



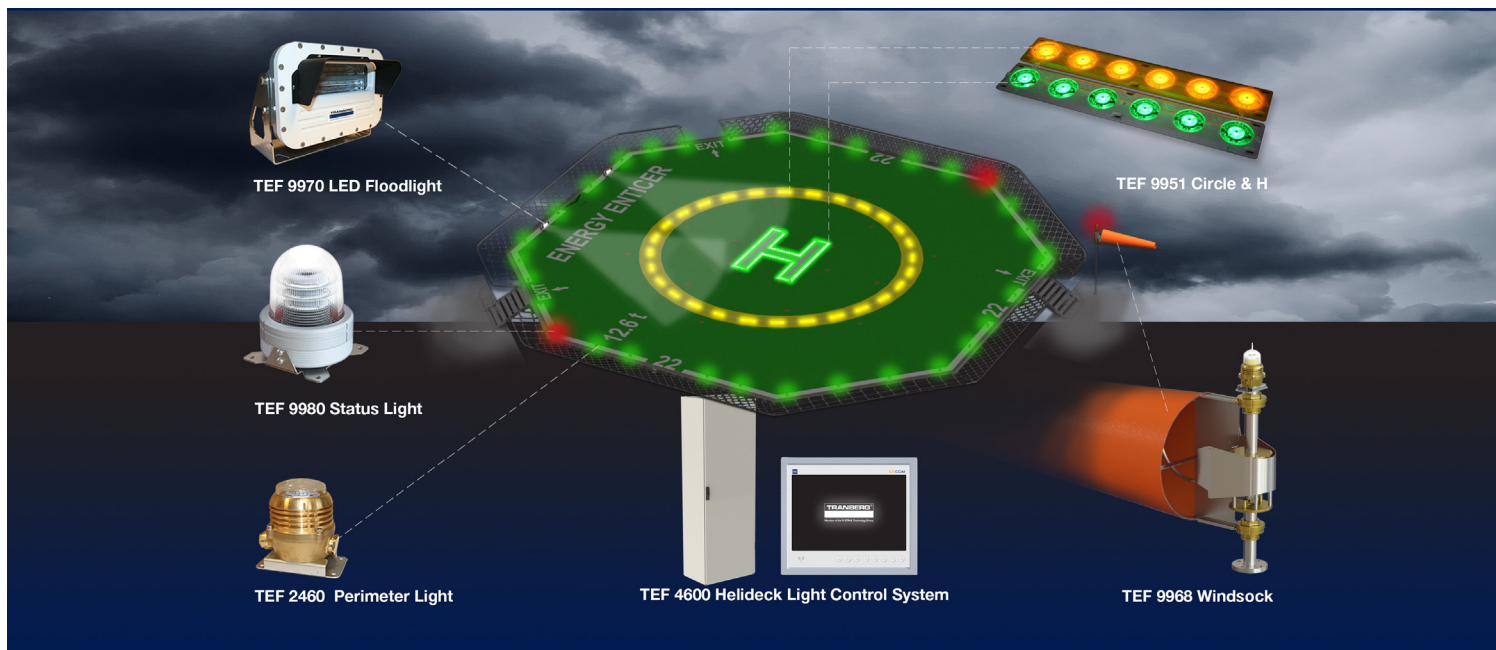
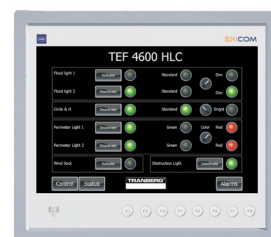
TEF 4600 HELIDECK CONTROL MODBUS TCP/IP COMMUNICATION SPECIFICATIONS & DATA REGISTERS USER MANUAL

Subject to change without prior notice TUM6385 REV. B 06.08.2020

COMMUNICATION SETTINGS

Ethernet

Server IP address 192.168.100.186
Server node ID: 107
TCP port: 502



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ALARM HANDLING

Register address	Variable	Function code	Description
0.X0	Common Alarm Out Status	FC 1, FC 2	1= Active
0.X1	Helideck Lights Fault Status	FC 1, FC 2	1= Active
0.X2	Common Alarm Present Status	FC 1, FC 2	1= Active
0.X3	Common Alarm Acknowledged Status	FC 1, FC 2	1= Active
0.X14	Common Alarm Reset Write Access Command	FC 5, FC 15	1= Command
0.X15	Common Alarm Reset Command	FC 5, FC 15	Writes on rising edge of X14. 1= Command

POWER MANAGEMENT

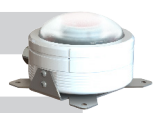
Register address	Variable	Function code	Description
1.X0	DC OK Power Supply 1 Status	FC 1, FC 2	1= Active
1.X1	Power Supply 1 In Use Status	FC 1, FC 2	1= Active
1.X2	DC OK Power Supply 2 Status	FC 1, FC 2	1= Active
1.X3	Power Supply 2 In Use Status	FC 1, FC 2	1= Active
1.X4	Spare	FC 1, FC 2	1=Active
1.X5	Main Power Supply CB Fault	FC 1, FC 2	1=Active
1.X6	Dc OK PS1 Fault	FC 1, FC 2	1=Active
1.X7	Em Pwr Supply CB Fault	FC 1, FC 2	1=Active
1.X8	Dc OK PS2 Fault	FC 1, FC 2	1=Active
1.X9	UPS Power Supply CB Fault	FC 1, FC 2	1=Active
1.X10	Dc OK PS3 Fault	FC 1, FC 2	1=Active

MAIN

Register address	Variable	Function code	Description
2.X0	All Helideck Lights On	FC 1, FC 2	1= Active
2.X1	Heartbeat In	FC 1, FC 2	1= Active
2.X12	Heartbeat In Write Access	FC 5, FC 15	1= Command signal
2.X13	Heart beat In Command	FC 5, FC 15	Writes on rising edge of 2.X12 1= Command signal
2.X14	All Helideck Lights On Write Access	FC 5, FC 15	1= Command signal
2.X15	All Helideck Lights On Command	FC 5, FC 15	Writes on rising edge of 2.X14. 1= Command signal

STATUS LIGHTS

Register adress	Variable	Function code	Description
3.X0	Dim Status Out	FC 1, FC 2	1= Active
3.X1	Activated Status Out	FC 1, FC 2	1= Active
3.X2	Status Lights Sync Out	FC 1, FC 2	1= Active
3.X3	CbmResetOut	FC 1, FC 2	1= Active
3.X4	Cbm Fault Out	FC 1, FC 2	1=Active
3.X5	Status Light Off Out	FC 1, FC 2	1=Active
3.X6	Status Light Dim Out	FC 1, FC 2	1=Active
3.X7	Fire and Gas Out	FC 1, FC 2	1=Active
3.X8	Status Light Suppressed	FC 1, FC 2	1=Active
3.X9	Status Lights Sync Out	FC 1, FC 2	1=Active
3.X10	Main L1 Alarm Freq Out	FC 1, FC 2	1=Active
3.X11	Repeater L2 Alarm Freq Out	FC 1, FC 2	1=Active
3.X12	Repeater L2 Alarm Freq Out	FC 1, FC 2	1=Active
3.X13	Main L2 Alarm Freq Out	FC 1, FC 2	1=Active
3.X14	Main L1 Alarm Status	FC 1, FC 2	1=Active
3.X15	Repeater L1 Alarm Status	FC 1, FC 2	1=Active
4.X0	Main L2 Alarm Status	FC 5, FC 15	1=Active
4.X1	Repeater L2 Alarm Status	FC 5, FC 15	1=Active
4.X2	Status Lights Common Alarm	FC 5, FC 15	1=Active
4.X8	Status Light Suppressi WA	FC 5, FC 15	1= Command signal
4.X9	Status Light Suppress	FC 5, FC 15	Writes on rising edge of 0.X8. 1= Command signal
4.X10	Cbm Reset In WA	FC 5, FC 15	1= Command signal
4.X11	Cbm Reset	FC 5, FC 15	Writes on rising edge of 0.X10. 1= Command signal
4.X12	Status Light Activate WA	FC 5, FC 15	1= Command signal
4.X13	Status Light Activate	FC 5, FC 15	Writes on rising edge of 0.X12. 1= Command signal
4.X14	Status Light Dim WA	FC 5, FC 15	1= Command signal
4.X15	Status Light Dim	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal



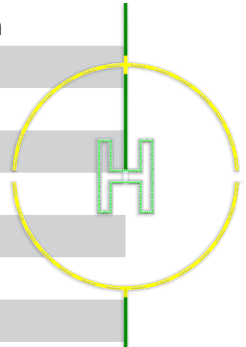
FLOODLIGHTS

Register address	Variable	Function code	Description
5.X0	Flood Light 1 Off W Alarm	FC 1, FC 2	1= Active
5.X1	Flood Light 1 On W Alarm	FC 1, FC 2	1= Active
5.X2	Flood Lights On Out	FC 1, FC 2	1= Active
5.X3	Flood Lights Dim Status	FC 1, FC 2	1= Active
5.X4	Flood Lights Dim Out	FC 1, FC 2	1=Active
5.X5	Flood Lights 1 CB Fault HMI	FC 1, FC 2	1=Active
5.X6	Flood Light 2 Off W Alarm	FC 1, FC 2	1=Active
5.X7	Flood Light 2 On W Alarm	FC 1, FC 2	1=Active
5.X8	Flood Light 2 On Out	FC 1, FC 2	1=Active
5.X9	Flood Lights 2 CB Fault HMI	FC 1, FC 2	1=Active
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6.X8	Flood Light 1 Activate WA	FC 5, FC 15	1= Command signal
6.X9	Flood Light 1 Activate In Hmi	FC 5, FC 15	Writes on rising edge of 0.X8. 1= Command signal
6.X10	Flood Light 1 Dim In Hmi	FC 5, FC 15	1= Command signal
6.X11	Flood Light 1 Dim In Hmi	FC 5, FC 15	Writes on rising edge of 0.X10. 1= Command signal
6.X12	Flood Light 2 Activate WA	FC 5, FC 15	1= Command signal
6.X13	Flood Light 2 Activate In Hmi	FC 5, FC 15	Writes on rising edge of 0.X12. 1= Command signal



CIRCLE & H

Register address	Variable	Function code	Description
7.X0	Circle H On Out	FC 1, FC 2	1= Active
7.X1	Circle H On Out Status	FC 1, FC 2	1= Active
7.X2	CircleH Bright Out	FC 1, FC 2	1= Active
7.X3	Circle H Bright Out Status	FC 1, FC 2	1= Active
7.X4	Circle H On W Alarm	FC 1, FC 2	1=Active
7.X5	Circle H Off W Alarm	FC 1, FC 2	1=Active
7.X6	CH Lights CB Fault HMI	FC 1, FC 2	1=Active
7.X12	Circle H Activate WA	FC 5, FC 15	1= Command signal
7.X13	Circle H Activate In HMI	FC 5, FC 15	Writes on rising edge of 0.X12. 1= Command signal
7.X14	Circle H Bright Cmd WA	FC 5, FC 15	1= Command signal
7.X15	Circle H Bright Cmd In HMI	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal



PERIMETER LIGHTS

Register address	Variable	Function code	Description
8.X0	Perimeter Lights 1 CB Fault HMI	FC 1, FC 2	1= Active
8.X1	Perimeter Light 1 On Out	FC 1, FC 2	1= Active
8.X2	Perimeter Light 1 On Out Status	FC 1, FC 2	1= Active
8.X3	Perimeter Light 1 On W Alarm	FC 1, FC 2	1= Active
8.X4	Perimeter Light 1 Off W Alarm	FC 1, FC 2	1=Active
9.X0	Perimeter Lights 2 CB Fault HMI	FC 1, FC 2	1=Active
9.X1	Perimeter Light 2 On Out	FC 1, FC 2	1=Active
9.X2	Perimeter Light 2 On Out Status	FC 1, FC 2	1=Active
9.X3	Perimeter Light 2 On W Alarm	FC 1, FC 2	1=Active
9.X4	Perimeter Light 2 Off W Alarm	FC 1, FC 2	1=Active
9.X12	Perimeter Light 1 Activate WA	FC 5, FC 15	1= Command signal
9.X13	Perimeter Light 1 Activate In HMI	FC 5, FC 15	Writes on rising edge of 0.X12. 1= Command signal
9.X14	Perimeter Light 2 Activate WA	FC 5, FC 15	1= Command signal
9.X15	Perimeter Light 2 Activate In HMI	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal

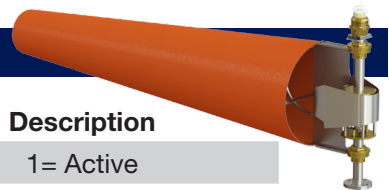


AUXILIARY LIGHTS

Register address	Variable	Function code	Description
10.X0	AuxLights 1 CB Fault HMI	FC 1, FC 2	1= Active
10.X1	Auxiliary Lights 1 On Out	FC 1, FC 2	1= Active
10.X2	Auxiliary Lights 1 On Out Status	FC 1, FC 2	1= Active
10.X3	Auxiliary Lights 1 On W Alarm	FC 1, FC 2	1= Active
10.X4	Auxiliary Lights 1 Off W Alarm	FC 1, FC 2	1=Active
10.X7	Aux Lights 2 CB FAult HMI	FC 1, FC 2	1=Active
10.X8	Auxiliary Lights 2 On Out	FC 1, FC 2	1=Active
10.X9	Auxiliary Lights 2 On Out Status	FC 1, FC 2	1=Active
10.X10	Auxiliary Lights 2 On W Alarm	FC 1, FC 2	1=Active
10.X11	Auxiliary Lights 2 Off W Alarm	FC 1, FC 2	1=Active
10.X12	Auxiliary Lights 1 Activate WA	FC 5, FC 15	1= Command signal
10.X13	Auxiliary Lights 1 Activate In HMI	FC 5, FC 15	Writes on rising edge of 0.X12. 1= Command signal
10.X14	Auxiliary Lights 2 Activate WA	FC 5, FC 15	1= Command signal
10.X15	Auxiliary Lights 2 Activate In HMI	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal

WINDSOCK

Register address	Variable	Function code	Description
11.X0	Windsock On Out	FC 1, FC 2	1= Active
11.X1	Windsock On Out Status	FC 1, FC 2	1= Active
11.X2	Windsock On W Alarm	FC 1, FC 2	1= Active
11.X3	Windsock Off W Alarm	FC 1, FC 2	1= Active
11.X4	Windsock CB Fault HMI	FC 1, FC 2	1=Active
11.X14	Windsock Activate WA	FC 5, FC 15	1= Command signal
11.X15	Windsock Activate In HMI	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal



OBSTRUCTION LIGHTS

Register address	Variable	Function code	Description
12.X0	Obstruction Light On Out	FC 1, FC 2	1= Active
12.X1	Obstruction Light On Out Status	FC 1, FC 2	1= Active
12.X2	Obstruction Light On W Alarm	FC 1, FC 2	1= Active
12.X3	Obstruction Light Off W Alarm	FC 1, FC 2	1= Active
12.X4	Obstruction Ligths CB Fault HMI	FC 1, FC 2	1=Active
12.X14	Obstruction Light Activate WA	FC 5, FC 15	1= Command signal
12.X15	Obstruction Light Activate In HMI	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal



PANEL CONTROL SETUP ENABLE/DISABLE

Register address	Variable	Function code	Description
21.X0	Status Lights Enabled	FC 1, FC 2	1= Active
21.X1	Flood Lights Enabled	FC 1, FC 2	1= Active
21.X2	Circle H Enabled	FC 1, FC 2	1= Active
21.X3	Perimeter Lights Enabled	FC 1, FC 2	1= Active
21.X4	Obstruction Lights Enabled	FC 1, FC 2	1=Active
21.X5	Windsock Enabled	FC 1, FC 2	1=Active
21.X6	Aux Lights Enabled	FC 1, FC 2	1=Active
21.X7	Aux Lights 2 Enabled	FC 1, FC 2	1=Active
21.X8	Dc Ok PS1 Enabled	FC 1, FC 2	1=Active
21.X9	Dc Ok PS2 Enabled	FC 1, FC 2	1=Active
21.X10	Dc Ok PS3 Enabled	FC 1, FC 2	1=Active
22.X0	Status LightsEnableWA	FC 5, FC 15	1= Command signal
22.X1	Status LightsEnable	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal
22.X2	Flood LightsEnableWA	FC 5, FC 15	1= Command signal
22.X3	Flood LightsEnable	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal
22.X4	Circle H Enable WA	FC 5, FC 15	1= Command signal
22.X5	Circle H Enable	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal
22.X6	Perimeter Lights Enable WA	FC 5, FC 15	1= Command signal
22.X7	Perimeter Lights Enable	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal
22.X8	Obstruction Lights Enable WA	FC 5, FC 15	1= Command signal
22.X9	Obstruction Lights Enable	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal
22.X10	Windsock Enable WA	FC 5, FC 15	1= Command signal
22.X11	Windsock Enable	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal
22.X12	Aux Lights 1 Enable WA	FC 5, FC 15	1= Command signal
22.X13	Aux Lights 1 Enable	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal
22.X14	Aux Lights 2 Enable WA	FC 5, FC 15	1= Command signal
22.X15	Aux Lights 2 Enable	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal

PANEL CONTROL SETUP ENABLE/DISABLE

Register address	Variable	Function code	Description
23.X0	Dc Ok PS 1 Enable WA	FC 5, FC 15	1= Command signal
23.X1	Dc Ok PS 1 Enable	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal
23.X2	Dc Ok PS 2 Enable WA	FC 5, FC 15	1= Command signal
23.X3	Dc Ok PS 2 Enable	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal
23.X4	Dc Ok PS 3 Enable WA	FC 5, FC 15	1= Command signal
23.X5	Dc Ok PS 3 Enable	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal

SETUP ENABLE/DISABLE

Register address	Variable	Function code	Description
25.X0	Helideck Lights Timeout Enable WA	FC 5, FC 15	1= Command signal
25.X1	Helideck Lights Timeout Enable	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal
25.X2	Dim Timeout Enable In WA	FC 5, FC 15	1= Command signal
25.X3	Dim Timeout Enable In	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal
25.X4	On Timeout Enable In WA	FC 5, FC 15	1= Command signal
25.X5	On Timeout Enable In	FC 5, FC 15	Writes on rising edge of 0.X14. 1= Command signal

HOLDING REGISTER

Register address	Variable	Function code	Description
1000	Activate Timeout Minutes	FC 3	Status Lights Timeout setpoint for Manual Activation.(Minutes)
1001	Activate Time Elapsed	FC 3	Status Lights Manual Activated duration time elapsed.
1002	Dim Timeout Minutes	FC 3	Status Lights Timeout setpoint for Dim Activation. (Minutes)
1003	Dim Activate Time Elapsed	FC 3	Status Lights Dim Activated duration time elapsed.
1004	Inspection Time Interval	FC 3	Status Light Inspection Time-out Setpoint.
1005	Inspection Time Elapsed	FC 3	Status Light Inspection duration time elapsed

TEF 4600

