

Current Sensor HCMR 500A-S-40-SB5-CF

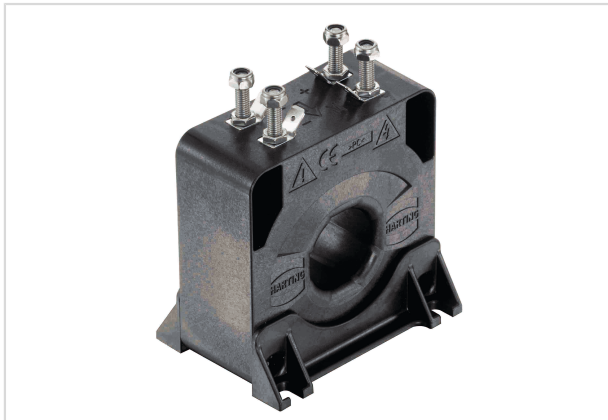


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Part number	20 31 050 8201
Specification	Current Sensor HCMR 500A-S-40-SB5-CF
HARTING eCatalogue	https://b2b.harting.com/20310508201

Identification

Category	Current measurement
Series	HCMR
Element	Current sensor
Sensor technology	Hall-Effekt Closed loop
Features	Hall effect compensated current sensor Measurable currents: AC, DC, pulsed, mixed ... High accuracy over the entire measuring range Galvanic insulation between primary and secondary current Internal screen between primary and secondary circuit Switchboard mounting Housing material and potting mass have a flammability rating UL 94 V-0 Applications: frequency converters, electrical drives, auxiliary converters

Version

Termination	4x screw lock with Faston (6.3 x 0.8 mm)
Field of application	Railway version
Pack contents	Connecting cable included

Technical characteristics

I_{PN} Nominal primary current	500 A
I_{PM} Primary current, measuring range	0 ... $\pm 1,200$ A
R_M Measuring resistance @ $I_{PM \max}$, $U_C \max$, $T_A \max$	1 ... 20 Ω For other primary currents see diagram.
I_{SN} Nominal secondary current	125 mA
K_N Turns ratio	1 : 4000



Technical characteristics

U _C Power supply	±15 ... ±24 V ±5 %
I _C Current consumption @ U _{C min}	20 mA + I _S
X Overall accuracy @ I _{PN} , T _A = 25 °C	±0.6 %
E _L Linearity	<0.1 %
I _O Offset current @ I _P = 0 A, T _A = 25 °C	±0.5 mA
I _{OT} maximum temperature drift of I _O	±0.8 mA
t _r Response time @ I _{PN}	<1 μs
di/dt with optimal coupling	>100 A/μs
f Frequency	0 ... 100 kHz
T _A Ambient temperature	-40 ... +85 °C
T _S Storage temperature	-45 ... +90 °C
R _S Secondary coil resistance @ T _{A max}	45 Ω
U _D Test voltage, effective (50 Hz, 1 min)	7 kV Primary - secondary 0.5 kV Secondary - screen
U _{St} Rated impulse voltage (1,2/50 μs)	20 kV
U _B Rated voltage	2,000 V
Overvoltage category	III
Pollution degree	2
L _S Clearance distance	41.6 mm
K _S Creepage distance	43.1 mm
Tightening torque	4 Nm (4x steel screw M5 - Vertical)

Material properties

Material (hood/housing)	Polycarbonate (PC)
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption
RoHS exemptions	6(a) / 6(a)-I: Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0,35 % lead by weight / Lead as an alloying element in steel for machining purposes containing up to 0,35 % lead by weight and in batch hot dip galvanised steel components containing up to 0,2 % lead by weight
ELV status	compliant with exemption



Material properties

China RoHS	50
REACH Annex XVII substances	Not contained
REACH ANNEX XIV substances	Not contained
REACH SVHC substances	Yes
REACH SVHC substances	Lead
California Proposition 65 substances	Yes
California Proposition 65 substances	Nickel Lead

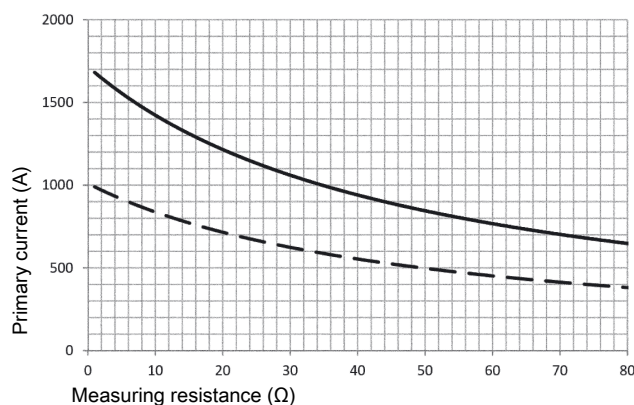
Specifications and approvals

Specifications	EN 50155 IEC 61373
Approvals	DNV GL
CE	Yes

Commercial data

Packaging size	1
Net weight	493.56 g
Country of origin	Germany
European customs tariff number	90303370
eCl@ss	27210902 Current transformer

Measuring resistance



— $U_C = \pm 24 \text{ V} - 5 \%$, $T_A = 85 \text{ °C}$

- - - $U_C = \pm 15 \text{ V} - 5 \%$, $T_A = 85 \text{ °C}$

Primary currents higher than I_{PM} only for peak!