



EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH
COMPACT MUON SOLENOID COLLABORATION

URL : <http://cms.cern/>



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CNPJ: 33.540.014/0001-5

Geneva, April 4, 2025

Our reference: CMS-202500404/ShippingReq.10965865

CERTIFICATE to serve as PRO-FORMA INVOICE

This is to certify, that CMS Collaboration is giving a donation of the following material to Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brazil.

The material is shipped to UERJ, Brazil for research and educational needs only. These items were purchased at CERN for the CMS Muon iRPC project for which they are now obsolete.

Item List

Item	Quantity	Description	Unit Price (CHF)	Total Price (CHF)	HS Code	Inventory Ref.	Country	Manufacturer
1	6 Pieces	Cable for operation of the Multi- Wire Proportional Chamber detectors (Related to items 7, 8, 9, 10, 11, 12)	10	60	8544.42.00		Switzerland (CH)	CERN
2	2 Pieces	Paper catalogs/ manuals of instruments	5	10	4901.99.00		Italy (IT)	CAEN
3	3 Pieces	Light Guides for assembly of scintillation detectors made of acrylic	50	150	9001.90.90		Switzerland (CH)	CERN
4	2 Pieces	Plastic scintillator crystal to build	80	160	9030.90.10		Switzerland (CH)	Saint-Goubain

		particle detector						
5	2 Pieces	Parallel Plastic sheets with black conductive coating	80	160	3921.90.90		South Korea (KR)	KODEL
6	1 Piece	Resistive Plate Chamber detector decomissioned from CMS-RPC	2000	2000	9030.10.10		Switzerland (CH)	CERN
7	4 Pieces	Multi-Wire Proportional Chamber detectors (Related to items 1, 8, 9, 10, 11, 12)	1000	4000	9030.10.10		Switzerland (CH)	CERN
8	1 Piece	Service board interface for operation of the Multi-Wire Proportional Chamber detectors (Related to items 1, 7, 9, 10, 11, 12)	100	100	9030.90.90		Switzerland (CH)	CERN
9	1 Piece	VME Bin with modules for operation of the Multi-Wire Proportional Chamber detectors (Related to items 1, 7, 8, 10, 11, 12)	100	100	9030.90.90		Germany (DE)	Wiener-GmbH
10	14 Pieces	Signal Cable for operation of the Multi- Wire Proportional Chamber detectors (Related to items 1, 7, 8, 9, 11, 12)	10	140	8544.42.00		Switzerland (CH)	CERN
11	5 Pieces	Low Voltage Supply cable for operation of	10	50	8544.42.00		Switzerland (CH)	

		the Multi-Wire Proportional Chamber detectors (Related to items 1, 7, 8, 9, 10, 12)						CERN
12	3 Pieces	High Voltage Supply cable for operation of the Multi-Wire Proportional Chamber detectors (Related to items 1, 7, 8, 9, 10, 11)	10	30	8544.42.00		Switzerland (CH)	CERN
13	2 Pieces	NIM Standard Crate with High Voltage power supply for particle physics instrumentation	500	1000	8543.70.99		France (FR), Germany (DE)	NOVELEC, Wiener GmbH
14	1 Piece	CAMAC Standard Crate with modules for particle physics instrumentation	500	500	8543.70.99		Germany (DE)	Wiener-GmbH
15	4 Pieces	CAMAC Instrument modules (Related to item 14)	200	800	8543.70.99		Switzerland (CH), Italy (IT)	LeCroy, CAEN
16	2 Pieces	CAMAC Crate Power Supply (Related to item 14)	500	1000	8504.40.30		Germany (DE)	Wiener-GmbH
17	1 Piece	VME Crate for scientific instrumentation	500	500	8543.70.99		Germany (DE)	WES-Crates GmbH, Kristensen GmbH
18	1 Piece	VME expansion bus module for VME Crate, to allow tests o and	50	50	8543.70.99		Germany (DE)	Wiener-GmbH

		development of electronic boards						
19	1 Piece	Low voltage supply distribution box	20	20	8504.40.90		Switzerland (CH)	CERN
20	1 set	General Purpose Low-voltage cable, copper lemo (20), copper ground (1), lemo-to-flying lead (16)	50	50	8544.42.00		Switzerland (CH)	CERN
21	2 Pieces	3 Prong AC Power supply cable	10	20	8544.42.00		Switzerland (CH)	General brand electrical power cables
22	1 Set	High-Voltage cables, jupyter-jupyter (6), jupyter-to-flying lead (2), SHV-SHV (9)	50	50	8544.20.00		Italy (IT)	NOVACAVI
23	1 Piece	Flat Cable for data transfer from detectors.	10	10	8544.42.00		France (FR)	CPE
24	2 Pieces	Pipes made of polypropylene to supply gas to detectors	30	60	3917.22.90		Switzerland (CH)	Festo
25	1 Piece	Blue plastic pipe for water cooling of electronics	30	30	3917.21.00		Switzerland (CH)	Legris
26	1 Piece	Rotameters panel for gas distribution to detectors	100	100	9026.80.00		Switzerland (CH)	CERN
27	1 Piece	General Power Supply (BICC VERO PK110) for electronics boards	200	200	8504.40.30		United Kingdom (UK)	BICC VERO Electronics
28	1 Set	Cables, ring terminal (1), USB cable (1), bananabanana (4), banana-LV	50	50	8544.42.00		France (FR)	CERN

		(4) for general connections and tests.						
29	17 Pieces	Jupyter connector to construct cables to connect power supplies to detectors	10	170	8535.30.19		Italy (IT)	CPE
30	1 Pieces	Equipment for data transfer from detector. USB CAN interface and gateway	10	10	8543.70.90		Germany (DE)	SYS TEC Electronic
31	1 Piece	Crimping Tool to construct cables with connectors	20	20	8205.59.00		United States (US)	DMC
32	2 Pieces	Copper tape to construct electric shielding and electrodes.	15	30	7409.11.00		France (FR)	3M
33	3 Pieces	Plastic Y connection for gas pipes to split gas lines	10	30	3917.40.90		France (FR), United States (US)	Legriss, Swagelok
34	2 Pieces	Fast connector for gas pipes to interconnect gas supplies	30	60	7307.93.00		France (FR), United States (US)	Legriss, Swagelok
35	1 Piece	Pannel with 6 glass bubblers to use with gas chambers	80	80	7010.90.90		Switzerland (CH)	CERN
36	1 Piece	Box with 3 glass bubblers to use with gas chambers	70	70	7010.90.12		Switzerland (CH)	CERN
37	20 Pieces	Metallic grids made of aluminium to construct chambers	2	40	7604.29.19		Switzerland (CH)	CERN
38	2 Pieces	Bag with some screws to assemble chambers	1	2	7318.15.00		France (FR)	CERN

39	4 Pieces	Flexible pipes to supply chambers with gas	10	40	3917.39.00		France (FR)	Festo
			TOTAL	11'952				

Additional Details – Shipping is paid by the CERN Team Account T273460

Value for Insurance: CHF 11'952.00

Transport Required: Both internal & external transport service

Fragility: Fragile

Number of Packets: 2

Dimensions (cm): Length: 204, Width: 98, Height: 46

Total Weight (kg): 500

Pick-up Date: 08.04.2025

Latest Delivery Date: 23.04.2025

Special Transport / Packaging Instructions/Contacts:

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We also certify that all of these items are non-hazardous and have no commercial value.

Yours sincerely,


Kirsti Aspola

