

ModbusTCP

- 2 x 10 A current path
- Web server
- System supply for 64 I/O modules
- Temperature range: -20... +60 °C
- Dual LAN mode
- Various Modbus services

Technical data

System data
Connection type
Field bus protocol
Process data
Parameter data
Diagnostic data
max. number of modules
Configuration interface
Transmission rate of field bus, max.
Transmission speed of system bus, max.
Supply
Supply voltage for inputs
Supply voltage for outputs
Feed current for I _{IN} (input current path) , max.
Feed current for I _{OUT} (output current path) , max.
Current consumption I _N (power segment of the field bus coupler), typ.
General data
Weight
Dimensions H x W x D
Note

Ordering data

Module variants
Fieldbus coupler, ModbusTCP
Note

Accessories

Termination kit
Swivel marker
Connection marker for pusher custom printing
Connection marker for pusher neutral
Module marker for custom printing
Module marker for neutral
Thermotransfer version (Material: Polyester)
Thermotransfer version (material: polyester)
Paper version for Laserprinter
USB cable (USB A to Micro USB)
Replacement parts
Plug-in connector unit
Note

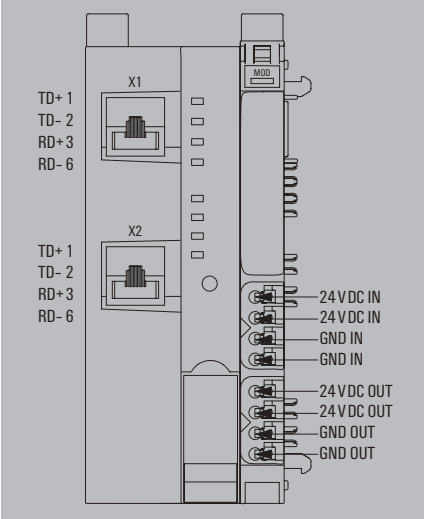
UR20-FBC-MOD-TCP-V2



2x RJ45 plug-in connectors
Modbus/TCP
1 kByte
1024 Byte
1024 Byte
64
Micro USB 2.0
100 Mbit/s
48 Mbit/s
24 V DC +20 %/ -15 %
24 V DC +20 %/ -15 %
10 A
10 A
112 mA
223 g
120 mm / 52 mm / 76 mm

Type	Qty.	Order No.
UR20-FBC-MOD-TCP-V2	1	2476450000
A termination kit (UR20-EBK-ACC) is included in the coupler package		

Type	Qty.	Order No.
UR20-EBK-ACC	5	1346610000
UR20-SM-ACC	20	1339920000
PM 2.7/2.6 MC SDR	192	1323700000
PM 2.7/2.6 MC NE WS	960	1323710000
DEK 5/8-11.5 MC SDR	100	1341610000
DEK 5/8-11.5 MC NE WS	500	1341630000
THM UR20 GE	1	1429910000
THM UR20 WS	1	1429420000
ESO UR20 DIN A4 WS	10	1429430000
IE-USB-A-MICRO-1.8M	1	1487980000
UR20-PK-2476450000-SP	5	2485280000
1 roll = 1000 labels = 1 Qty. 1 sheet = 60 labels = 1 unit		



ModbusTCP ECO

- 10 A current paths
- Web server via ethernet
- System supply of 16 I/O modules
- Temperature range 0... +50 °C
- Various Modbus services

Technical data

System data
Connection type
Field bus protocol
Process data
Parameter data
Diagnostic data
max. number of modules
Transmission rate of field bus, max.
Transmission speed of system bus, max.
Supply
Voltage supply
Feed current for I _N (input current path) , max.
Current consumption I _N (power segment of the field bus coupler), typ.
General data
Weight
Dimensions H x W x D
Note

Ordering data

Module variants
Fieldbus coupler, ModbusTCP
Note

Accessories

Termination kit
Swivel marker
Connection marker for pusher custom printing
Connection marker for pusher neutral
Module marker for custom printing
Module marker for neutral
Thermotransfer version (Material: Polyester)
Thermotransfer version (material: polyester)
Paper version for Laserprinter
Replacement parts
Plug-in connector unit
Note

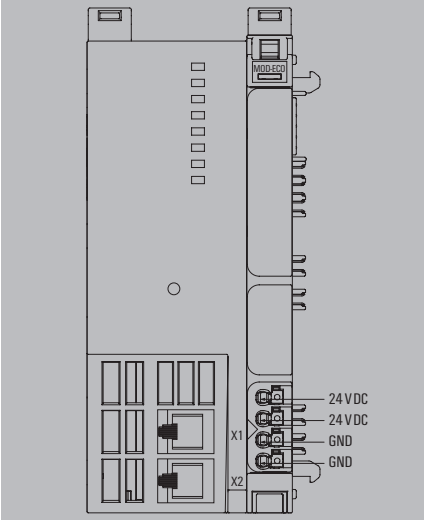
UR20-FBC-MOD-TCP-ECO



2x RJ45 plug-in connectors
Modbus/TCP
1 kByte
1 kByte
1 kByte
16
100 Mbit/s
48 Mbit/s
24 V DC +20 %/ -15 %, via the system bus
10 A
80 mA
247 g
120 mm / 52 mm / 76 mm

Type	Qty.	Order No.
UR20-FBC-MOD-TCP-ECO	1	2659700000
A termination kit (UR20-EBK-ACC) is included in the coupler package.		

Type	Qty.	Order No.
UR20-EBK-ACC	5	1346610000
UR20-SM-ACC	20	1339920000
PM 2.7/2.6 MC SDR	192	1323700000
PM 2.7/2.6 MC NE WS	960	1323710000
DEK 5/8-11.5 MC SDR	100	1341610000
DEK 5/8-11.5 MC NE WS	500	1341630000
THM UR20 GE	1	1429910000
THM UR20 WS	1	1429420000
ESO UR20 DIN A4 WS	10	1429430000
UR20-PK-2659700000-SP	5	2702610000
1 roll = 1000 labels = 1 Qty. 1 sheet = 60 labels = 1 unit		



3EM-400V-AC-CT1A

- 1-phase power measurement for 1 A converter (with or without transformer)
- 16 bit resolution
- 32 bit resolution for energy meters
- Power-/ reactiv power measurement
- Energy meter Active / reactive
- Power factor
- Frequency measurement 45 ... 65 Hz
- Analysis of 43 harmonics

Technical data

System data
Interface
Transmission speed of system bus, max.
Galvanic isolation
Supply
Voltage supply
Current consumption I _N (power segment of the field bus coupler), typ.
Current consumption I _N (the respective power segment)
Analogue inputs
Number
Rated voltage
Resolution
Sampling rate of current measurement
Frequency of the supply system
Analysis of harmonic
Power rating
Insulation
Category for voltage measurements
Measurement method
Measurement accuracy
Connectable converter ratios
Input impedance voltage
Input impedance current (differential)
General data
Weight
Dimensions H x W x D
Note

Ordering data

Module variants
Power measurement module, 3 channels
Note

Accessories

	Coding elements
	Termination kit
	Swivel marker
Connection marker for pusher custom printing	
Connection marker for pusher neutral	
Module marker for custom printing	
Module marker for neutral	
Thermotransfer version (Material: Polyester)	
Thermotransfer version (material: polyester)	
Paper version for Laserprinter	
Replacement parts	
	Electronic module
	Basic module
	Plug-in connector unit
Note	

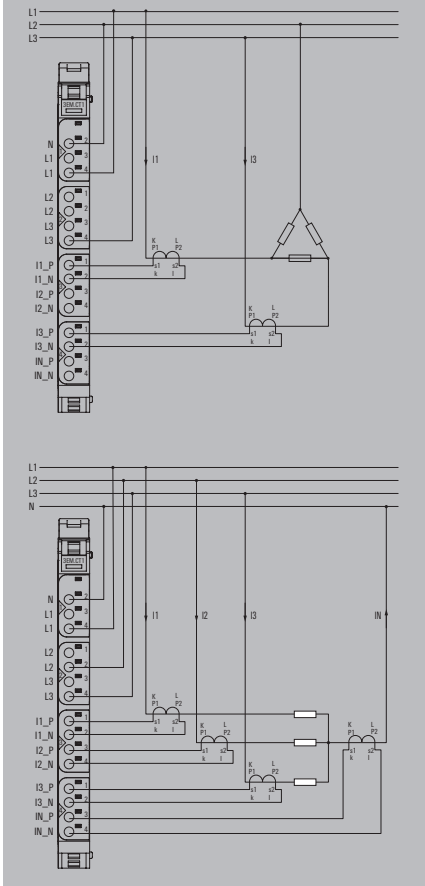
UR20-3EM-400V-AC-CT1A



u-remote system bus
192 Mbit
500 V DC between the current paths
24 V DC +20 %/-15 %, via the system bus, 24V DC +20 %/-15 % (according to IEC 61131), 24V DC +30%/-25% (according to DNV GL)
8 mA
<35 mA
3 voltage inputs / 4 current inputs
300 V eff AC (L-N), 520 V eff AC (L-L), according to table I.1 of IEC 61010-1:2010/AMD1:2016/COR1:2019
16 bit per channel (internal 24 bit), 32 bit for energy counter
Sigma Delta ADC with 1.024 MHz (bandwidth of interest from 40 Hz to 3.3 kHz)
45...65 Hz
up to 43rd
0...1 A AC
reinforced insulation
CAT III (according to IEC 61010-1), CAT II (according to IEC 61010-1) for installations with rated voltage to earth > 300 V
High Resolution Delta Sigma (current measurement in outer conductor)
0.25% in relation to final value (U / I), 0.5% for the calculated values, 0.75% for harmonics
1:1
1.881 MΩ
40 mΩ
91 g
120 mm / 11.5 mm / 76 mm

Type	Qty.	Order No.
UR20-3EM-400V-AC-CT1A	1	2920830000

Type	Qty.	Order No.
KOSM BHZ5.00	100	1483050000
UR20-EBK-ACC	5	1346610000
UR20-SM-ACC	20	1339920000
PM 2.7/2.6 MC SDR	192	1323700000
PM 2.7/2.6 MC NE WS	960	1323710000
DEK 5/8-11.5 MC SDR	100	1341610000
DEK 5/8-11.5 MC NE WS	500	1341630000
THM UR20 GE	1	1429910000
THM UR20 WS	1	1429420000
ESD UR20 DIN A4 WS	10	1429430000
UR20-EM-2920830000-SP	1	3052120000
UR20-BM-SP	5	1350930000
UR20-PK-2920830000-SP	5	3052170000



u-remote – I/O Systeme IP20

3EM-400V-AC-CT5A

- 1-phase power measurement for 5 A converter (with or without transformer)
- 16 bit resolution
- 32 bit resolution for energy meters
- Power-/ reactiv power measurement
- Energy meter Active / reactive
- Power factor
- Frequency measurement 45 ... 65 Hz
- Analysis of 43 harmonics

Technical data

System data
Interface
Transmission speed of system bus, max.
Galvanic isolation
Supply
Voltage supply
Current consumption I _N (power segment of the field bus coupler), typ.
Current consumption I _N (the respective power segment)
Analogue inputs
Number
Rated voltage
Resolution
Sampling rate of current measurement
Frequency of the supply system
Analysis of harmonic
Power rating
Insulation
Category for voltage measurements
Measurement method
Measurement accuracy
Connectable converter ratios
Input impedance voltage
Input impedance current (differential)
General data
Weight
Dimensions H x W x D
Note

Ordering data

Module variants
Power measurement module, 3 channels
Note

Accessories

Coding elements
Termination kit
Swivel marker
Connection marker for pusher custom printing
Connection marker for pusher neutral
Module marker for custom printing
Module marker for neutral
Thermotransfer version (Material: Polyester)
Thermotransfer version (material: polyester)
Paper version for Laserprinter
Replacement parts
Electronic module
Basic module
Plug-in connector unit
Note

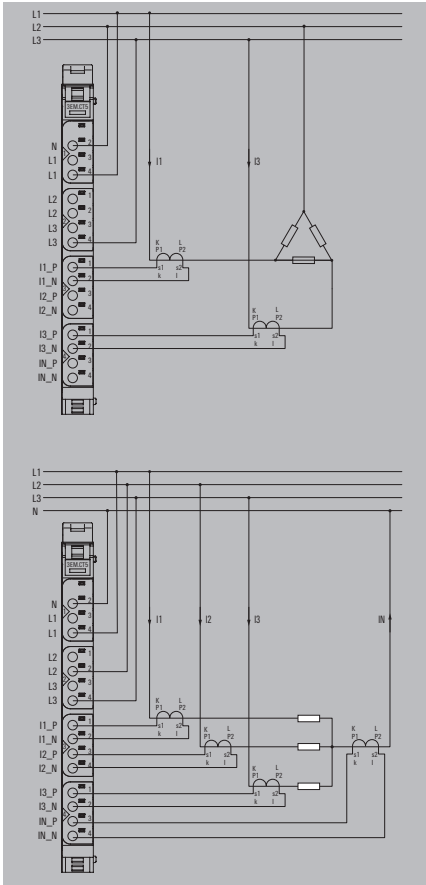
UR20-3EM-400V-AC-CT5A



u-remote system bus
192 Mbit
500 V DC between the current paths
24 V DC +20 %/-15 %, via the system bus, 24V DC +20 %/-15 % (according to IEC 61131), 24V DC +30%/-25% (according to DNV GL)
8 mA
<35 mA
3 voltage inputs / 4 current inputs
300 V eff AC (L-N), 520 V eff AC (L-L), according to table I.1 of IEC 61010-1:2010/AMD1:2016/COR1:2019
16 bit per channel (internal 24 bit), 32 bit for energy counter
Sigma Delta ADC with 1.024 MHz (bandwidth of interest from 40 Hz to 3.3 kHz)
45...65 Hz
up to 43rd
0...5 A AC
reinforced insulation
CAT III (according to IEC 61010-1), CAT II (according to IEC 61010-1) for installations with rated voltage to earth > 300 V
High Resolution Delta Sigma (current measurement in outer conductor)
0.25% in relation to final value (U / I), 0.5% for the calculated values, 0.75% for harmonics
5:5
1.881 MΩ
5 mΩ
91 g
120 mm / 11.5 mm / 76 mm

Type	Qty.	Order No.
UR20-3EM-400V-AC-CT5A	1	2920840000

Type	Qty.	Order No.
KOSM BHZ5.00	100	1483050000
UR20-EBK-ACC	5	1346610000
UR20-SM-ACC	20	1339920000
PM 2.7/2.6 MC SDR	192	1323700000
PM 2.7/2.6 MC NE WS	960	1323710000
DEK 5/8-11.5 MC SDR	100	1341610000
DEK 5/8-11.5 MC NE WS	500	1341630000
THM UR20 GE	1	1429910000
THM UR20 WS	1	1429420000
ESD UR20 DIN A4 WS	10	1429430000
UR20-EM-2920840000-SP	1	3052130000
UR20-BM-SP	5	1350930000
UR20-PK-2920840000-SP	5	3052180000



3EM-400V-AC-RC

- 1-phase power measurement for Rogowski coils
- 16 bit resolution
- 32 bit resolution for energy meters
- Power-/ reactiv power measurement
- Energy meter Active / reactive
- Power factor
- Frequency measurement 45 ... 65 Hz
- Analysis of 43 harmonics

Technical data

System data
Interface
Transmission speed of system bus, max.
Galvanic isolation
Supply
Voltage supply
Current consumption I _N (power segment of the field bus coupler), typ.
Current consumption I _N (the respective power segment)
Analogue inputs
Number
Rated voltage
Resolution
Sampling rate of current measurement
Frequency of the supply system
Analysis of harmonic
Power rating
Insulation
Category for voltage measurements
Measurement method
Measurement accuracy
Input impedance voltage
General data
Weight
Dimensions H x W x D

Note

Ordering data

Module variants
Power measurement module, 3 channels
Note

Accessories

	Coding elements
	Termination kit
	Swivel marker
Connection marker for pusher custom printing	
Connection marker for pusher neutral	
Module marker for custom printing	
Module marker for neutral	
Thermotransfer version (Material: Polyester)	
Thermotransfer version (material: polyester)	
Paper version for Laserprinter	
Replacement parts	
	Electronic module
	Basic module
	Plug-in connector unit
Note	

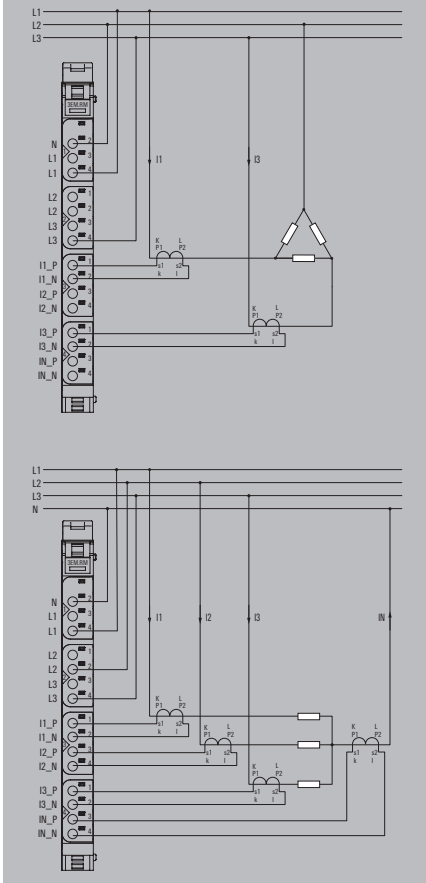
UR20-3EM-400V-AC-RC



u-remote system bus
192 Mbit
500 V DC between the current paths
24 V DC +20 %/-15 %, via the system bus, 24V DC +20 %/-15 % (according to IEC 61131), 24V DC +30%/25% (according to DNV GL)
8 mA
<35 mA
3 voltage inputs / 4 current inputs
300 V _{eff} AC (L-N), 520 V _{eff} AC (L-L), according to table I.1 of IEC 61010-1:2010/AMD1:2016/COR1:2019
16 bit per channel (internal 24 bit), 32 bit for energy counter
Sigma Delta ADC with 1.024 MHz (bandwidth of interest from 40 Hz to 3.3 kHz)
45...65 Hz
up to 43rd
112.5 mV _{eff} / 1 A _{eff} (50 Hz), 135 mV _{eff} / 1 A _{eff} (60 Hz)
reinforced insulation
CAT III (according to IEC 61010-1), CAT II (according to IEC 61010-1) for installations with rated voltage to earth > 300 V
Converter / Current transformer / Voltage transformer
0.25% in relation to final value (U / I), 0.5% for the calculated values, 0.75% for harmonics
1.881 MΩ
91 g
120 mm / 11.5 mm / 76 mm

Type	Qty.	Order No.
UR20-3EM-400V-AC-RC	1	2920850000

Type	Qty.	Order No.
KOSM BHZ5.00	100	1483050000
UR20-EBK-ACC	5	1346610000
UR20-SM-ACC	20	1339920000
PM 2.7/2.6 MC SDR	192	1323700000
PM 2.7/2.6 MC NE WS	960	1323710000
DEK 5/8-11.5 MC SDR	100	1341610000
DEK 5/8-11.5 MC NE WS	500	1341630000
THM UR20 GE	1	1429910000
THM UR20 WS	1	1429420000
ESD UR20 DIN A4 WS	10	1429430000
UR20-EM-2920850000-SP		3052140000
UR20-BM-SP	5	1350930000
UR20-PK-2920850000-SP		3052190000



u-remote – I/O Systeme IP20

3EM-400V-AC-333MV

- 1-phase power measurement for current transformers with 333 mV output
- 16 bit resolution
- 32 bit resolution for energy meters
- Power-/ reactiv power measurement
- Energy meter Active / reactive
- Power factor
- Frequency measurement 45 ... 65 Hz
- Analysis of 43 harmonics

Technical data

System data
Interface
Transmission speed of system bus, max.
Galvanic isolation
Supply
Voltage supply
Current consumption I _N (power segment of the field bus coupler), typ.
Current consumption I _N (the respective power segment)
Analogue inputs
Number
Rated voltage
Resolution
Sampling rate of current measurement
Frequency of the supply system
Analysis of harmonic
Power rating
Insulation
Category for voltage measurements
Measurement method
Measurement accuracy
Input impedance voltage
General data
Weight
Dimensions H x W x D

Note

Ordering data

Module variants
Power measurement module, 3 channels
Note

Accessories

Coding elements
Termination kit
Swivel marker
Connection marker for pusher custom printing
Connection marker for pusher neutral
Module marker for custom printing
Module marker for neutral
Thermotransfer version (Material: Polyester)
Thermotransfer version (material: polyester)
Paper version for Laserprinter
Replacement parts
Electronic module
Basic module
Plug-in connector unit
Note

UR20-3EM-400V-AC-333MV



u-remote system bus
192 Mbit
500 V DC between the current paths
24 V DC +20 %/-15 %, via the system bus, 24V DC +20 %/-15 % (according to IEC 61131), 24V DC +30%/-25% (according to DNV GL)
8 mA
<35 mA
3
300 V _{eff} AC (L-N), 520 V _{eff} AC (L-L), according to table I.1 of IEC 61010-1:2010/AMD1:2016/COR1:2019
16 bit per channel (internal 24 bit), 32 bit for energy counter
Sigma Delta ADC with 1.024 MHz (bandwidth of interest from 40 Hz to 3.3 kHz)
45...65 Hz
up to 43rd
333 mV _{eff} / 1 A _{eff}
reinforced insulation
CAT III (according to IEC 61010-1), CAT II (according to IEC 61010-1) for installations with rated voltage to earth > 300 V
Converter / Current transformer / Voltage transformer
0.25% in relation to final value (U / I), 0.5% for the calculated values, 0.75% for harmonics
1.881 MΩ
91 g
120 mm / 11.5 mm / 76 mm

Type	Qty.	Order No.
UR20-3EM-400V-AC-333MV	1	2920860000

Type	Qty.	Order No.
KOSM BHZ5.00	100	1483050000
UR20-EBK-ACC	5	1346610000
UR20-SM-ACC	20	1339920000
PM 2.7/2.6 MC SDR	192	1323700000
PM 2.7/2.6 MC NE WS	960	1323710000
DEK 5/8-11.5 MC SDR	100	1341610000
DEK 5/8-11.5 MC NE WS	500	1341630000
THM UR20 GE	1	1429910000
THM UR20 WS	1	1429420000
ESD UR20 DIN A4 WS	10	1429430000
UR20-EM-2920860000-SP		3052200000
UR20-BM-SP	5	1350930000
UR20-PK-2920860000-SP		3052210000

