

# Specifications

Function	Specification	Supplementary Information
I/O capacity	smartRTU – FX3 CPU; 14 – 384 max SmartRTU – L CPU; 24 – 4096 max SmartRTU – Q CPU; 32 – 8192 max	Controllable I/Os
Power Consumption	smartRTU – FX: 12W smartRTU – L: 17W smartRTU – Q: 14W	16 digital I/O version (8xDI, 8xDO) 24 digital I/O version (16xDI, 8xDO) 32 digital I/O version (16xDI, 16xDO)
Analog I/Os	Input: Output:	0-5V; 0-10V; -10V-10V; TC/RTD; 0/4-20mA 0-5V; 0-10V; -10V-10V; 0/4-20mA
Digital I/Os	Input: Output:	Voltage: 24VDC Transistor: sink or source (5 ~ 24 VDC), Relay (up to 240 VAC)
Additional I/Os	Turbine meter counters (Input): Pulse output (Gate / Servo Positioning Modules):	<ul style="list-style-type: none"> <li>Signal levels = 5, 12, 24VDC, differential line driver inputs</li> <li>Frequencies: 50Hz – 200kHz ranges available</li> <li>10 ~ 100,000 pulse/sec outputs</li> </ul>
Communication channels	Cellular network (GPRS, EDGE) – Quad-Band 850 / 900 / 1800 / 1900 MHz)	<ul style="list-style-type: none"> <li>Via built-in cellular transmitter/receiver</li> <li>SMA antenna connector</li> <li>User-provided SIM Card with data contract / APN from local cellular network provider</li> </ul>
	Ethernet (10/100 Mbps)	RJ45 connector to, for example, corporate WAN (IEEE 802.3), xDSL (ITU G.992.x) or PLC (Power Line Communication) WAN (IEEE 1901) <sup>1</sup>
	Serial	Via USB port plus USB / serial converter to an external Radio, PSTN or satellite modem
Communication protocols (host-side)	DNP3 (IEEE 1815) IEC 60870-5-101 IEC 60870-5-104	Yes (Level 2 Slave) Yes (Slave) Yes (Slave)
Communication protocols (field-side)	IEC 60870-5-104 <sup>2</sup> IEC 61850 <sup>3</sup>	Yes (Master) Yes (Client + Publisher/Subscriber for GOOSE)
Time synchronisation	SNTP / NTP (or from DNP3 / IEC 60870-5 protocol)	Selectable from suitable (S)NTP server (GPS, GLONASS, Radio clock sourced) or via the DNP3 or IEC 60870 protocols
Store and forward	Yes	<ul style="list-style-type: none"> <li>RTU samples and stores data locally when communication channel to SCADA host is interrupted and transmits this stored data when the channel is restored</li> <li>User configurable store and forward buffer size</li> </ul>

Bus Technology	smartRTU – FX				smartRTU – L				smartRTU – Q			
	Master	Slave	Master	Slave	Master	Slave	Master	Slave	Master	Slave	Master	Slave
Profibus-DP												
Modbus/TCP	Master											
	Slave											
Modbus/RTU (serial)	Master											
	Slave											
DeviceNET	Master											
	Slave											
CC-Link	Master											
	Slave											
CC-Link IE field	Master											
	Slave											
CANopen	Master											
	Slave											

- ① External router required
- ② IEC 60870-5-104 Master available in next Version
- ③ IEC 61850 available in an upcoming Version

For more information contact your local customer technology centre

## European Offices

Mitsubishi Electric Europe B.V. Gothaer Straße 8 D-40880 Ratingen Phone: +49 (0)2102 / 486-0	Germany	Mitsubishi Electric Europe B.V. 52, bld. 3 Kosmodamianskaya nab 8 floor RU-115054 Moscow Phone: +7 495 721 2070	Russia
Mitsubishi Electric Europe B.V. Radická 751/112e Avenir Business Park CZ-158 00 Praha 5 Phone: +420 251 551 470	Czech Rep.	Mitsubishi Electric Europe B.V. Carretera de Rubí 76-80 Apdo. 420 E-08190 Sant Cugat del Valles (Barcelona) Phone: +34 (0)93 / 9653131	Spain
Mitsubishi Electric Europe B.V. 25, Boulevard des Bouvets F-92741 Nanterre Cedex Phone: +33 (0)1 55 68 55 68	France	Mitsubishi Electric Scandinavia Fyrisvägen 8 SE-22736 Lund Phone: +46 (0)8 625 10 00	Sweden
Mitsubishi Electric Europe B.V. Viale Colonna 7 Palazzo Sirio I-20864 Agrate Brianza (MB) Phone: +39 039 / 60 53 1	Italy	Mitsubishi Electric Türkiye Serifali Mahallesi Nutuk Sokak No:5 TR-34775 Ümraniye-İSTANBUL Phone: +90 (0)216 / 526 39 30	Turkey
Mitsubishi Electric Europe B.V. Westgate Business Park, Ballymount IRL-Dublin 24 Phone: +353 (0)1 4198800	Ireland	Mitsubishi Electric Europe B.V. Travellers Lane UK-Hatfield, Herts. AL10 8XB Phone: +44 (0)1707 / 28 87 80	UK
Mitsubishi Electric Europe B.V. ul. Krakowska 50 PL-32 083 Balice Phone: +48 (0)12 630 47 00	Poland	Mitsubishi Electric Europe B.V. Dubai Silicon Oasis United Arab Emirates - Dubai Phone: +971 4 3724716	UAE

## Representatives

GEVA Wenzer Straße 89 A-2500 Baden Phone: +43 (0)2252 / 85 55 20	Austria	Beijer Electronics A/S Lykkedgadevej 17 DK-4000 Roskilde Phone: +45 (0)46 / 75 76 66	Denmark	Beijer Electronics SIA Ritaušmas iela 23 LV-1058 Rīga Phone: +371 (0)6 / 784 2280	Latvia	Sirius Trading & Services Alcoa Lacul Moni Nr. 3 RO-060841 Bucuresti, Sector 6 Phone: +20 (0)2 / 235 98 548	Romania	I.C. SYSTEMS Ltd. 2) Al-Saad Al-Alex St. EG-Sarayut, Maadi, Cairo Phone: +20 (0)2 / 235 98 548	Egypt
OOO TECHNIKON Prospect Nezavisnosti 177-9 BY-220125 Minsk Phone: +375 (0)17 / 393 1177	Belarus	HANS FOLSGAARD A/S Theligaards Torv 1 DK-4600 Køge Phone: +45 4320 8000	Denmark	Beijer Electronics UAB Goštautų g. 3 LT-48324 Kaunas Phone: +370 37 262707	Lithuania	INEA SR Išleivickia 10 SER-113000 Smederevo Phone: +381 (0)26 / 615 401	Serbia	GIRIT CELADON Ltd. 12 Fasmanut Street IL-42505 Netanya Phone: +972 (0)9 / 863 39 80	Israel
ESCO DRIVES Gulligatan 3 BE-1831 Diegem Phone: +32 (0)2 / 717 64 60	Belgium	Beijer Electronics Eesti OÜ Pärnu mnt. 160 EE-11317 Tallinn Phone: +372 (0)6 / 51 81 40	Estonia	ALPATRADE Ltd. 99, Paola Hill Malta-Paola PLA 1702 Phone: +356 (0)21 / 697 816	Malta	SIMAP s.r.o. Jana Dierku 1671 SK-911 01 Trenčín Phone: +41 (0)32 / 743 04 72	Slovakia	CEG LIBAN Cebaco Center/Block 4 Autostrade DORA Lebanon-Beirut Phone: +961 (0)1 / 240 445	Lebanon
KONING & HARTMAN B.V. Wiluwelaan 31 BE-1800 Wilvoorde Phone: +32 (0)2 / 257 02 40	Belgium	Beijer Electronics OY Vanha Nummisjärventie 62 FIN-01670 Vantaa Phone: +358 (0)207 / 463 500	Finland	INTEHSS SRL bld. Traian 23/1 MD-2060 Kishinev Phone: +373 (0)22 / 66 4242	Moldova	INEA RBT d.o.o. Stjepca 11 SI-1000 Ljubljana Phone: +386 (0)1 / 513 8116	Slovenia	ADROIT TECHNOLOGIES 20 Waterford Office Park, 189 Witkoppen Road ZA-Fourways Phone: +27 (0)11 / 658 8100	South Africa
INEA RBT d.o.o. Stjepca 11 SI-1000 Ljubljana Phone: +386 (0)1 / 513 8116	Bosnia and Herzeg.	PROVENDOR OY Teljankatu 8 A3 FIN-28130 Pori Phone: +358 (0)2 / 522 3300	Finland	HIFLEX AUTOM. B.V. Wolweverstraat 22 NL-2984 CD Ridderkerk Phone: +31 (0)180 / 46 60 04	Netherlands	Beijer Electronics Automation AB Box 426 SE-20124 Malmö Phone: +46 (0)40 / 35 96 00	Sweden		
AKHNATON 4, Andrei Lipschev Blvd., PO Box 21 BG-1756 Sofia Phone: +359 (0)2 / 817 6000	Bulgaria	UTECO A.B.E.E. Vanha Nummisjärventie 62 GR-18542 Piraeus Phone: +30 (0)211 / 1206-900	Greece	KONING & HARTMAN B.V. Haarlerbergweg 21-23 NL-1101 CH Amsterdam Phone: +31 (0)20 / 587 76 00	Netherlands	OMNI RAY AG Im Schöti 5 CH-8600 Dübendorf Phone: +41 (0)44 / 802 28 80	Switzerland		
INEA CR Loznicka 4a HR-10000 Zagreb Phone: +385 (0)1 / 36 940-01-02/-03	Croatia	MELTRADE Kfl. Fertő utca 14 HU-1107 Budapest Phone: +36 (0)1 / 431-9726	Hungary	Beijer Electronics AS Frostboks 487 NO-3002 Drammen Phone: +47 (0)32 / 24 30 00	Norway	OOO "CSC AUTOMATION" 4-B.M. Raskovoyi St. UA-02660 Kiev Phone: +380 (0)44 / 494 33 44	Ukraine		
AutoCont C.S. S.R.O. Kafkova 1853/3 CZ-702 00 Ostrava 2 Phone: +420 595 691 150	Czech Republic	TOO Kazpromavtomatika Ul. Zhambyla 28 KAZ-100017 Karaganda Phone: +7 7212 / 50 10 00	Kazakhstan	Fonseca S.A. R. João Francisco do Casal 87/89 PT-3801-997 Aveiro, Esigueira Phone: +351 (0)234 / 303 900	Portugal				



Mitsubishi Electric Europe B.V. / FA - European Business Group / Gothaer Straße 8 / D-40880 Ratingen / Germany / Tel: +49(0)2102-4860 / Fax: +49(0)2102-4861120 / info@mitsubishi-automation.com / https://eu3a.mitsubishielectric.com

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