

Declaration of Compliance



TUV IT 24 MAC 445 Rev.1

Manufacturer

Name	STEM S.r.l.
Address	Via della Meccanica, 2
ZIP Code	27010
City	Cura Carpignano (PV)
Country	Italy

Object

Typology	Safety component
Designation	Magnetic sensors
	<u>Magnetic coded sensors:</u>
	- Series N1xx
	- Series N2xx
	- Series N3xx
Model/type	- Series N51x
	- Series N52x
	- Series N55x
	<u>Magnetic non-coded sensors:</u>
	- Non-coded series
	<input type="checkbox"/> Single sample <input checked="" type="checkbox"/> Group of samples
Serial number	//
Year	2025

Legislative Reference

2006/42/EC - Annex I and Annex II part 1A

Applicable Standard

A Type Standard	
//	
B Type Standard	
EN ISO 13849-1:2023	EN ISO 13849-2:2012
EN ISO 14119:2025	EN 60947-5-3:2013
C Type Standard	
//	

Reference to the Technical Report

RevTRoC-MAC-722385984

The product is not referred to Annex IV of the Directive 2006/42/EC

Issue date: 21/07/2025

Expiry date: 28/05/2027



Industrie Service Division Manager

Alberto Carelli
Signature

First issue date: 29/05/2024

Expiration date of the last certification cycle: N.A.

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Doc. Ref.:	Directive 2006/42/EC	

Technical data

Refer to each family manual.







Reliability data

B10d 20.000.000 cycles

Family list








Note: the tables in the certificate are to be considered indicative (not exhaustive).

N1xx

Tabella opzioni di accoppiamento <sensori - magneti - centraline> Options table <sensor - magnet - safety unit> pairing							
Forma	Sensore	Schema del circuito**	Funzione di commutaz.	Magnete di attivazione	Distanza di attivazione Sao [mm]*	Distanza di disattivazione Sar[mm]*	Centraline di sicurezza abbinata
Shape	Sensor	Circuit Diagram**	Switching element function	Activation Magnet	Activation Distance Sao [mm]*	Deactivation Distance Sar[mm]*	Combined safety control units
	N180 RB		3 N.O.	M110 M11A	< 7	> 20	NC12, NC12 01
	N190 FB		N.O.	M110 M11A	< 7	> 20	NC12, NC12 01
	N180 FB		3 N.O.	M110 M11A	< 7	> 20	NC11, NC11 01
	N180 HA		2 N.O.	M110 M11A	< 7	> 13	NC85, NC86, NC96, NC97, NC97 01
	N185 GB N186 GB		N.O.+ N.C.	M110 M11A	< 7	> 24	NC20, NC21, NC62, NC66, NC98, NC98 01

* **Diagramma delle connessioni** le configurazioni dei contatti illustrate si riferiscono ad attuatore lontano: distanza > Sar. I colori dei cavi giallo-verde possono essere sostituite da blu-nero
***Connection diagram** the illustrated contacts configurations refer to actuator far away: distance > Sar
The colour green-yellow can be replaced by blue-black

N2xx

Tabella opzioni di accoppiamento sensori - magneti-centraline Options table sensor-magnet-control unit pairing							
Forma	Sensore	Schema del circuito*	Funzione di commutaz.	Magnete di attivazione	Distanza di attivazione Sao [mm]*	Distanza di disattivazione Sar[mm]*	Centraline di sicurezza abbinata
Shape	Sensor	Circuit Diagram*	Switching element function	Activation Magnet	Activation Distance Sao [mm]*	Deactivation Distance Sar[mm]*	Combined safety control units
	N250 RB		3 N.O.	M110 M11A	< 7	> 19	NC12, NC12 01
	N260 FB		N.O.	M110 M11A	< 7	> 19	
	N250 FB		3 N.O.	M110 M11A	< 7	> 19	NC11, NC11 01
	N270 HA		2 N.O.	M110 M11A	< 7	> 16	NC85, NC86, NC96, NC97, NC97 01
	N270 HL		2 N.O.	M110 M11A	< 7	> 16	
	N255 GA N256 GA		N.O.+ N.C.	M110 M11A	< 6	> 14	NC20, NC21, NC62, NC66, NC98, NC98 01

* **Diagramma delle connessioni** (le configurazioni dei contatti illustrate si riferiscono ad attuatore lontano: distanza > Sar. I colori dei cavi giallo verde possono essere sostituite da blu nero
***Connection diagram** the illustrated contacts configurations refer to actuator far away: distance > Sar
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N3xx

Tabella opzioni di accoppiamento <sensori - magneti - centraline> Options table <sensor - magnet - safety unit> pairing							
Forma	Sensore	Schema del circuito*	Funzione di commutaz.	Magnete di attivazione	Distanza di attivazione Sao [mm]*	Distanza di disattivazione Sar[mm]*	Centraline di sicurezza abbinata
Shape	Sensor	Circuit Diagram*	Switching element function	Activation Magnet	Activation Distance Sao [mm]*	Deactivation Distance Sar[mm]*	Combined safety control units
	N300 RB		3 N.O.	M113 M11A	< 7	> 19	NC12, NC12 01
	N310 FB		N.O.	M113 M11A	< 7	> 19	NC12, NC12 01
	N300 FB		3 N.O.	M113 M11A M117 01	< 7	> 19	NC11, NC11 01
	N300 HA		2 N.O.	M113 M11A M11701	< 7	> 14	NC85, NC86, NC96, NC97, NC97 01
	N300 FH		2 N.O.	M113 M11A M11701	< 7	> 14	
	N300 HF						
	N305 GA N306 GA		N.O.+ N.C.	M113 M11A M117	< 6	> 14	NC20, NC21, NC62, NC66, NC98, NC98 01

* **Diagramma delle connessioni** (le configurazioni dei contatti illustrate si riferiscono ad attuatore lontano: distanza > Sar
 I colori dei cavi giallo verde possono essere sostituite da blu nero

***Connection diagram** the illustrated contacts configurations refer to actuator far away: distance > Sar
 The colour green yellow can be replaced by blue black

N51x

Tabella opzioni di accoppiamento <sensori CODIFICATI - magneti - centraline> Options table <sensor CODED- magnet - safety unit> pairing							
Forma	Sensore	Schema del circuito*	Funzione di commutaz.	Magnete di attivazione	Distanza di attivazione Sao [mm]*	Distanza di disattivazione Sar[mm]*	Centraline di sicurezza abbinata
Shape	Sensor	Circuit Diagram*	Switching element function	Activation Magnet	Activation Distance Sao [mm]*	Deactivation Distance Sar[mm]*	Combined safety control units
	N510 RC N512 RC N510 RD N512 RD		3 N.O.	M140 M148	< 6 < 18	> 17 > 34	NC12, NC12 01
	N512 PR		3 N.O.	M146	< 9	> 22	
	N511 FC N513 FC N511 FD N513 FD		N.O.	M140 M148	< 6 < 18	> 16 > 30	
	N511 LC N511 LD		N.O.	M140 M148	< 6 < 18	> 14 > 30	
	N510 FC N512 FC N510 FD N512 FD		3 N.O.	M140 M148	< 6 < 18	> 16 > 30	NC11, NC11 01
	N510 LC N510 LD		3 N.O.	M140 M148	< 6 < 18	> 16 > 30	
	N517 HB N517 HC		2 N.O.	M140 M148	< 6 < 18	> 14 > 30	NC85, NC86, NC96, NC97, NC97 01
	N517 HF		2 N.O.	M146	< 9	> 22	
	N517 HB xxxxLD		3 N.O.	M146	< 9	> 18	
	N517 HP N516 HP		3 N.O.	M146	< 9	> 18	
	N517GL		2 N.O.+N.C.	M144	< 6	> 13	NC20, NC21, NC62, NC66, NC98, NC98 01
	N514 GC N515 GC		N.O.+ N.C.	M144	< 6	> 13	
	N514 GL		N.O.+ N.C.	M144	< 6	> 13	

* **Diagramma delle connessioni** le configurazioni dei contatti illustrate si riferiscono ad attuatore lontano: distanza > Sar I colori dei cavi giallo-verde possono essere sostituite da blu-nero
 ***Connection diagram** the illustrated contacts configurations refer to actuator far away: distance > Sar
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N52x

Tabella opzioni di accoppiamento <sensori - magneti - centraline> Options table <sensor - magnet - safety unit> pairing								
Forma	Sensore	Schema del circuito*	Funzione di commutaz.	Magnete di attivazione	Distanza di attivazione Sao [mm]*	Distanza di disattivazione Sar[mm]	Centraline di sicurezza abbinata	
Shape	Sensor	Circuit Diagram*	Switching element function	Activation Magnet	Activation Distance Sao [mm]*	Deactivation Distance Sar[mm]	Combined safety control units	
	N520 RE		3 N.O.	M125	< 6	> 18	NC12, NC12 01	
	N525 FE N526 FE		N.O.	M125	< 6	> 19		NC11, NC11 01
	N525 LE							
	N520 FE		3 N.O.					
	N520 LE							
	N520 HD		2 N.O.	M125	< 6	> 19	NC85, NC86, NC96, NC97, NC97 01	
	N520 HF		2 N.O.	M125	< 6	> 19		
	N520 FH		2 N.O.	M125	< 6	> 19		
	N520 HF xxxxxxx LD		2 N.O.	M125	< 6	> 19		
	N520 HF xxxxxxx SL		2 N.O. + SIG	M125	< 6	> 18		
N520 GD		N.O. + N.C.	M120	< 3	> 11	NC20, NC21, NC62, NC66, NC98, NC98 01		
N520 GL		N.O. + N.C.	M120	< 3	> 11			

* **Diagramma delle connessioni** le configurazioni dei contatti illustrate si riferiscono ad attuatore lontano: distanza > Sar I colori dei cavi giallo-verde possono essere sostituiti da blu-nero
 ***Connection diagram** the illustrated contacts configurations refer to actuator far away: distance > Sar The colour green yellow can be replaced by blue-black

N55x

Forma	Sensore	Schema del circuito*	Tipo contatto	Magnete di attivazione	Distanza di attivazione Sao [mm]*	Distanza di disattivazione Sar[mm]*	Centraline di sicurezza abbinata
Shape	Sensor	Circuit Diagram*	Switch Type	Activation Magnet	Activation Distance Sao [mm]*	Deactivation Distance Sar[mm]*	Combined safety control units
	N55x HD N55x HE		2 N.O.	M15x	> 2 *** < 6	> 22	NC85, NC86, NC96, NC97, NC9701
	N55x FP N55x FH N55x HF		2 N.O.	M15x	> 2 *** < 6	> 22	
	N55x FE		1 N.O.	M15x	> 2 *** < 6	> 18	NC12, NC12 01
	N55x RE		3 N.O.	M15x	> 2 *** < 6	> 18	
	N55x FE		3 N.O.	M15x	> 2 *** < 6	> 18	NC11, NC11 01

* **Diagramma delle connessioni**: le configurazioni dei contatti illustrate si riferiscono ad attuatore lontano: distanza > Sar I colori dei cavi giallo-verde possono essere sostituiti da blu-nero
 ***Connection diagram** the illustrated contacts configurations refer to actuator far away: distance > Sar The colour green-yellow can be replaced by blue-black

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Non-coded sensors

Tabella opzioni di accoppiamento /Options table <sensori NON CODIFICATI - magneti - centraline> <sensor - not coded magnet - safety unit> pairing				
Forma	Sensore	Schema del circuito*	Funzione di commutaz.	Centraline di sicurezza abbinata
Shape	Sensor	Circuit Diagram*	Switching element function	Combined safety control units
M10	D10P 3Q		3 N.O.	NC11, NC1101 NC12, NC12 01
M12	D12P 3Q		3 N.O.	
M18	D18P 3Q		3 N.O.	
	E400 3Q		3 N.O.	
M8	A081 2M D08P 2M		N.O.+ N.C.	NC20, NC21, NC62, NC66, NC98, NC98 01
M10	D10P 2M		N.O.+ N.C.	
M12	D12P 2M		N.O.+ N.C.	
M18	D18P 2M		N.O.+ N.C.	
	E400 2M		N.O.+ N.C.	
	E510 2M E520 2M		N.O.+ N.C.	
	E550 2M		N.O.+ N.C.	
M10	D104 2M		N.O.+ N.C.	
M12	D121 2M		N.O.+ N.C.	NC85, NC86, NC96, NC97, NC97 01
M8	A081 2L D08P 2L		N.O.+ N.O.	
M10	D10P 2L		N.O.+ N.O.	
M12	D12P 2L		N.O.+ N.O.	
M18	D18P 2L		N.O.+ N.O.	
	E400 2L		N.O.+ N.O.	
	E510 2L E520 2L		N.O.+ N.O.	
	E550 2L		N.O.+ N.O.	
M10	D104 2L		N.O.+ N.O.	
M12	D121 2L		N.O.+ N.O.	

***Schema delle connessioni:** le configurazioni dei contatti illustrate
 re lontano: distanza > Sar
 ***action diagram:** the illustrated contacts configurations refer to act

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Validity Conditions



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The right to use the mark shown on the document only covers the products mentioned in this document.

Each product must be accompanied by the necessary operating and assembly instructions. All products must clearly state the name of the manufacturer.

In addition to the above conditions, this document of TÜV Italia shall apply the actual condition of the overall contract.

The document is valid for all the time in which it can be considered applicable requirements of the state of art according to which the validation has been performed.

The product take in exam in this technical document is not covered by Annex IV of 2006/42/EC Directive.