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## MANUFACTURER DECLARATION Danfoss A/S

declares under our sole responsibility that BCP pressure controls may be used within the safety loop control according to thy below indicated characteristic values:

Type	BCP6H BCP7H	BCP1H BCP2H BCP3H BCP4H BCP5H	BCP2L BCP3L BCP4L BCP5L BCP6L	BCP6 BCP7	BCP01 BCP1 BCP2 BCP3 BCP4 BCP5	BCP01 BCP1 BCP2 BCP3 BCP4 BCP5
Operation Mode	High pressure limiter	High pressure limiter	Low pressure limiter	High pressure controller	High pressure controller	Low pressure controller
Reset function	Manual	Manual	Manual	Auto	Auto	Auto
Fail Safe Dctected ( $\lambda$ SD)	0	0	0	0	0	0
Fail Safe Undetected ( $\lambda$ SD) according to IEC 61508:2010	191	153	172	191	185	154
Fail Dangerous Detected ( $\lambda$ DD)	0	0	0	0	0	0
Fail Dangerous Unetected ( $\lambda$ DU)	58	96	78	59	81	100
Total Failure Rate ( $\lambda$ ) according to IEC 61508:2010 [FIT]	249	249	250	250	266	254
Safe Failure Fraction (SFF) according to IEC 61508:2010 [%]	76	61	68	76	69	60
SIL AC according to IEC 61508:2010	SIL 2	SIL 2	SIL 2	SIL 2	SIL 2	SIL 2
<b>Safety metrics according to ISO 13849-1</b>						
MTTFd [year]:	1955	1191	1471	1539	1417	1137
DC [%]	0	0	0	0	0	0
Category (CAT)	CAT 1	CAT 1	CAT 1	CAT 1	CAT 1	CAT 1
Performance Level required (PLr)	c	c	c	c	c	c
Performance Level calculated(PLc) [1/h]	8,54E-08	9,59E-08	7,76E-08	5,89E-08	8,06E-08	1,00E-07

On the basis of EXIDA report no.: 10/01-052 R002

Date 2014-01-15	Issued by  Piotr Chylaszek Engineering Manager	Date 2014-01-15	Approved by  Sławomir Kozubowski R&D and Engineering Manager
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