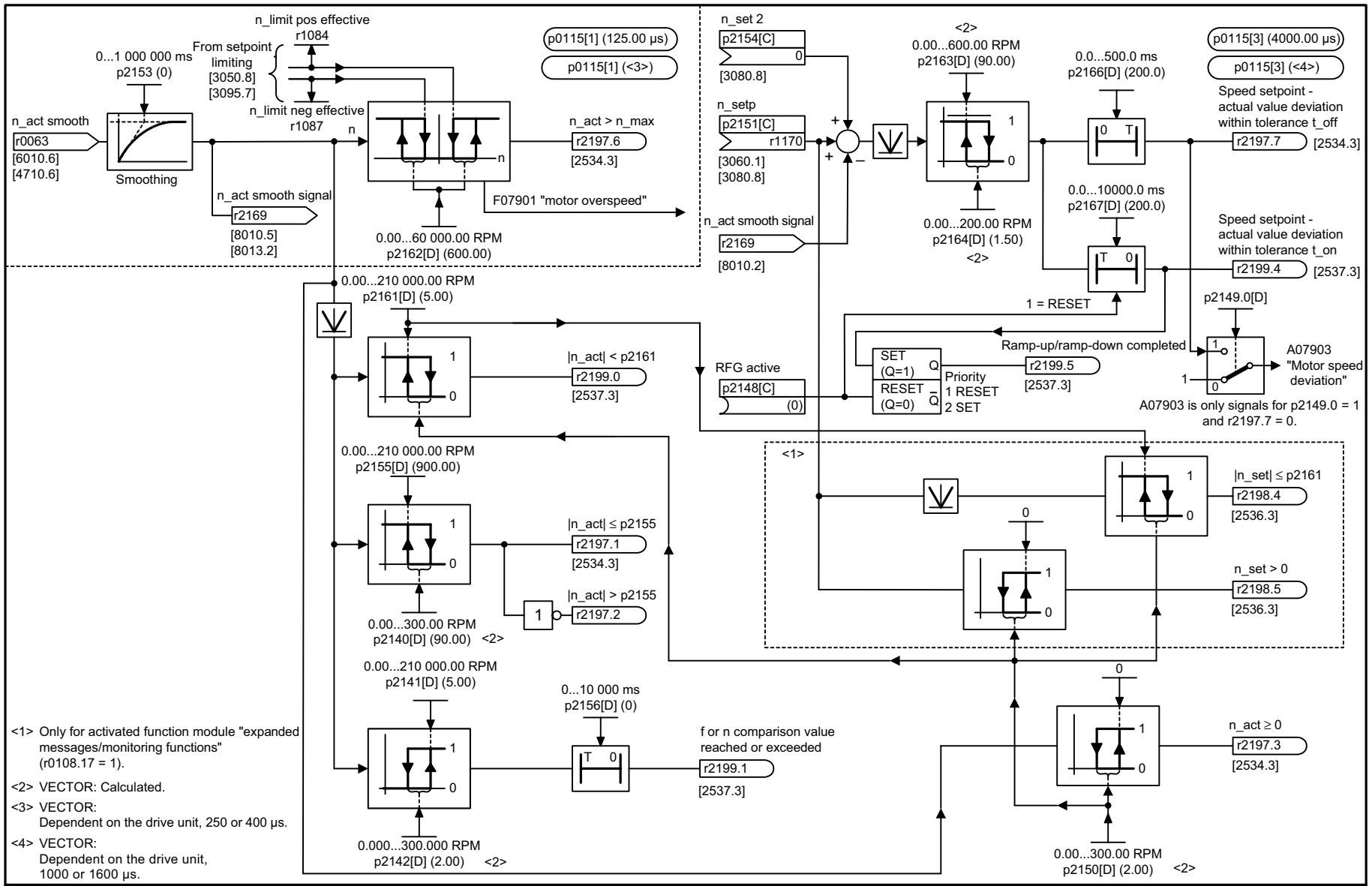
Picture 2-137 7954 – Motorized potentiometer (r0108.16 = 1)



Picture 2-138 7958 – Control (r0108.16 = 1)

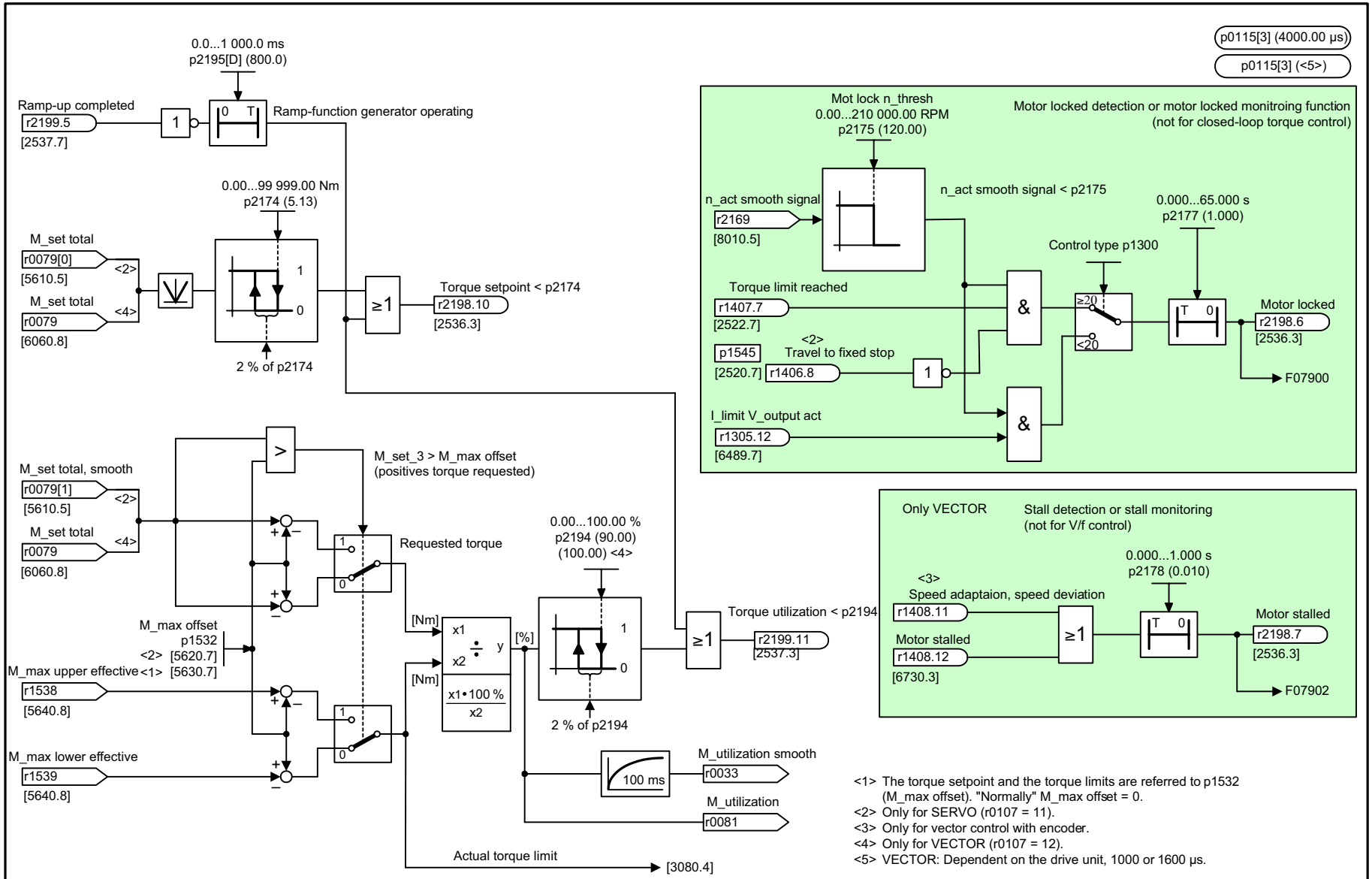
2.16 Signals and monitoring functions

Function diagrams



1	2	3	4	5	6	7	8
DO: SERVO, VECTOR					fp_S01_8010_en.vsd	Function diagram	- 8010 -
Messages and monitoring functions - speed messages/signals					07.10.04 V02.02.00	SINAMICS S	

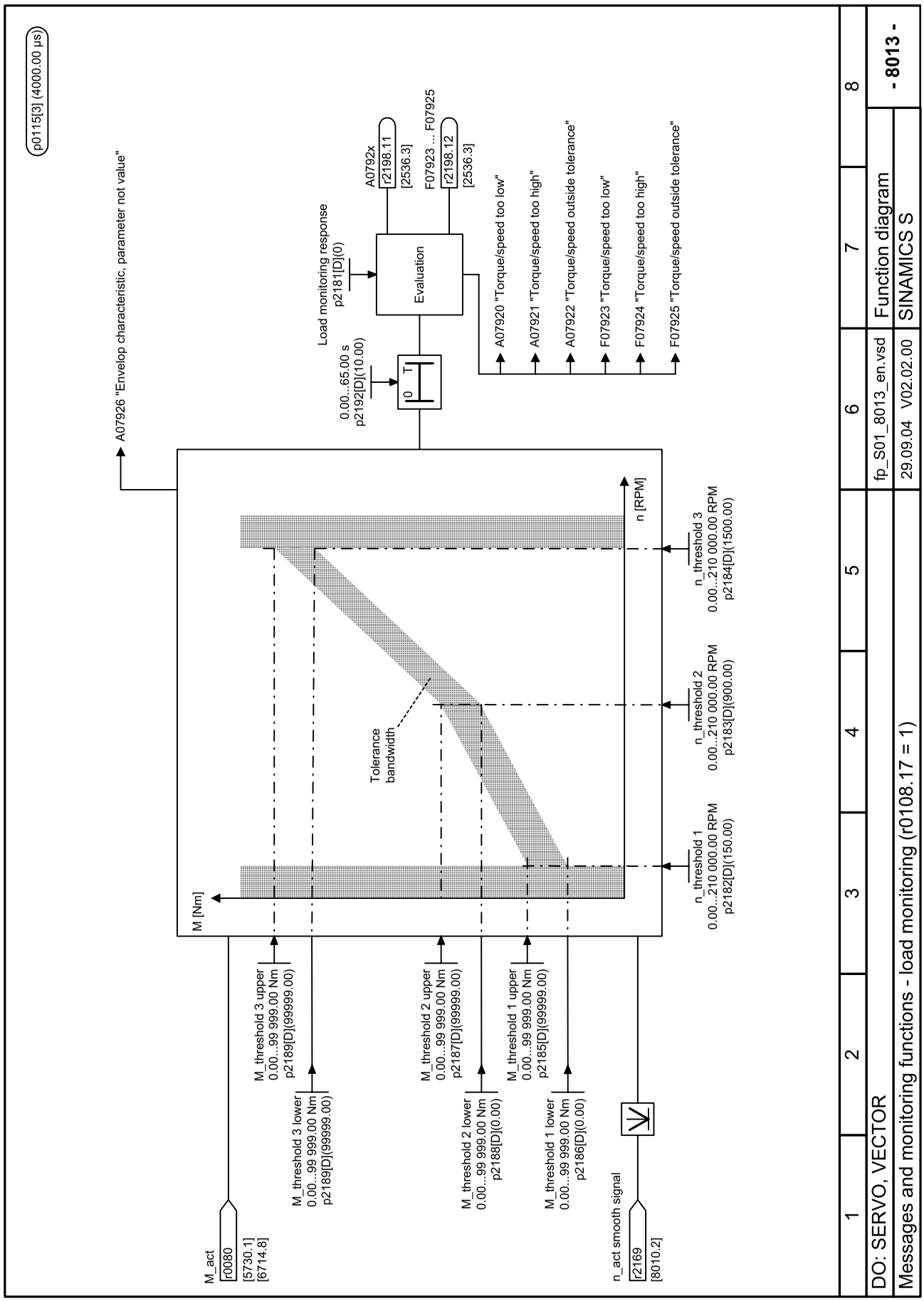
Picture 2-139 8010 – Speed messages



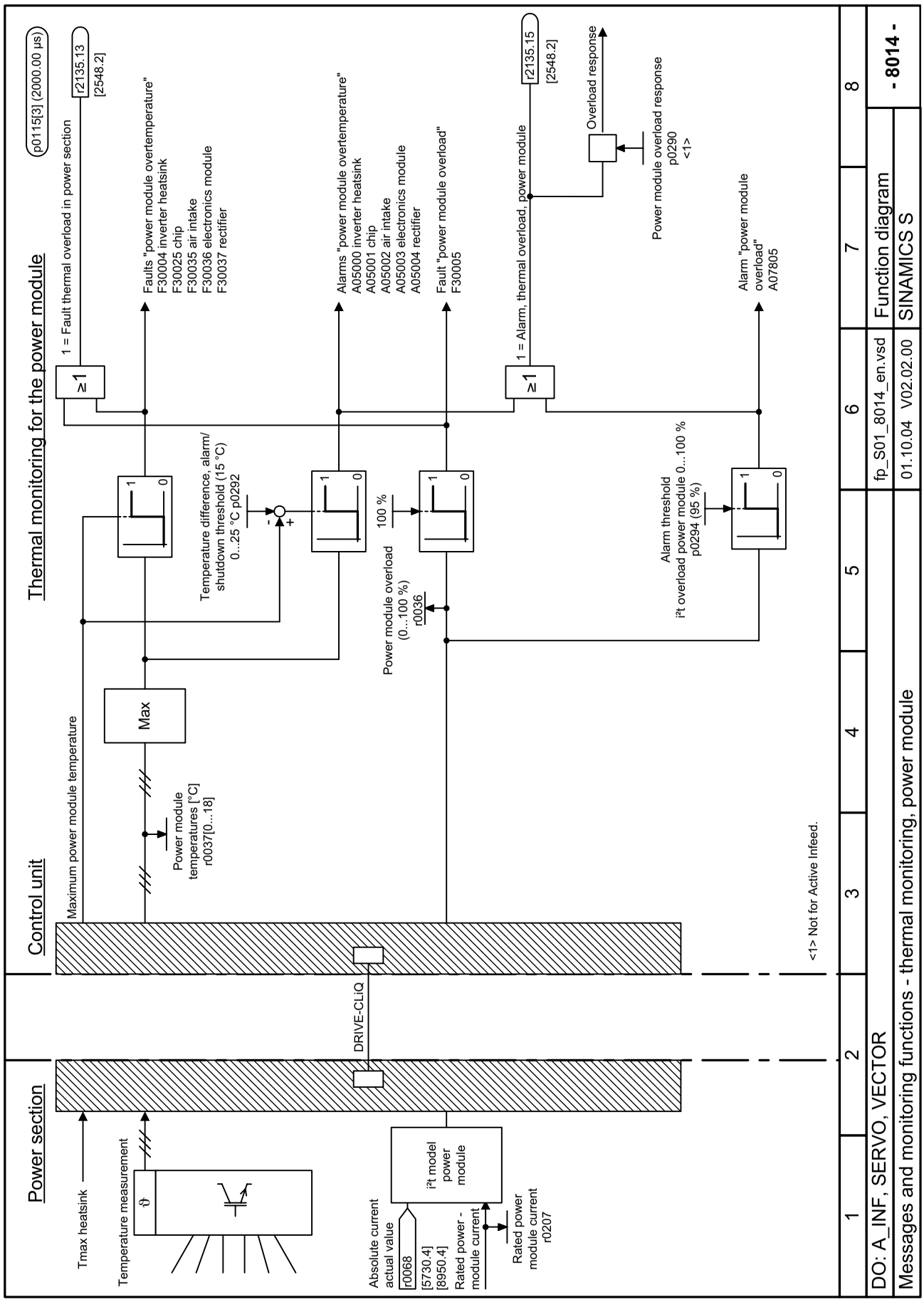
<1> The torque setpoint and the torque limits are referred to p1532 (M_max offset). "Normally" M_max offset = 0.
<2> Only for SERVO (r0107 = 11).
<3> Only for vector control with encoder.
<4> Only for VECTOR (r0107 = 12).
<5> VECTOR: Dependent on the drive unit, 1000 or 1600 µs.

1	2	3	4	5	6	7	8
DO: SERVO, VECTOR					fp_S01_8012_en.vsd	Function diagram	- 8012 -
Messages and monitoring functions- torque messages/signals, motor locked/stalled					19.10.04 V02.02.00	SINAMICS S	

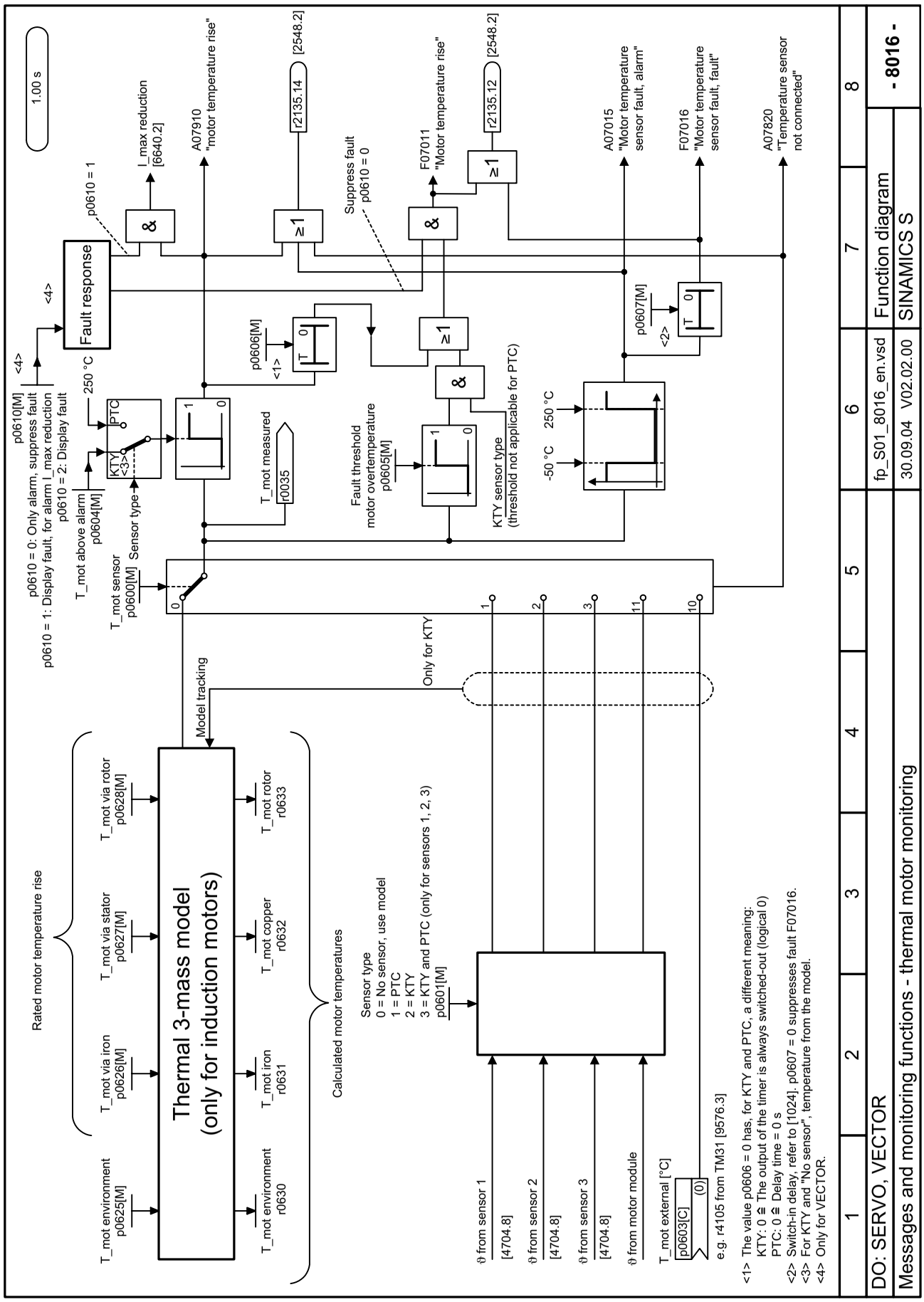
Picture 2-140 8012 – Torque messages/signals, motor locked/stalled



Picture 2-141 8013 – Load monitoring (r0108.17 = 1)



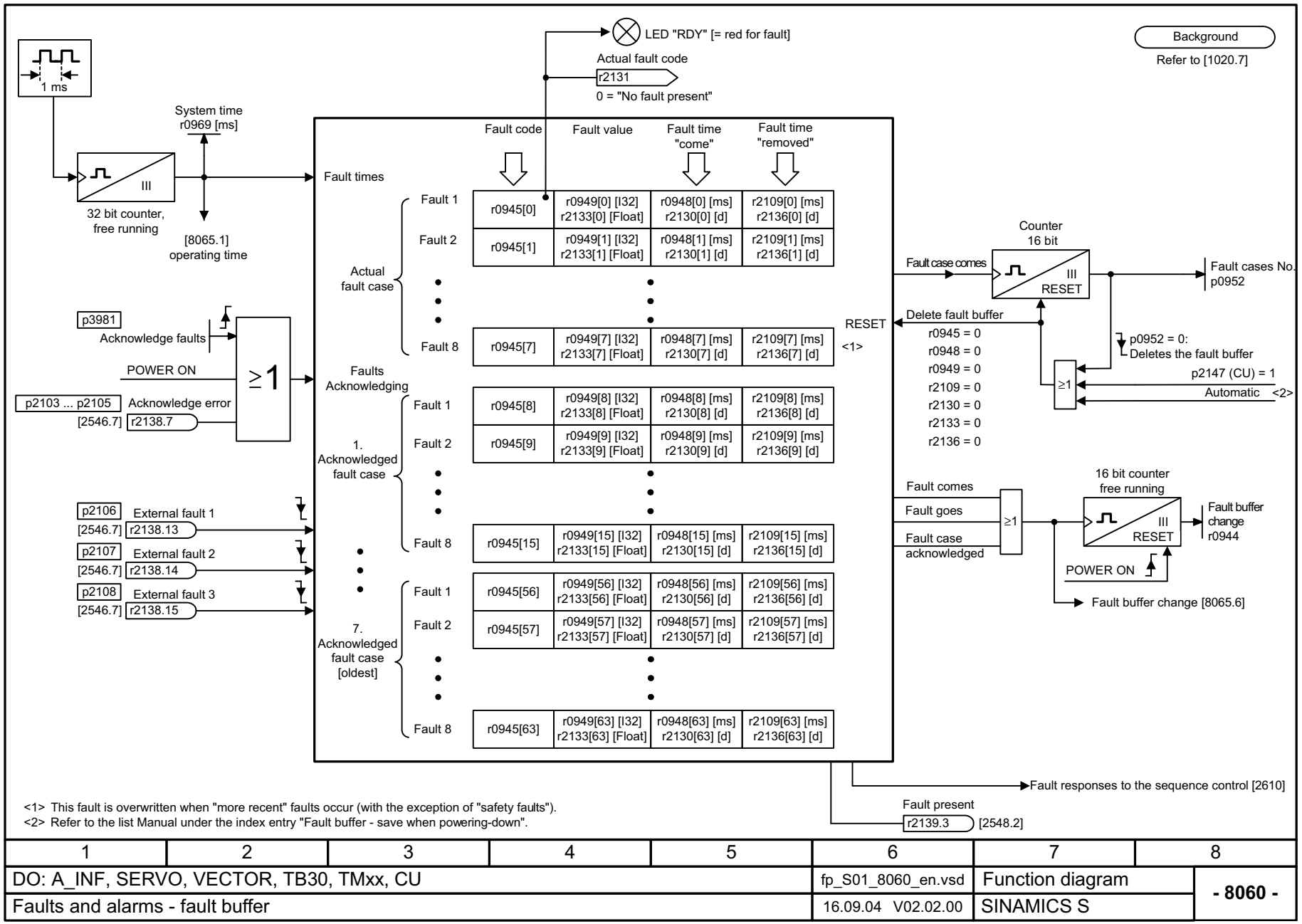
Picture 2-142 8014 – Thermal monitoring, power modulel



Picture 2-143 8016 – Thermal motor monitoring

2.17 Faults and alarms

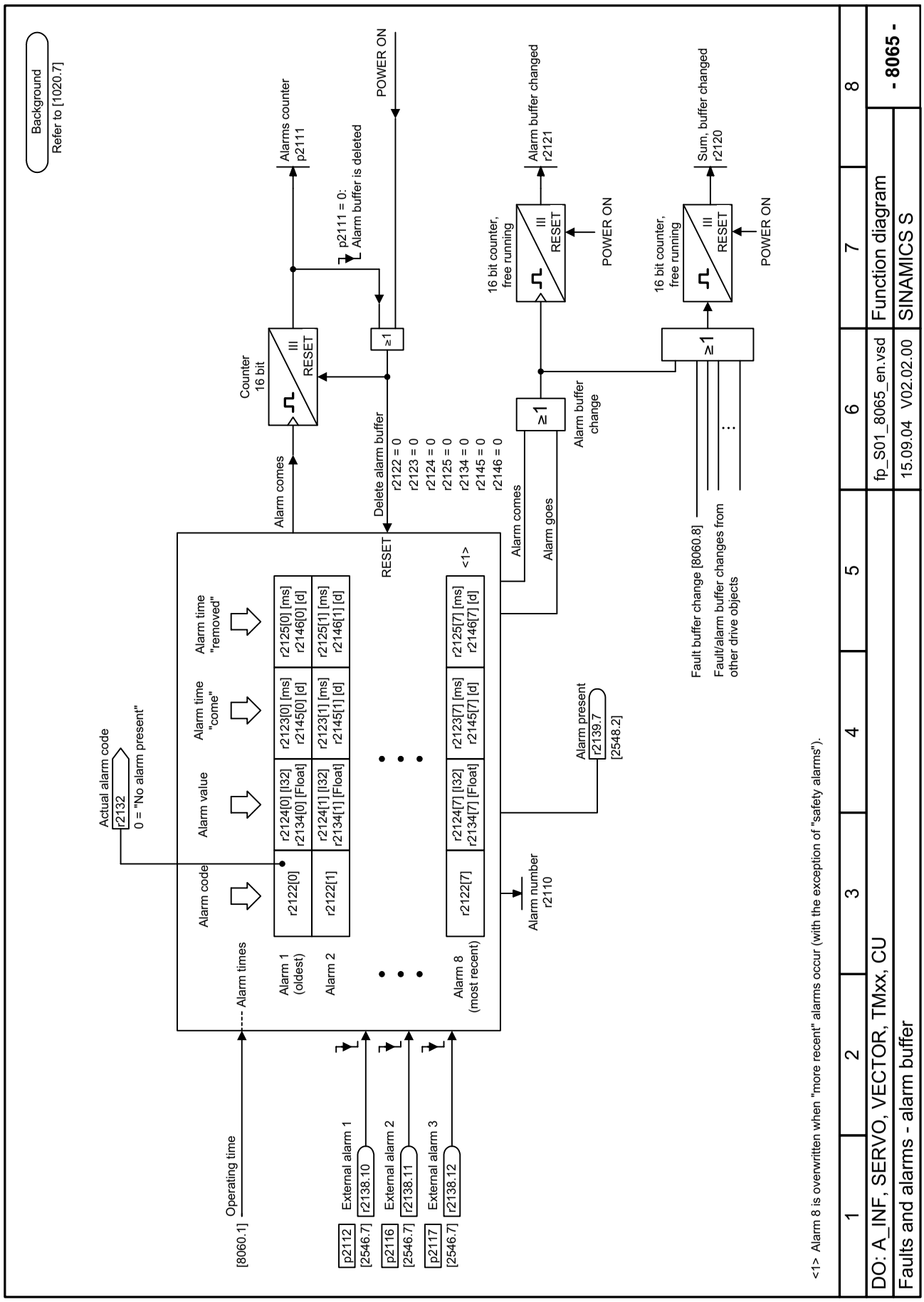
Function diagrams



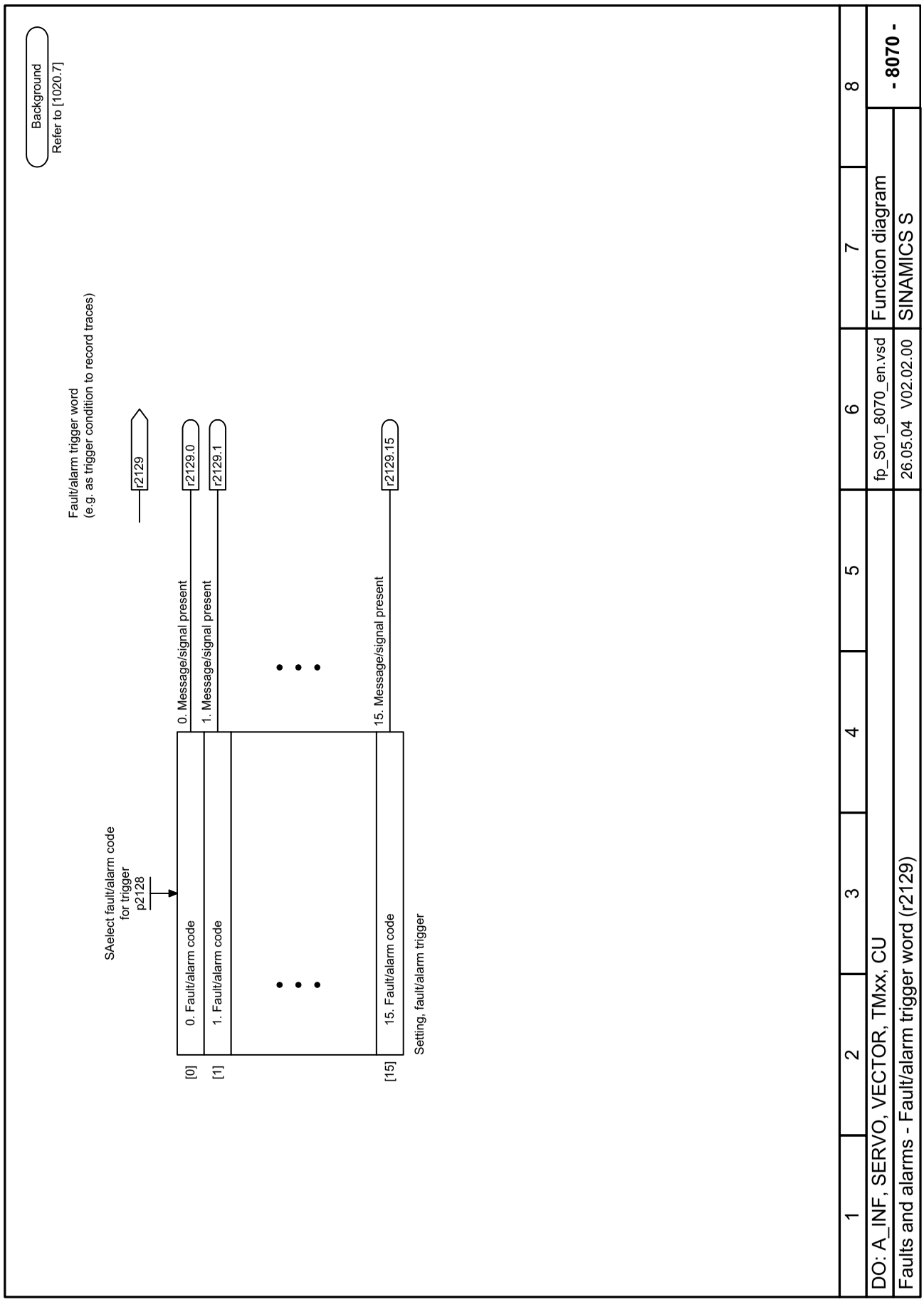
<1> This fault is overwritten when "more recent" faults occur (with the exception of "safety faults").
<2> Refer to the list Manual under the index entry "Fault buffer - save when powering-down".

1	2	3	4	5	6	7	8
DO: A_INF, SERVO, VECTOR, TB30, TMxx, CU					fp_S01_8060_en.vsd	Function diagram	- 8060 -
Faults and alarms - fault buffer					16.09.04 V02.02.00	SINAMICS S	

Picture 2-144 8060 – Fault buffer



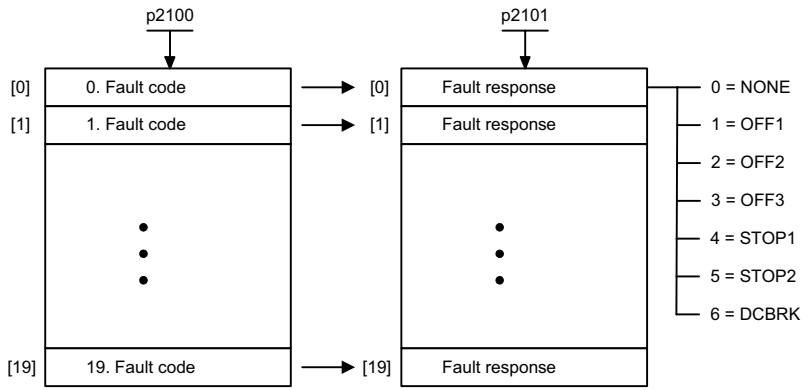
Picture 2-145 8065 – Alarm buffer



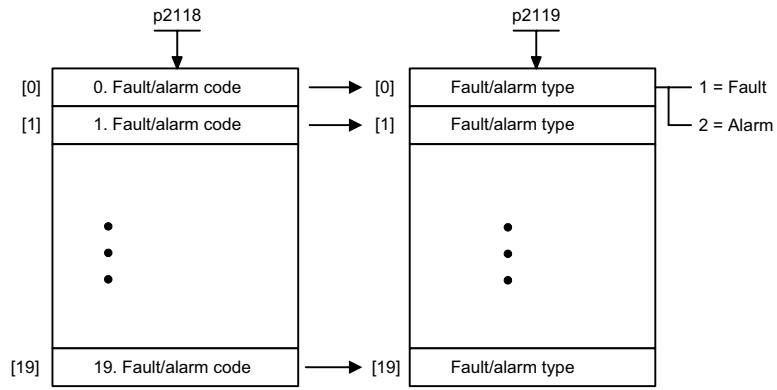
Picture 2-146 8070 – Fault/alarm trigger word (r2129)

Background
Refer to [1020.7]

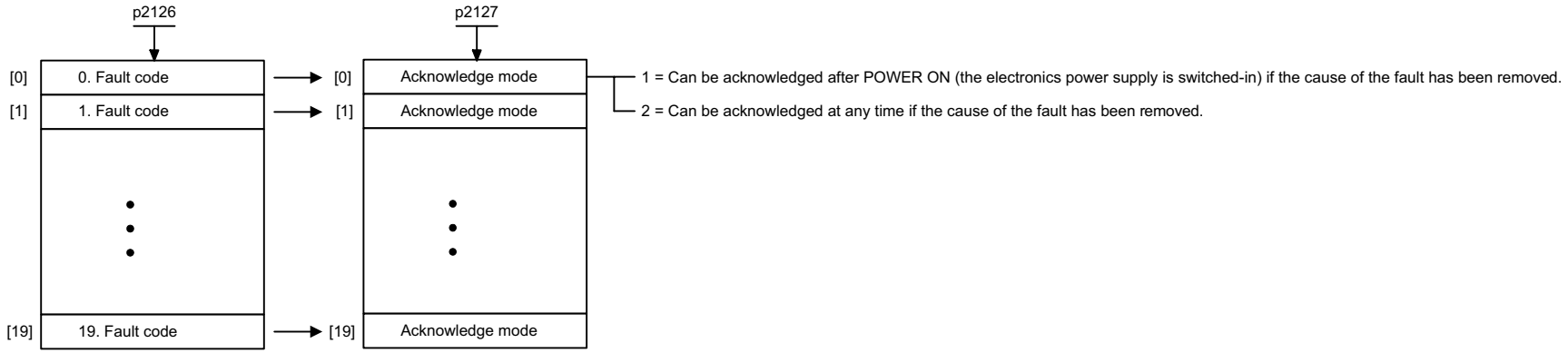
Changing the fault response for a maximum of 20 faults <1>



Changes the message type - fault <==> alarm for a maximum of 20 faults/alarms <1>



Changes the acknowledge mode for max. 20 faults <1>



<1> In the factory setting, fault responds, acknowledge mode and message type are practically and sensibly pre-assigned for all faults and alarms.
Possible changes can only be made in an individual value range that is specified by SIEMENS.
When the message type is changed, the supplementary information "moves" from fault value r0949 to alarm value r2124 and vice versa.

1	2	3	4	5	6	7	8
DO: A_INF, SERVO, VECTOR, TMxx, CU					fp_S01_8075_en.vsd	Function diagram	- 8075 -
Faults and alarms - fault/alarm configuration					02.08.04 V02.02.00	SINAMICS S	

Picture 2-147 8075 – Fault/alarm configuration