Technical data

			HBO100	HBO200	HBO300	HBO400	HBO500	HBO600	HBO1000
Nominal primary current (I_{PN})		**Ar.m.s**	100	200	300	400	500	600	1000
Measuring range (I_P max)		**A peak**	±300	±600	±900	±1100	±1200	±1300	±1500
Output voltage (V_S) at $\pm I_{PN}$		**V**	±4	±4	±4	±4	±4	±4	±4
Supply voltage (Va)	±5%	**V dc**	±12 … ±15	±12 … ±15	±12 … ±15	±12 … ±15	±12 … ±15	±12 … ±15	±12 … ±15
Load resistance (R_L)		**kΩ**	> 1	> 1	> 1	> 1	> 1	> 1	> 1
Internal output resistance	±5%	**Ω**	12	12	12	12	12	12	12
Current consumption		**mA**	⩽ 25	⩽ 25	⩽ 25	⩽ 25	⩽ 25	⩽ 25	⩽ 25
Rated voltage[1]		**Vr.m.s**	500	500	500	500	500	500	500
Isolation resistance @ 500 Vdc		**MΩ**	> 500	> 500	> 500	> 500	> 500	> 500	> 500
AC accuracy[2] at I_{PN} (@50Hz)	@ +25°C, R_LL 10kΩ, ±15V	**%**	⩽ ±1	⩽ ±1	⩽ ±1	⩽ ±1	⩽ ±1	⩽ ±1	⩽ ±1
AC accuracy[2] at I_{PN} (@50Hz)	@ +25°C, R_L> 10kΩ, ±12 … ±15V	**%**	⩽ ±1.5	⩽ ±1.5	⩽ ±1.5	⩽ ±1.5	⩽ ±1.5	⩽ ±1.5	⩽ ±1.5
Output offset	@ +25°C, I_P=0, ±15V	**mV**	⩽ ±10	⩽ ±10	⩽ ±10	⩽ ±10	⩽ ±10	⩽ ±10	⩽ ±10
Output offset	@ +25°C, I_P=0, ±12 … ±15V	**mV**	⩽ ±15	⩽ ±15	⩽ ±15	⩽ ±15	⩽ ±15	⩽ ±15	⩽ ±15
Residual offset after an overload of 3 x I_{PN}	@ +25°C, I_P=0, ±15V	**mV**	⩽ ±10	⩽ ±10	⩽ ±10	⩽ ±10	⩽ ±10	⩽ ±10	⩽ ±10
Thermal drift of output offset	-25 … +85°C	**mV/°C**	⩽ ±1	⩽ ±1	⩽ ±1	⩽ ±1	⩽ ±1	⩽ ±1	⩽ ±1
Linearity[2]		**%**	⩽ 0.5	⩽ 0.5	⩽ 0.5	⩽ 0.5	⩽ 0.5	⩽ 0.5	⩽ 0.5
Thermal drift of gain	-25 … +85°C	**%/°C**	⩽ 0.05	⩽ 0.05	⩽ 0.05	⩽ 0.05	⩽ 0.05	⩽ 0.05	⩽ 0.05
Delay time		**µs**	⩽ 7	⩽ 7	⩽ 3	⩽ 3	⩽ 3	⩽ 3	⩽ 3
di/dt correctly followed		**A/µs**	⩽ 25	⩽ 25	⩽ 50	⩽ 50	⩽ 50	⩽ 50	⩽ 50
Bandwidth	-3dB	**kHz**	0 … 25	0 … 25	0 … 50	0 … 50	0 … 50	0 … 50	0 … 50
Dielectric strength Primary/Secondary	50 Hz, 1 min	**kVr.m.s**	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Mass		**kg**	0.200	0.200	0.200	0.200	0.200	0.200	0.200
Operating temperature		**°C**	-25 …+85	-25 …+85	-25 …+85	-25 …+85	-25 …+85	-25 …+85	-25 …+85
Storage temperature		**°C**	-40 … +85	-40 … +85	-40 … +85	-40 … +85	-40 … +85	-40 … +85	-40 … +85

[1] OV3, PD2

[2] Excludes the electrical offset

Conformity

EN50178

As part of its on-going product improvement, ABB reserves the right to modify the characteristics of the products described in this document. The information given is not - contractual. For further details please contact the ABB company marketing these products in your country.

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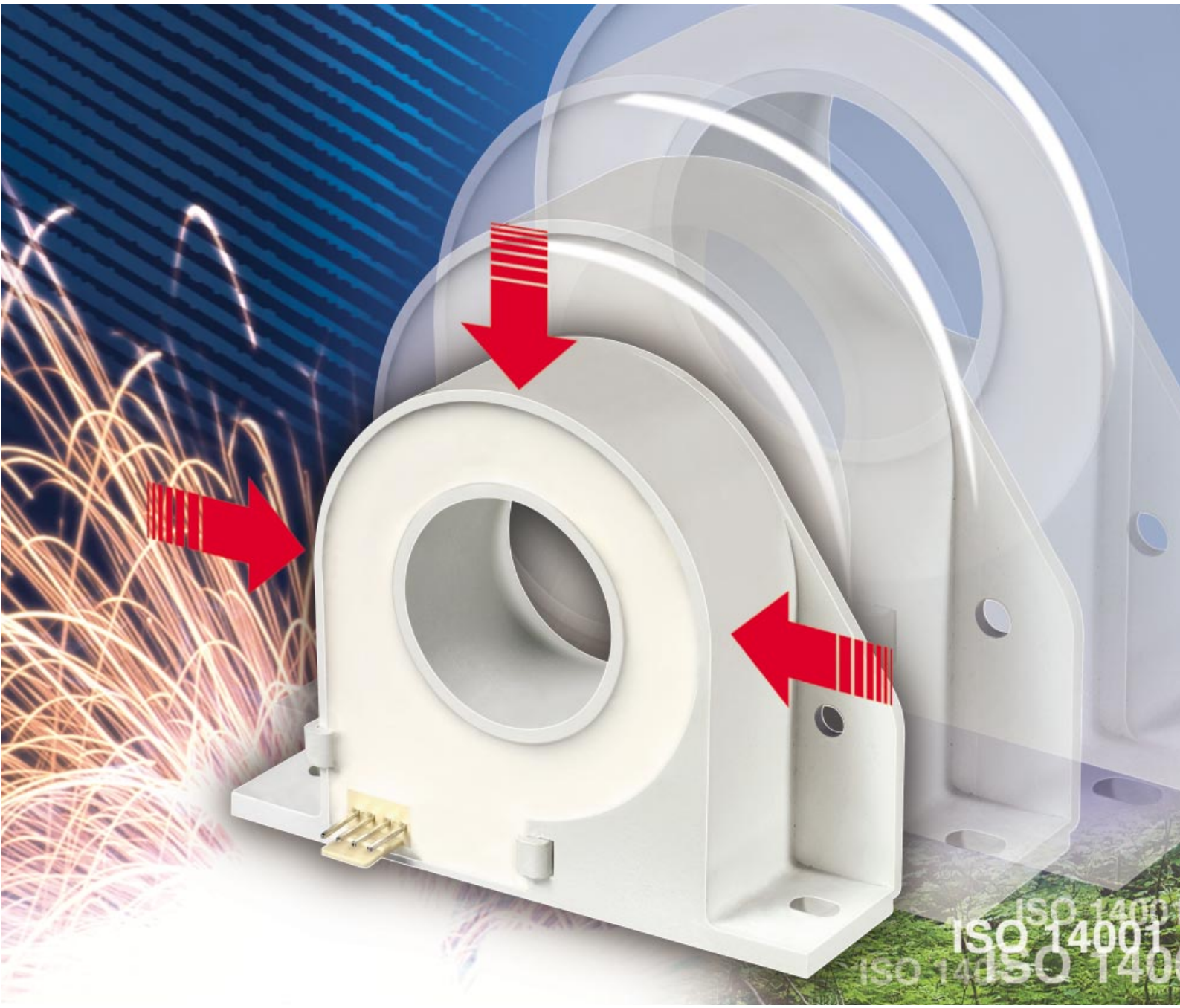
Current sensors
HBO range



Engineering

ABB current sensor

Current sensors are fundamental measuring components that generate a signal in proportion to the current to be measured. This very accurate signal is transmitted to the equipment and is the essential information needed to ensure optimal system control as well as protection of equipment and staff. Sensor quality is therefore crucial and ABB make every effort to ensure it is achieved.

A standard for other manufacturers – ABB stand out from the field

Pushing back their own technical barriers, ABB now offer the Open Loop reference. Their expertise and experience in the current sensor field enable them to achieve performances that leave their competitors at the starting-line.

By incorporating optimised Open Loop technology in the design of this new range, ABB make series production simpler and easier: greater assembling flexibility, improved efficiency, broader range of measurement, etc. All the advantages of the HBO range are found in welds, UPSs, drives, etc.

LASER-TR

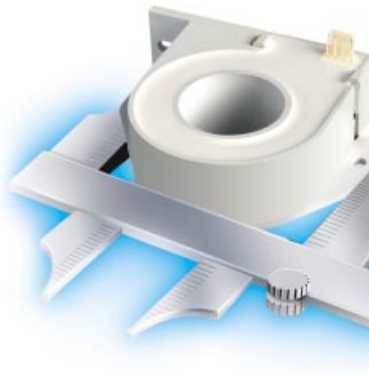
the Excellence

A precise response to customer expectations

Hall Open Loop technology makes it possible to meet all requirements related to cost rationalisation. In addition, by adapting to the requirements of technically less demanding applications, ABB ensure every customer gets the most competitive price.

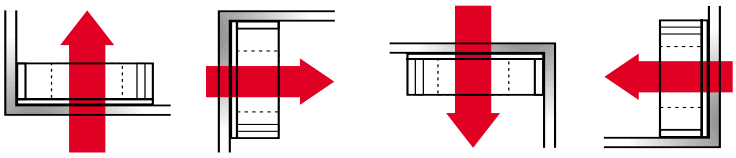
A single size for every rating

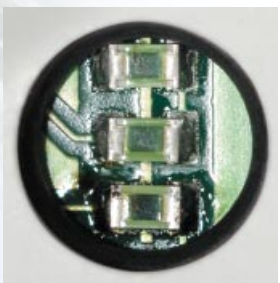
With a single size for every rating (from 100 A to 1,000 A), HBO current sensors give you the possibility of increasing equipment standardisation.



Vertical or horizontal

Assemblers can choose 2 ways of fastening ABB sensors: horizontally or vertically.





Laser trimming

Optimised production lines have enabled the technology used to produce HBO current sensors to be fully automated. Laser trimming in the factory obviates the possibility of any misadjustment.

RIMMED SENSORS; AUTOMATED PRODUCTION