FRC-EP170

The FRC-EP170 comes with a variety of different automotive communication interfaces. It is ideal for applications in which several bus systems are to be merged into a single device with its own processing power – e.g. for logging, gateway and residual bus simulation applications.

All applications run on the device, a PC is only needed for configuration or stimulation/visualization of data, as the actual intelligence – for e.g. the transport protocols – is outsourced to the embedded platform.

HMS provides with → Ixxat ACT (Advanced Configuration Tool) an easy to use Windows-based tool enabling customers to configure the device via drag-&-drop.

HIGHLIGHTS

- Compact device
- With FlexRay support or as CANonly variant
- Up to 6 CAN (FD) channels in one device
- Only a few µs delay of frames in classical gateway applications
- Compatible to the Ixxat CAN@Net Generic Ethernet Protocol

TECHNICAL SPECIFICATIONS

Dimensions (L x W x H)	142 x 113 x 40 mm
Protection class	IP42
Weight	Approx. 390 g
Operating temperature	-40 °C to +80 °C
Power supply	6-36 V DC
Current consumption	Typ. 320 mA at 12 V
Housing material	Aluminum
Relative humidity	10-95 %, non-condensing
Host system	Power PC, 256 MByte RAM, 256 MByte Flash
Ethernet	10/100 MBit/s, RJ45
USB	2.0 high-speed device, USB-B 2.0 high-speed device, USB-A
FlexRay communication controller	2 x Freescale MFR 4310
FlexRay transceiver	NXP TJA1080
CAN transceiver CAN-FD	Texas Instruments TCAN334GDCN
CAN transceiver high-speed	Texas Instruments SN65HVD251
CAN transceiver low-speed	NXP TJA1054T
CAN bus termination resistor	High-speed/CAN-FD: none Low-speed: RTH=RTL=2 k Ohm
LIN transceiver	NXP TJA1020
K-LINE transceiver	Vishay SI9243AEY
System startup time	< 5 sec from power-on

CONTENTS OF DELIVERY

- FRC-EP170
- Cables for power and USB
- Hardware manual
- Runtime licences for Gateway and RBS

Order number

Order number	Product name	Galvanic isolation	FlexRay A/B	CAN interface count (total)	CAN high speed	CAN low speed (C)	CAN FD (B)	LIN	EtherCAT (slave)	Analog in	Digital in/out (A) (D)	Digital in/out (A) (E)	Ethernet 10/100 Base-T	USB 2.0 device	USB 2.0 host	SDHC slot	Interna WiFi
1.13.0142.01002	FRC-EP170 CANonly	no	0	4	4	1	0	1	0	0	4	0	1	1	1	1	0
1.13.0142.01302	FRC-EP170 Plus CANonly	no	0	6	6	1	2	1	0	0	4	0	1	1	1	1	0
1.13.0142.00002	FRC-EP170	no	1	4	4	1	0	1	0	0	4	0	1	1	1	1	0
1.13.0142.00302	FRC-EP170 Plus	no	1	6	6	1	2	1	0	0	4	0	1	1	1	1	0

(A) Input or output per software switchable
(B) 6/8 CAN in total, thereoff max. 2/4 CAN-FD capable
(C) 4/6/8 CAN in total, thereoff max. 1 Low-Speed CAN capable
(D) 4 digital inputs/outputs (5 V TTL)
(E) 4 digital inputs (max. 34 V), 4 digital outputs (max. 34 V, 1 ampere)