



SIPLUS S7-300 FM350-1 -25 ... + 60 DGR C ACCORDING
EN50155 BASED ON 6ES7350-1AH03-0AE0

Supply voltage

Auxiliary voltage 1L+, load voltage 2L+

Rated value (DC)	24 V
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Permissible range (ripple included)

dynamic, lower limit (DC)	18.5 V
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dynamic, upper limit (DC)	30.2 V
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static, lower limit (DC)	20.4 V
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static, upper limit (DC)	28.8 V
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non-periodic skip

Duration	500 ms
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Recovery time	50 s
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Value	35 V
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Input current

from load voltage 1L+ (without load), max.	40 mA
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from backplane bus 5 V DC, max.	160 mA
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Encoder supply

5 V encoder supply

5 V	Yes ; 5.2 V +/-2%
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Output current, max.	300 mA
24 V encoder supply	
24 V	Yes ; 1L+ (-3 V)
Output current, max.	400 mA
Power loss	
Power loss, typ.	4.5 W
Digital inputs	
Number of digital inputs	3
Functions	1 for gate start, 1 for gate stop, 1 for setting the counter
Input voltage	
for signal "1"	+11 to +28.8 V
Input current	
for signal "1", typ.	9 mA
Digital outputs	
Number of digital outputs	2
Short-circuit protection	Yes ; Clocked electronically
Limitation of inductive shutdown voltage to	2L+ (-39 V)
Output voltage	
for signal "0", max.	3 V
for signal "1", min.	2L+ (-1,5 V)
Output current	
for signal "1" rated value	0.5 A
for signal "1" permissible range for 0 to 60 °C, min.	5 mA
for signal "1" permissible range for 0 to 60 °C, max.	0.6 A
Output delay with resistive load	
"0" to "1", max.	300 µs
Encoder	
Connectable encoders	
Incremental encoder (symmetrical)	Yes ; With 2 pulse trains offset by 90°
Incremental encoder (asymmetrical)	Yes
24 V initiator	Yes
24 V directional element	Yes ; 1 pulse train, 1 direction level
Counter	
Number of counter inputs	1
Counting range, description	32 bit or +/-31 bit
Minimum pulse width, adjustable	Yes ; 2.5 or 25 µs
Counter input 5 V	
Type	RS 422

Terminating resistor	220 Ω
Differential input voltage	1,3 V
Counting frequency, max.	500 kHz
Counter input 24 V	
Input voltage, for signal "1"	+11 to +28.8 V
Input current, for signal "1", typ.	9 mA
Counting frequency, max.	200 kHz
Minimum pulse width	2.5 μ s
Parameter	
Remark	assigned binary addresses: 16 bytes
Galvanic isolation	
Galvanic isolation digital inputs	
between the channels and the backplane bus	Yes ; Optocoupler
Galvanic isolation digital outputs	
between the channels and the backplane bus	Yes ; Optocoupler
Galvanic isolation counter	
between the channels and the backplane bus	Yes ; Optocoupler
Permissible potential difference	
between different circuits	75 VDC / 60 VAC
Isolation	
Isolation tested with	500 V
Standards, approvals, certificates	
CE mark	Yes
KC approval	Yes
UL approval	Yes ; File E239877
RCM (former C-TICK)	Yes
FM approval	Yes ; CofC 3028431
EAC (former Gost-R)	Yes
Ambient conditions	
Operating temperature	
min.	-25 °C ; = Tmin
max.	60 °C ; = Tmax; the rated temperature range of -25 ... +55 °C (T1) applies for the use on railway vehicles according to EN50155
Extended ambient conditions	
Relative humidity	
with condensation, tested in accordance with IEC 60068-2-38, maximum	100 % ; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	

to biologically active substances/conformity with EN 60721-3-3	Yes ; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
to chemically active substances/conformity with EN 60721-3-3	Yes ; Class 3C4 (RH < 75%) incl. salt spray according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!
to mechanically active substances/conformity with EN 60721-3-3	Yes ; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!
Connection method	
required front connector	1x 20-pin
Dimensions	
Width	40 mm
Height	125 mm
Depth	120 mm
Weights	
Weight, approx.	250 g
Status	Jul 18, 2014